

Rexroth IndraLogic XLC IndraMotion MLC 12VRS Diagnostics

R911334180
Edition 03

Reference Book



Title	Rexroth IndraLogic XLC IndraMotion MLC 12VRS Diagnostics														
Type of Documentation	Reference Book														
Document Typecode	DOK-XLCMLC-DIAG****V12-RE03-EN-P														
Internal File Reference	RS-dca0d1b375601ce50a6846a500859ce0-1-en-US-2														
Purpose of Documentation	This documentation describes the implemented diagnostics for the controls IndraLogic XLC L25, L45, L65 and IndraMotion MLC L25, L45, L65. It supports the operating crew as well as the programmer during trouble-shooting.														
Record of Revision	<table><tr><th>Edition</th><th>Release Date</th><th>Notes</th></tr><tr><td>Edition 01, only online help</td><td>02.2011</td><td>First edition 12VRS</td></tr><tr><td>Edition 02</td><td>07.2011</td><td>12V04 revised</td></tr><tr><td>Edition 03</td><td>10.2012</td><td>12V08, Open loop</td></tr></table>			Edition	Release Date	Notes	Edition 01, only online help	02.2011	First edition 12VRS	Edition 02	07.2011	12V04 revised	Edition 03	10.2012	12V08, Open loop
Edition	Release Date	Notes													
Edition 01, only online help	02.2011	First edition 12VRS													
Edition 02	07.2011	12V04 revised													
Edition 03	10.2012	12V08, Open loop													
Copyright	© Bosch Rexroth AG 2012 This document, as well as the data, specifications and other information set forth in it, are the exclusive property of Bosch Rexroth AG. It may not be reproduced or given to third parties without its consent.														
Liability	The specified data is intended for product description purposes only and shall not be deemed to be a guaranteed characteristic unless expressly stipulated in the contract. All rights are reserved with respect to the content of this documentation and the availability of the product.														
Published by	Bosch Rexroth AG Bgm.-Dr.-Nebel-Str. 2 ■ 97816 Lohr a. Main, Germany Phone +49 9352 18 0 ■ Fax +49 9352 18 8400 http://www.boschrexroth.com/ DC-IA/EAY2 (vha/MePe)														
Note	This document has been printed on chlorine-free bleached paper.														

Table of Contents

	Page
1 About this Documentation.....	35
1.1 Validity of the Documentation.....	35
1.2 Documentation Structure.....	35
1.3 Required and Supplementing Documentations.....	35
1.4 Information Representation.....	40
1.4.1 Safety Instructions.....	40
1.4.2 Symbols Used.....	40
1.4.3 Names and Abbreviations.....	40
2 General Information on the XLC/MLC Diagnostic System.....	43
2.1 Structure of an XLC/MLC Diagnostics.....	43
2.2 Diagnostic Numbers and Texts in the IndraControl L25/L45/L65 Display.....	44
2.3 Diagnostic Numbers and Diagnostic Texts in the "Error/Diagnostics Memory", IndraWorks MLC/XLC.....	45
2.4 Diagnostic Numbers in the PLC Program.....	47
2.5 Implementing Diagnostic Messages.....	48
2.5.1 IndraDrive/HydraulicDrive Drive Errors	48
2.5.2 IndraDrive/HydraulicDrive Drive Warnings	49
2.5.3 Virtual Axis, Error Messages.....	50
2.5.4 SercosDrive, Pack Profile, Error Messages.....	50
2.5.5 sercos Error Messages.....	51
2.5.6 Command error message.....	51
2.5.7 User Diagnostics, Transfer of Diagnostics from the PLC Program to the Logbook.....	51
2.6 Overview: XLC/MLC Diagnostic Parameters.....	52
3 MLC_TABLE Diagnostics.....	55
3.1 Diagnostics on Errors Impeding Control Startup.....	55
3.1.1 Diagnostics on Errors Impeding Control Startup, General Information.....	55
3.1.2 UNSUPPHW.....	55
3.1.3 ERROR_IP.....	55
3.2 Messages.....	55
3.2.1 Messages, General Information.....	55
3.2.2 A00B0005, Drive message.....	56
3.2.3 A00B0007, sercos driver: ZeroBit, Test mode, Zero bit stream.....	56
3.2.4 A00B0008, sercos driver: LightOn, Test mode, Continuous light on.....	56
3.2.5 A00B0009, sercos driver: LightOff, Test mode, Continuous light off.....	56
3.2.6 A00B0020, Hardware initialization, don't switch off the control.....	56
3.2.7 A00B0161, Set point transfer error.....	56
3.2.8 A00C0001, BOOT END, boot up of control finished.....	57
3.2.9 A00C0002, ErrClear, error cleared.....	57
3.2.10 A00C0003, BOOTWAIT, startup delay active.....	57
3.2.11 A00D0001, Warning.....	57
3.2.12 A00D0002, Info.....	57
3.2.13 A00D0010, PLC user task watchdog expired.....	57

Table of Contents

	Page
3.2.14 A00D0011, Hardware watchdog expired.....	57
3.2.15 A00D0012, Bus error.....	57
3.2.16 A00D0013, Checksum error.....	58
3.2.17 A00D0014, Field bus error.....	58
3.2.18 A00D0015, Error while I/O update.....	58
3.2.19 A00D0016, Cycletime exceeded.....	58
3.2.20 A00D0017, Not enough memory.....	58
3.2.21 A00D0018, Online change not possible.....	58
3.2.22 A00D0019, Not enough memory.....	59
3.2.23 A00D001A, Boot project not loaded, retain variables not relocatable.....	59
3.2.24 A00D001B, Boot project not loaded and deleted.....	59
3.2.25 A00D001C, System memory very low (memory leak).....	59
3.2.26 A00D001D, Retain memory corrupt or cannot be mapped.....	59
3.2.27 A00D001E, Boot project that could be loaded but caused a crash later.....	59
3.2.28 A00D001F, Not enough memory for target visu.....	59
3.2.29 A00D0020, Not enough memory for configuration.....	59
3.2.30 A00D0021, Target ID (bootproject) doesn't match the current target.....	59
3.2.31 A00D0022, Error at scheduling tasks.....	60
3.2.32 A00D0023, Checksum error at transfer of file.....	60
3.2.33 A00D0024, Retain identity does not match to bootproject identity.....	60
3.2.34 A00D0025, Task could not be created.....	60
3.2.35 A00D0026, Task could not be stopped.....	60
3.2.36 A00D0050, Illegal instruction.....	60
3.2.37 A00D0051, Access violation.....	60
3.2.38 A00D0052, Privileged instruction.....	60
3.2.39 A00D0053, Page fault.....	61
3.2.40 A00D0054, Stack overflow.....	61
3.2.41 A00D0055, Invalid disposition.....	61
3.2.42 A00D0056, Invalid handle.....	61
3.2.43 A00D0057, Access on guarded page.....	61
3.2.44 A00D0058, Double fault.....	61
3.2.45 A00D0059, Invalid Opcode.....	61
3.2.46 A00D0100, Access on odd address.....	61
3.2.47 A00D0101, Array bounds exceeded.....	62
3.2.48 A00D0102, Division by zero.....	62
3.2.49 A00D0103, Overflow.....	62
3.2.50 A00D0104, Non continuable exception.....	62
3.2.51 A00D0150, FPU, Unspecified error.....	62
3.2.52 A00D0151, FPU, Denormal operand.....	62
3.2.53 A00D0152, FPU, Division by zero.....	62
3.2.54 A00D0153, FPU, Inexact result.....	63
3.2.55 A00D0154, FPU, Invalid operation.....	63
3.2.56 A00D0155, FPU, Overflow.....	63
3.2.57 A00D0156, FPU, Stack check failed.....	63
3.2.58 A00D0157, FPU, Underflow.....	63
3.2.59 A00D0158, Specific diagnosis of node.....	63

Table of Contents

	Page
3.2.60 A00D07D0, Fatal error: Communication.....	63
3.2.61 A00D07D1, Fatal error: Semaphores.....	63
3.2.62 A00D07D2, Fatal error: Memory management.....	63
3.2.63 A00D07D3, Rexroth-Inline configuration mismatch from node.....	64
3.2.64 A00D07D4, File not written ().....	64
3.2.65 A00D07E3, PLC can not be started with pending error - RESET.....	64
3.2.66 A00D07E4, Array lower bounds violation - RESET.....	64
3.2.67 A00D07E5, Array upper bounds violation - RESET.....	65
3.2.68 A00D07E6, Division (8bit) by zero - RESET.....	65
3.2.69 A00D07E7, Division (16bit) by zero - RESET.....	65
3.2.70 A00D07E8, Division (32bit) by zero - RESET.....	66
3.2.71 A00D07E9, Division (REAL) by zero - RESET.....	66
3.2.72 A00D07EA, Lower range bounds (unsigned) violation - RESET.....	66
3.2.73 A00D07EB, Upper range bounds (unsigned) violation - RESET.....	67
3.2.74 A00D07EC, Lower range bounds (signed) violation - RESET.....	67
3.2.75 A00D07ED, Upper range bounds (signed) violation - RESET.....	67
3.2.76 A00D07EE, Division (LREAL) by zero - RESET.....	68
3.2.77 A00D07EF, Invalid pointer access (address) - RESET.....	68
3.2.78 A00D07F0, Invalid pointer access (area) - RESET.....	68
3.2.79 A00D07F1, Invalid pointer access (Write access on input) - RESET.....	69
3.2.80 A00D07F2, Invalid pointer access (Alignment) - RESET.....	69
3.2.81 A00D07F7, PLC can not be started with pending error - RESET.....	69
3.2.82 A00D07F8, Array lower bounds violation - Index modified to MIN!.....	70
3.2.83 A00D07F9, Array upper bounds violation - Index modified to MAX!.....	70
3.2.84 A00D07FA, Division (8bit) by zero - Divisor modified to 1!.....	70
3.2.85 A00D07FB, Division (16bit) by zero - Divisor modified to 1!.....	71
3.2.86 A00D07FC, Division (32bit) by zero - Divisor modified to 1!.....	71
3.2.87 A00D07FD, Division (REAL) by zero - Divisor modified to 1.0!.....	71
3.2.88 A00D07FE, Lower range bounds (unsigned) violation - Value to MIN!.....	72
3.2.89 A00D07FF, Upper range bounds (unsigned) violation - Value to MAX!.....	72
3.2.90 A00D0800, Lower range bounds (signed) violation - Value to MIN!.....	72
3.2.91 A00D0801, Upper range bounds (signed) violation - Value to MAX!.....	73
3.2.92 A00D0802, Division (LREAL) by zero - Divisor modified to 1.0!.....	73
3.2.93 A00D0803, Invalid pointer access (address) - Pointer to dummy!.....	73
3.2.94 A00D0804, Invalid pointer access (area) - Pointer to dummy!.....	74
3.2.95 A00D0805, Invalid pointer access (write on input)- Pointer to dummy!.....	74
3.2.96 A00D0806, Invalid pointer access (alignment) - Pointer to dummy!.....	74
3.2.97 A00D0807, Identification PROFINET device.....	75
3.2.98 A00D1200, WriteParameter, data type not supported by POU.....	75
3.2.99 A00D1201, WriteParameter, data type not supported by POU.....	75
3.2.100 A00D1202, WriteParameter, data type not supported by POU.....	76
3.2.101 A00D1203, WriteParameter, data type not supported by POU.....	76
3.2.102 A00D1204, WriteParameter, data type not supported by POU.....	76
3.2.103 A00D2EE4, Module error Inline bus goes.....	77
3.2.104 A00E0001, No entry found in data base.....	77
3.2.105 A00E0002, OK.....	77

Table of Contents

	Page
3.2.106 A0110001, Axis has been removed.....	77
3.2.107 A0110002, Axis has been created.....	77
3.2.108 A0200001, P0 STOP, reached phase 0, PLC in stop.....	77
3.2.109 A0200002, P1 STOP, reached phase 1, PLC in stop.....	77
3.2.110 A0200003, P2 STOP, reached phase 2, PLC in stop.....	77
3.2.111 A0200004, P3 STOP, reached phase 3, PLC in stop.....	78
3.2.112 A0200005, BB STOP, Motion ready, PLC in stop.....	78
3.2.113 A0200006, P0 RUN, reached phase 0, PLC in run.....	78
3.2.114 A0200007, P1 RUN, reached phase 1, PLC in run.....	78
3.2.115 A0200008, P2 RUN, reached phase 2, PLC in run.....	78
3.2.116 A0200009, P3 RUN, reached phase 3, PLC in run.....	78
3.2.117 A0200010, BB RUN, Motion ready, PLC in run.....	79
3.2.118 A0200011, P0 INIT, reached phase 0, PLC in init.....	79
3.2.119 A0200012, P1 INIT, reached phase 1, PLC in init.....	79
3.2.120 A0200013, P2 INIT, reached phase 2, PLC in init.....	79
3.2.121 A0200014, P3 INIT, reached phase 3, PLC in init.....	79
3.2.122 A0200015, BB INIT, Motion ready, PLC in init.....	80
3.2.123 A0200016, Firmware download successfully finished.....	80
3.2.124 A0200017, Hardware changed; Restoring NVRAM.....	80
3.2.125 A0200018, Restoring NVRAM.....	80
3.2.126 A0200020, Power cycle of control necessary.....	80
3.2.127 A0200021, P0 RDY, reached phase 0, PLC in ready.....	81
3.2.128 A0200022, P1 RDY, reached phase 1, PLC in ready.....	81
3.2.129 A0200023, P2 RDY, reached phase 2, PLC in ready.....	81
3.2.130 A0200024, P3 RDY, reached phase 3, PLC in ready.....	81
3.2.131 A0200025, BB RDY, Motion ready, PLC in ready.....	81
3.2.132 A0200026, Time write-protected because LINK slave.....	82
3.2.133 A0200027, Finishing download, don't switch off the control.....	82
3.2.134 A0200028, PLC runtime incompatible, application invalid.....	82
3.2.135 A0200030, INIT, PLC in init.....	82
3.2.136 A0200031, RDY, PLC in ready.....	82
3.2.137 A0200032, STOP, PLC in stop.....	82
3.2.138 A0200033, RUN, PLC in run.....	83
3.2.139 A0290001, Kinematics has been removed.....	83
3.2.140 A0290002, Kinematics has been created.....	83
3.2.141 A03A0002, Online change.....	83
3.2.142 A03A3001, Messages from DCC-Components.....	83
3.3 Warnings.....	83
3.3.1 General Information.....	83
3.3.2 E000****, Drive Warning with Warning Number E****	83
3.3.3 E00B0001, ASIC Error.....	83
3.3.4 E00B0005, Drive warning.....	83
3.3.5 E00C0001, Parameter inconsistent, restorage via C-0-1001.....	84
3.3.6 E00C0002, Running on unsupported hardware.....	84
3.3.7 E00C0003, Running on unsupported hardware revision.....	84
3.3.8 E00C0004, Running on unsupported hardware revision.....	84

Table of Contents

	Page
3.3.9 E00D0004, Acyclic communication active yet.....	85
3.3.10 E00D1001, Writeaccess to parameter S-0-0000 of UserCmdDataX.....	85
3.3.11 E00D1002, Unknown PLC system task.....	85
3.3.12 E00D2EE0, Nonconforming Inline IO Configuration.....	85
3.3.13 E00E0026, Version conflict in error logbook, logbook deleted!.....	85
3.3.14 E00E0050, Logbook is inconsistent. Faulty entries deleted.....	86
3.3.15 E0110001, Axis in 'PowerOn'.....	86
3.3.16 E0110002, Axis not in 'StandStill'.....	86
3.3.17 E0110029, Positive travel limit exceeded.....	86
3.3.18 E0110030, Negative travel limit exceeded.....	87
3.3.19 E0110050, Axis position is extrapolated.....	87
3.3.20 E0110100, Control axis in warning.....	88
3.3.21 E0110101, Control axis, command in PLC-Stop or breakpoint refused.....	88
3.3.22 E0112039, Maximum acceleration exceeded.....	88
3.3.23 E0112047, Velocity of interpolation = 0.....	88
3.3.24 E0112048, Acceleration of interpolation = 0.....	88
3.3.25 E0112049, Positioning velocity greater than limit (A-0-0032/ 33).....	88
3.3.26 E0112055, Feedrate Override A-0-0240=0.....	89
3.3.27 E0112063, Commanded velocity greater than Limit (A-0-0032/ 33).....	89
3.3.28 E0113001, Maximum jerk exceeded.....	89
3.3.29 E0113002, Velocity too high for cycletime.....	89
3.3.30 E0113003, Dynamic jerk adjust active.....	90
3.3.31 E0170001, Configured master axis is parking.....	90
3.3.32 E0180005, Warning: Motion kernel exceeded control cycle time.....	90
3.3.33 E0200000, Usable memory (RAM) near minimum.....	91
3.3.34 E0200001, Usable memory (CF) near minimum.....	91
3.3.35 E0200002, Temperature warning.....	92
3.3.36 E0200003, CPU-Load critical.....	92
3.3.37 E0200004, Usable memory (USR) near minimum.....	93
3.3.38 E0200005, Usable memory (SYS) near minimum.....	93
3.3.39 E0200006, Usable memory (OEM) near minimum.....	93
3.3.40 E0200007, Battery of SRAM module low.....	94
3.3.41 E0200009, Modified functionality of sercos FMs, reboot is necessary.....	94
3.3.42 E0200010, Modif. nr of com. sercos FMs, reboot may be necessary.....	95
3.3.43 E0200011, Invalid commanded config. of drive ring via sercos FM.....	96
3.3.44 E0200012, Invalid commanded config. of link ring via sercos FM.....	96
3.3.45 E0200013, Error in SYS-partition, check done.....	96
3.3.46 E0200014, Error in OEM-partition, check done.....	97
3.3.47 E0200015, Error in USR-partition, check done.....	97
3.3.48 E0200016, Rem. memory (NVRAM) near min. - reboot may be necessary.....	97
3.3.49 E02C00B7, Velocity of the axis too high.....	98
3.3.50 E02C00B8, Velocity of the axis too high.....	98
3.3.51 E02C0184, Vector assignment with different components.....	98
3.3.52 E02C085E, SRAM batterie low.....	98
3.3.53 E02C0880, Axis deactivated.....	99
3.3.54 E02C08CF, Resulting path velocity too high.....	99

Table of Contents

	Page
3.3.55 E02C08D2, Resulting path velocity too high.....	99
3.3.56 E02C08D3, Resulting path velocity too high.....	99
3.3.57 E02C08D4, Resulting path velocity too high.....	99
3.3.58 E02C08D5, Resulting path velocity too high.....	99
3.3.59 E02C08D6, Resulting path velocity too high.....	100
3.3.60 E02C08D7, Resulting path velocity too high.....	100
3.3.61 E02C08DF, No name specified with call of SET_RK_SYSTEM.....	100
3.3.62 E02C0900, Blending error: Interpolator.....	100
3.3.63 E02C0901, Blending error: Lead distance of the spline too high.....	100
3.3.64 E02C0902, Blending error: Deceleration distance too short.....	101
3.3.65 E02C0903, Blending error: Radius too small.....	101
3.3.66 E02C0904, Blending error: Lead distance of the spline exceeded.....	101
3.3.67 E02C0905, Blending error: Point invalid.....	101
3.3.68 E02C0906, Blending error: Parameter length of the spline invalid.....	101
3.3.69 E02C0907, Blending error: Spline function invalid.....	101
3.3.70 E02C0908, Blending error: Arc length of the spline invalid.....	101
3.3.71 E02C0909, Blending error: Inverse path length function invalid.....	102
3.3.72 E02C090A, Blending error: Spline interpolator.....	102
3.3.73 E02C090B, Blending error: Spline invalid.....	102
3.3.74 E02C090C, Blending error: Shorten path at the end.....	102
3.3.75 E02C090D, Blending error: Shorten path at the beginning.....	102
3.3.76 E02C090E, Blending error: Calc.of the deceleration distance incorrect.....	102
3.3.77 E0350154, RCL Compiler: Character not read.....	102
3.3.78 E0350175, RCL Compiler: Symbols will be ignored up to end of file.....	103
3.3.79 E0350176, RCL Compiler: Symbols up to end of file will be ignored.....	103
3.3.80 E0350187, RCL Compiler: Only EXTERN and GLOBAL permitted.....	103
3.3.81 E035021C, RCL Compiler: No defined variable as BINARY declared.....	103
3.3.82 E035021D, RCL Compiler: No defined variable as CHAR declared.....	103
3.3.83 E0350236, RCL Compiler: Implicit point definition.....	103
3.3.84 E0350246, RCL Compiler: Illegal alignment.....	103
3.3.85 E0370001, System overloaded.....	103
3.3.86 E03C0001, Check of integrity of XML configuration failed.....	104
3.3.87 E039****, PLC Warnings from the 3S Kernel	104
3.3.88 E03A****, PLC Warnings from Company Components.....	104
3.4 C0 Errors, Non-Fatal Errors.....	104
3.4.1 C0 Errors, Error Reaction.....	104
3.4.2 C0280101, C2C-C0100: incomplete/invalid parameter set.....	104
3.4.3 C0280102, C2C-C0100: communication parameter limit exceeded.....	105
3.4.4 C0280108, C2C-C0100: invalid timing parameter (cycle time).....	105
3.4.5 C0280109, C2C-C0100: invalid offset in HotPlug field (MDT address).....	105
3.4.6 C0280113, C2C-C0100: invalid ratio of cycle times (motion/sercos).....	106
3.4.7 C0280171, C2C-C0100: maximum length for connections exceeded.....	106
3.4.8 C0280172, C2C-C0100: no delay measuring executed (S-0-1024).....	106
3.4.9 C0280173, C2C-C0100: maximum number of connections exceeded.....	107
3.5 F0 Errors, Non-Fatal Errors.....	107
3.5.1 F0 Errors, Error Reaction.....	107

Table of Contents

	Page
3.5.2 F0020001 up to F0050013, RTOS Error (Real Time Operating System)	107
3.5.3 F0070001, Size of parameter changed.....	107
3.5.4 F00A0001, Parameter write-error during import, see C-0-0114.....	107
3.5.5 F00A0002, Import/Export: File could not be opened.....	108
3.5.6 F00A0003, Import/Export: Unknown parameter type.....	108
3.5.7 F00A0004, Import: Length of line in import file exceeds maximum.....	108
3.5.8 F00A0005, Import/Export: Unsupported sercos parameter format.....	108
3.5.9 F00B0003, sercos bus not closed.....	108
3.5.10 F00B0006, Progression to phase 3 not possible.....	109
3.5.11 F00B0007, Progression to state ready not possible.....	109
3.5.12 F00B0008, Drive not found.....	109
3.5.13 F00B0009, Maximum number of axes exceeded.....	110
3.5.14 F00B0013, MC cycletime too less.....	110
3.5.15 F00B0014, Parameter write-protected by password.....	110
3.5.16 F00B0090, RTOS error (Real Time Operating System).....	110
3.5.17 F00B0098, Cannot write on parameter S-0-0015.....	110
3.5.18 F00B0099, Cannot write on parameter S-0-0016.....	110
3.5.19 F00B0100, Cannot write on parameter S-0-0024.....	110
3.5.20 F00B0101, Cannot write on parameter S-0-0007.....	111
3.5.21 F00B0102, Cannot read time slot parameter.....	111
3.5.22 F00B0103, Cannot read time slot parameter.....	111
3.5.23 F00B0104, Cannot write on time slot parameter.....	111
3.5.24 F00B0105, Cannot write on time slot parameter.....	112
3.5.25 F00B0121, sercos: IO Error.....	112
3.5.26 F00B0130, sercos III: Connection configuration not read/writeable.....	112
3.5.27 F00B0131, sercos III: Parameter for configuration not writeable.....	113
3.5.28 F00B0132, sercos III: Communication capabilities not readable.....	114
3.5.29 F00B0133, sercos III: Error in transfer of configuration.....	114
3.5.30 F00B0134, sercos III: Connection configuration error.....	114
3.5.31 F00B0135, sercos III: Error in phaseswitch to CP1.....	114
3.5.32 F00B0136, sercos III: Error in phaseswitch to CP1.....	114
3.5.33 F00B0137, sercos III: Max. number of MDT-Data exceeded.....	115
3.5.34 F00B0138, sercos III: Max. number of AT-Data exceeded.....	115
3.5.35 F00B0139, sercos III: Cycletime exceeded.....	115
3.5.36 F00B0140, sercos III: Length of connection inconsistent.....	115
3.5.37 F00B0141, sercos III: Length of connection greater than max.....	115
3.5.38 F00B0142, sercos III: Cycletime of connection inconsistent.....	116
3.5.39 F00B0143, sercos III: Connection Number not unique.....	116
3.5.40 F00B0144, sercos III: Error in type of configuration.....	116
3.5.41 F00B0145, sercos III: Max. number of connections exceeded.....	116
3.5.42 F00B0146, sercos III: Wrong number of connections.....	116
3.5.43 F00B0147, sercos III: SCP classification error.....	117
3.5.44 F00B0148, sercos III: Error in procedure command S-0-0128.....	117
3.5.45 F00B0149, sercos III: Error in procedure command S-0-0127.....	117
3.5.46 F00B0150, sercos III: Bus not stable.....	117
3.5.47 F00B0151, sercos Address not valid.....	117

Table of Contents

	Page
3.5.48 F00B0152, sercos Addresses inconsistent.....	117
3.5.49 F00B0153, sercos III: Error in phaseswitch to CP2.....	118
3.5.50 F00B0154, sercos III: Error in phaseswitch to CP2.....	118
3.5.51 F00B0155, sercos III: Error in phaseswitch to CP3.....	118
3.5.52 F00B0156, sercos III: Error in phaseswitch to CP3.....	118
3.5.53 F00B0157, sercos III: Error in phaseswitch to CP4.....	119
3.5.54 F00B0158, sercos III: Error in phaseswitch to CP4.....	119
3.5.55 F00B0159, Error in transfer of configuration.....	119
3.5.56 F00B0160, Error in transfer of configuration.....	119
3.5.57 F00B0164, Control timing error (T4).....	119
3.5.58 F00B0165, Drive error.....	120
3.5.59 F00B0166, sercos III: Insufficient FPGA-TxRam.....	120
3.5.60 F00B0167, sercos III: Insufficient FPGA-RxRam.....	120
3.5.61 F00B0168, sercos III: Bus configuration inconsistent.....	120
3.5.62 F00B0169, sercos III: Data format in C-0-0520 not valid.....	121
3.5.63 F00B016A, sercos III: Invalid sercos address.....	121
3.5.64 F00B016B, sercos III: Connection number already used.....	121
3.5.65 F00B016C, sercos III: Connection instance already used.....	121
3.5.66 F00B016D, sercos III: Connection instance not valid.....	121
3.5.67 F00B016E, sercos III: Configuration too large.....	122
3.5.68 F00B016F, sercos III: Max. number of connections exceeded.....	122
3.5.69 F00B0170, sercos III: Max. number of real-time bits exceeded.....	122
3.5.70 F00B0171, sercos III: Max. number of IDN for one connection exceeded.....	122
3.5.71 F00B7010, Command already set.....	123
3.5.72 F00C0001, Error while setting module references.....	123
3.5.73 F00C0003, Error in power up delay.....	123
3.5.74 F00C0004, Error while switching to power up target mode.....	123
3.5.75 F00C0005, Error remanent data; data cleared.....	123
3.5.76 F00C0006, Error remanent data; restored last backup.....	124
3.5.77 F00C0007, Firmware does not fit hardware.....	125
3.5.78 F00D0002, Axis access error.....	125
3.5.79 F00D0060, Maximum number of PLC applications exceeded.....	125
3.5.80 F00D0300, Output shorted.....	125
3.5.81 F00D0301, Voltage supply dropped.....	126
3.5.82 F00D0302, Watchdog error.....	126
3.5.83 F00D0303, Module removed.....	126
3.5.84 F00D0304, Fault repaired.....	126
3.5.85 F00D0305, Multiple error, fast IOs.....	126
3.5.86 F00D1002, Cyclic position channel already open.....	127
3.5.87 F00D1003, Cyclic force channel already open.....	127
3.5.88 F00D1004, Cyclic velocity channel already open.....	127
3.5.89 F00D1005, Cyclic analog channel already open.....	127
3.5.90 F00D100A, Error while reading C-0-0483.....	127
3.5.91 F00D100B, Error while reading C-0-0484.....	127
3.5.92 F00D100C, Error while opening cyclic channel.....	127
3.5.93 F00D100D, Error while opening cyclic channel.....	128

Table of Contents

	Page
3.5.94 F00D1014, No reference for opening cyclic channel available.....	128
3.5.95 F00D1016, Wrong #-address of axis data.....	128
3.5.96 F00D1017, Wrong #-address of axis data.....	128
3.5.97 F00D1018, Wrong #-address of axis data.....	128
3.5.98 F00D1019, Error while closing cyclic channel.....	129
3.5.99 F00D1027, Error while closing cyclic channel.....	129
3.5.100 F00D102A, ListParameter requested, ReadParameter.....	129
3.5.101 F00D1030, Error while closing cyclic channel.....	129
3.5.102 F00D103B, Invalid control number.....	129
3.5.103 F00D103C, Invalid axis number.....	129
3.5.104 F00D1205, Error, cannot handle a single parameter.....	129
3.5.105 F00D1207, Error, data greater 64KBytes.....	130
3.5.106 F00D1210, Error, cannot handle a single parameter.....	130
3.5.107 F00D1211, Error ReadSERCOSDataStatus, no memory available.....	130
3.5.108 F00D1218, Error, no memory available.....	130
3.5.109 F00D1219, Error, cannot handle a single parameter.....	130
3.5.110 F00D1220, Unsupported selection of sercos element.....	130
3.5.111 F00D1221, Timeout on parameter access.....	131
3.5.112 F00D1222, Too many data to transmit.....	131
3.5.113 F00D1224, Error, no memory available.....	131
3.5.114 F00D1225, Error, cannot handle a single parameter.....	131
3.5.115 F00D1227, Error while writing date.....	132
3.5.116 F00D1230, Error ReadSERCOSAttribute, no memory available.....	132
3.5.117 F00D2001, Access error, axis 1.....	132
3.5.118 F00D2002, Access error, axis 2.....	132
3.5.119 F00D2003, Access error, axis 3.....	133
3.5.120 F00D2004, Access error, axis 4.....	133
3.5.121 F00D2005, Access error, axis 5.....	133
3.5.122 F00D2006, Access error, axis 6.....	134
3.5.123 F00D2007, Access error, axis 7.....	134
3.5.124 F00D2008, Access error, axis 8.....	134
3.5.125 F00D2009, Access error, axis 9.....	134
3.5.126 F00D200A, Access error, axis 10.....	135
3.5.127 F00D200B, Access error, axis 11.....	135
3.5.128 F00D200C, Access error, axis 12.....	135
3.5.129 F00D200D, Access error, axis 13.....	136
3.5.130 F00D200E, Access error, axis 14.....	136
3.5.131 F00D200F, Access error, axis 15.....	136
3.5.132 F00D2010, Access error, axis 16.....	137
3.5.133 F00D2064, Axis not configured.....	137
3.5.134 F00D2EE1, Fatal error: Inline los.....	137
3.5.135 F00D2EE2, An untreated Inlinebus error has occurred.....	138
3.5.136 F00D2EE3, Reset on Inlinebus occured.....	138
3.5.137 F00D2EE5, Module error Inline bus comes.....	138
3.5.138 F00D2EE7, System at the maximum load.....	139
3.5.139 F00F0001 up to F00F0006, RTOS Error (Real Time Operating System).....	139

Table of Contents

	Page
3.5.140 F0110001, No power turned.....	139
3.5.141 F0110010, Error while synchronization of system time of the drive.....	139
3.5.142 F0140001, Error in device configuration.....	140
3.5.143 F0160001 up to F0160002, RTOS Error (Real Time Operating System).....	140
3.5.144 F0160003, Error while changing to P0.....	140
3.5.145 F0160004, Error while changing to P0.....	140
3.5.146 F0160005, Error while changing to P2.....	141
3.5.147 F0160006, Error while changing to P2.....	141
3.5.148 F0160008, Error while changing to P3.....	141
3.5.149 F0160009, Error while changing to P3.....	141
3.5.150 F0160010, Error while changing to P3.....	142
3.5.151 F0160011, Error during preparation for changing to P2.....	142
3.5.152 F0160012, Error while changing to BB.....	142
3.5.153 F0160013, Error while changing to BB.....	142
3.5.154 F0160014, Error while changing to BB.....	142
3.5.155 F0160015 up to F0160023, RTOS Error (Real Time Operating System)	143
3.5.156 F0160024, Error in cross-check C-parameters.....	143
3.5.157 F0160025, Error in cross-check A-parameters.....	143
3.5.158 F0160026 up to F0160029, RTOS Error (Real Time Operating System)	143
3.5.159 F0160032, Error while changing to P2.....	143
3.5.160 F0160033, Error while changing to P2.....	144
3.5.161 F0160034, Error while changing to P3.....	144
3.5.162 F0160035, Error during configuration of link communication.....	144
3.5.163 F0160036, Error during configuration of link communication.....	144
3.5.164 F0160037, Error during configuration of link communication.....	145
3.5.165 F0160038, Unable to deactivate link axes.....	145
3.5.166 F0160040, Error in cross-check K-parameters.....	145
3.5.167 F0180008, Motion kernel exceeded control cycle time.....	146
3.5.168 F0180009, Calculation of actual values exceeded cycle time.....	146
3.5.169 F01B0000, RTOS error (Real Time Operating System).....	147
3.5.170 F01B0001, RTOS error (Real Time Operating System).....	147
3.5.171 F01B0002, RTOS error (Real Time Operating System).....	147
3.5.172 F01B0003, RTOS error (Real Time Operating System).....	148
3.5.173 F01B0004, RTOS error (Real Time Operating System).....	148
3.5.174 F01B0005, RTOS error (Real Time Operating System).....	148
3.5.175 F01B0006, RTOS error (Real Time Operating System).....	148
3.5.176 F01B0007, RTOS error (Real Time Operating System).....	149
3.5.177 F01B0008, RTOS error (Real Time Operating System).....	149
3.5.178 F01B0009, RTOS error (Real Time Operating System).....	149
3.5.179 F01B0010, RTOS error (Real Time Operating System).....	149
3.5.180 F01B0011, Error while starting DHCP client.....	149
3.5.181 F01B0012, Error while starting DHCP client.....	149
3.5.182 F01B0013, Error DHCP Client - No lease, default restored.....	150
3.5.183 F01D0001 bis F01D0014, Error RTOS (Real Time Operating System)	150
3.5.184 F0200001, Firmware download failed.....	150
3.5.185 F0200002, Firmware download failed.....	150

Table of Contents

	Page
3.5.186 F0200003, Firmware download failed.....	150
3.5.187 F0200004, Firmware download failed.....	150
3.5.188 F0200005, Firmware download failed.....	151
3.5.189 F0200006, Firmware download failed.....	151
3.5.190 F0200007, Firmware download failed.....	151
3.5.191 F0200008, Firmware download failed.....	151
3.5.192 F0200009, Firmware download failed.....	151
3.5.193 F0200010 up to F0200022, RTOS Error (Real Time Operating System)	151
3.5.194 F0200024, Firmware download failed.....	151
3.5.195 F0200025, Firmware download failed.....	152
3.5.196 F0200026, Firmware download failed.....	152
3.5.197 F0200027, Firmware download failed.....	152
3.5.198 F0200028, Firmware download failed.....	152
3.5.199 F0200029, Firmware download failed.....	152
3.5.200 F0200030, Error deleting files in SYSTEM partition.....	152
3.5.201 F0200031, Error deleting files in OEM partition.....	153
3.5.202 F0200032, Error deleting files in USER partition.....	153
3.5.203 F0200033, Storage of remanent data impossible.....	153
3.5.204 F0200036, Error initialising the hardware watchdog.....	153
3.5.205 F0200037, Error triggering the hardware watchdog.....	154
3.5.206 F0200038, Firmware download failed.....	154
3.5.207 F0200039, Firmware download failed.....	154
3.5.208 F0200040, Failure of temperature monitoring, hardware defect impends.....	154
3.5.209 F0220200, General drive error.....	155
3.5.210 F0220201, Invalid control number.....	155
3.5.211 F0220202, Invalid axis number.....	155
3.5.212 F0220203, Invalid command type.....	155
3.5.213 F0220204, Command not supported by axis.....	155
3.5.214 F0220205, Command rejected, no power.....	155
3.5.215 F0220206, Command rejected while 'Stopping'.....	156
3.5.216 F0220207, Command rejected while 'Homing'.....	156
3.5.217 F0220208, Invalid command number.....	156
3.5.218 F0220210, Reset still 'ErrorStop'.....	156
3.5.219 F0220211, Command rejected while 'Diskrete Motion'.....	157
3.5.220 F0220212, Command rejected while 'Continuous Motion'.....	157
3.5.221 F0220213, Command rejected while 'Synchronized Motion'.....	157
3.5.222 F0220214, Command rejected while 'ErrorStop'.....	157
3.5.223 F0220216, No power available.....	158
3.5.224 F0220217, Command rejected while 'StandStill' and 'PowerOn'.....	158
3.5.225 F0220218, Command rejected while 'StandStill'.....	158
3.5.226 F0220223, Velocity below minimum.....	158
3.5.227 F0220224, Velocity above maximum.....	158
3.5.228 F0220225, Acceleration below minimum.....	159
3.5.229 F0220226, Acceleration above maximum.....	159
3.5.230 F0220227, Deceleration below minimum.....	159
3.5.231 F0220228, Deceleration above maximum.....	159

Table of Contents

	Page
3.5.232 F0220229, Jerk below minimal.....	160
3.5.233 F0220230, Jerk above maximum.....	160
3.5.234 F0220232, Invalid master control number.....	160
3.5.235 F0220233, Invalid master axis number.....	160
3.5.236 F0220234, Invalid CamTable ID.....	160
3.5.237 F0220263, RatioNumerator below minimum.....	161
3.5.238 F0220264, RatioNumerator above maximum.....	161
3.5.239 F0220265, RatioDenominator below minimum.....	161
3.5.240 F0220266, RatioDenominator above maximum.....	161
3.5.241 F0220267, MasterFineAdjust below minimum.....	162
3.5.242 F0220268, MasterFineAdjust above maximum.....	162
3.5.243 F0220269, Invalid SyncMode.....	162
3.5.244 F0220270, Invalid StartMode.....	162
3.5.245 F0220271, Cam distance below minimum value.....	162
3.5.246 F0220272, Cam distance above maximum value.....	163
3.5.247 F0220273, Command rejected while 'Parameter Mode'.....	163
3.5.248 F0220274, Axis not referenced.....	163
3.5.249 F0220275, Command aborted.....	163
3.5.250 F0220276, Control error.....	163
3.5.251 F0220277, Direct master axis change.....	164
3.5.252 F0220278, Command 'Disabled axis' active.....	164
3.5.253 F0220279, Command 'parking axis' active.....	164
3.5.254 F0220280, Command rejected while 'Coordinated Motion'.....	164
3.5.255 F0220281, Invalid float data.....	164
3.5.256 F0220282, MotionProfile, SetSelection below minimum value.....	165
3.5.257 F0220283, MotionProfile, SetSelection above maximum value.....	165
3.5.258 F0220287, Unreferenced cam table object.....	165
3.5.259 F0220288, ChangeCamTable: above maximum value.....	165
3.5.260 F0220289, ChangeCamTable: below minimum value.....	165
3.5.261 F0220290, ChangeCamTable: invalid ID.....	165
3.5.262 F0220291, Unreferenced MotionProfile object.....	166
3.5.263 F0220292, ChangeMotionProfileSet: SetNumber below minimum value.....	166
3.5.264 F0220293, ChangeMotionProfileSet: SetNumber above maximum value.....	166
3.5.265 F0220294, ChangeMotionProfileSet: Selected profile write-protected.....	166
3.5.266 F0220295, ChangeMotionProfileStep, invalid StepNumber.....	166
3.5.267 F0220300, Invalid command channel.....	167
3.5.268 F0220301, Command rejected while 'Controlled Motion'.....	167
3.5.269 F0220316, ChangeFlexProfile: Length of FlexProfile lists inconsist.....	167
3.5.270 F0220317, ChangeFlexProfile: No steps in profile.....	169
3.5.271 F0220318, ChangeFlexProfile: Unknown master.....	169
3.5.272 F0220319, ChangeFlexProfile: Motion law unknown.....	169
3.5.273 F0220320, ChangeFlexProfile: Step mode unknown.....	170
3.5.274 F0220321, ChangeFlexProfile: Step range 0 or negative.....	170
3.5.275 F0220322, ChangeFlexProfile: Invalid comb. of boundary value types.....	171
3.5.276 F0220323, ChangeFlexProfile: Invalid boundary values.....	171
3.5.277 F0220324, ChangeFlexProfile: Invalid Hub.....	171

Table of Contents

	Page
3.5.278 F0220325, ChangeFlexProfile: Invalid value for turnaround point disp.....	172
3.5.279 F0220326, ChangeFlexProfile: Invalid slope.....	172
3.5.280 F0220327, ChangeFlexProfile: Invalid Cam table.....	173
3.5.281 F0220328, ChangeFlexProfile: Motion law + selected step mode.....	173
3.5.282 F0220329, ChangeFlexProfile: Velocity jump in profile.....	173
3.5.283 F0220330, ChangeFlexProfile: Acceleration jump in profile.....	174
3.5.284 F0220331, ChangeFlexProfile: Jerk jump in profile.....	174
3.5.285 F0220332, ChangeFlexProfile: Velocity limit invalid.....	175
3.5.286 F0220333, ChangeFlexProfile: Acceleration limit invalid.....	175
3.5.287 F0220334, Unreferenced FlexProfile object.....	175
3.5.288 F0220335, FlexProfile: Set is write-protected.....	176
3.5.289 F0220341, FlexEvent: Set is write-protected.....	176
3.5.290 F0220343, ChangeFlexEvent: Length of FlexProfile lists inconsistent.....	176
3.5.291 F0220344, ChangeFlexEvent: Step Number assignment is invalid.....	177
3.5.292 F0220345, ChangeFlexEvent: Trigger-Mode is invalid.....	177
3.5.293 F0220346, ChangeFlexEvent: Action-Mode is invalid.....	177
3.5.294 F0220349, ChangeFlexProfile: Jerk limit invalid.....	178
3.5.295 F0220350, ChangeFlexProfile: Limit too low.....	178
3.5.296 F0220355, ChangeFlexProfile: Invalid sequence of Flex-Steps.....	179
3.5.297 F0220360, Command rejected while 'Controlled Motion'.....	179
3.5.298 F0220361, ChangeFlexProfile: Invalid master axis source.....	179
3.5.299 F0220501, Wrong data type.....	180
3.5.300 F0220502, ProbeModule out of range.....	180
3.5.301 F0220503, ProbeInput out of range.....	180
3.5.302 F0220504, ExpectWindowPosEdgeMode out of range.....	180
3.5.303 F0220505, ExpectWindowNegEdgeMode out of range.....	181
3.5.304 F0220506, ExpectWindowPosEdgeStart out of range.....	181
3.5.305 F0220507, ExpectWindowPosEdgeEnd out of range.....	181
3.5.306 F0220508, ExpectWindowNegEdgeStart out of range.....	181
3.5.307 F0220509, ExpectWindowNegEdgeEnd out of range.....	181
3.5.308 F0220510, ExpectWindowPosEdgeSetPoint out of range.....	182
3.5.309 F0220511, ExpectWindowNegEdgeSetPoint out of range.....	182
3.5.310 F0220512, MarkerFailureEnable out of range.....	182
3.5.311 F0220513, MaxNumberOfMarkerFailure out of range.....	182
3.5.312 F0220514, Interpolation out of range.....	182
3.5.313 F0220515, TimeStampEnable out of range.....	182
3.5.314 F0220516, DeadTimePosEdge out of range.....	183
3.5.315 F0220517, DeadTimeNegEdge out of range.....	183
3.5.316 F0220518, ProbeData out of range.....	183
3.5.317 F0220519, PositionEvalMode out of range.....	183
3.5.318 F0220520, DiffEvalMode out of range.....	183
3.5.319 F0220521, TOUCHPROBE_REF is not valid or wrong configuration.....	184
3.5.320 F0220522, AXIS_REF is not valid or wrong configuration of axis.....	184
3.5.321 F0220600, Path / file name unknown.....	184
3.5.322 F0220601, Unsupported file system.....	184
3.5.323 F0220602, Input 'StartIdx' has an invalid value.....	184

Table of Contents

	Page
3.5.324 F0220603, Invalid state of state machine.....	184
3.5.325 F0220604, Error in file structure.....	184
3.5.326 F0220605, Input 'ArrayDimension' has an invalid value.....	185
3.5.327 F0220606, Point not found.....	185
3.5.328 F0220607, Wrong number of coordinates per point.....	185
3.5.329 F0220608, Wrong number of kinematics.....	185
3.5.330 F0220609, Wrong point type, point in world or joint coordinates.....	185
3.5.331 F0260001, MC_DigitalCamSwitch, Unable to acquire APS reference.....	186
3.5.332 F0260002, MC_DigitalCamSwitch, Unable to open cyclic channel.....	186
3.5.333 F0260003, MC_DigitalCamSwitch, Unable to allocate memory.....	186
3.5.334 F0260004, MC_DigitalCamSwitch, Unable to read parameter.....	186
3.5.335 F0260005, MC_DigitalCamSwitch, Invalid combination of units.....	186
3.5.336 F0260006, MC_DigitalCamSwitch, On-/Off compensation time longer 16s.....	187
3.5.337 F0260007, MC_DigitalCamSwitch, Invalid state of state machine.....	187
3.5.338 F0260010, ML_PIDType01, Low limit is higher than High limit.....	187
3.5.339 F0260011, ML_PIDType01, Invalid state of state machine.....	187
3.5.340 F0260012, ML_PIDType01, Selected controller type not supported.....	187
3.5.341 F0260030, Inputs have invalid values.....	187
3.5.342 F0260031, Invalid state of state machine.....	188
3.5.343 F0260032, Calculations resulted in invalid values.....	188
3.5.344 F0260040, Reference to base system not found.....	188
3.5.345 F0260041, Function block could not be instantiated.....	188
3.5.346 F0260042, Function block may not be located in RETAIN data area.....	188
3.5.347 F0260050, ML_CtrlJobConnect, Invalid values of inputs of POU.....	188
3.5.348 F0260051, ML_CtrlJobConnect, Set of command into queue failed.....	189
3.5.349 F0260052, ML_CtrlJobConnect, Reject of inv. command or status error.....	189
3.5.350 F0260053, ML_CtrlJobConnect, Watch dog - time out.....	190
3.5.351 F026005D, ML_CtrlJobConnect, Invalid state of I/O of POU.....	190
3.5.352 F026005E, ML_CtrlJobConnect, Invalid state of state machine of POU.....	190
3.5.353 F026005F, ML_CtrlJobConnect, Error during init of POU instance.....	190
3.5.354 F0260060, ML_ShowJobConnect, Invalid values of inputs of POU.....	191
3.5.355 F0260061, ML_ShowJobConnect, Set of command into queue failed.....	191
3.5.356 F0260062, ML_ShowJobConnect, Reject of inv. command or status error.....	191
3.5.357 F0260063, ML_ShowJobConnect, Watch dog - time out.....	191
3.5.358 F026006E, ML_ShowJobConnect, Invalid state of state machine of POU.....	191
3.5.359 F026006F, ML_ShowJobConnect, Error during init of POU instance.....	191
3.5.360 F0260070, ML_SendJobTlg, Invalid values of inputs of POU.....	191
3.5.361 F0260071, ML_SendJobTlg, Set of command into queue failed.....	191
3.5.362 F0260072, ML_SendJobTlg, Watch dog - time out.....	192
3.5.363 F026007E, ML_SendJobTlg, Invalid state of state machine of POU.....	192
3.5.364 F026007F, ML_SendJobTlg, Error during init of POU instance.....	192
3.5.365 F0260080, ML_RecvJobTlg, Invalid values of inputs of POU.....	192
3.5.366 F0260081, ML_RecvJobTlg, Set of command into queue failed.....	192
3.5.367 F0260082, ML_RecvJobTlg, Watch dog - time out.....	192
3.5.368 F026008E, ML_RecvJobTlg, Invalid state of state machine of POU.....	192
3.5.369 F026008F, ML_RecvJobTlg, Error during init of POU instance.....	192

Table of Contents

	Page
3.5.370 F0260090, ML_SendRecvJobAss, Invalid values of inputs of POU.....	192
3.5.371 F0260091, ML_SendRecvJobAss, Store of recieved job telegram failed.....	193
3.5.372 F0260092, ML_SendRecvJobAss, Watch dog - time out.....	193
3.5.373 F0260095, ML_SendRecvJobAss, Error communication socket (create).....	193
3.5.374 F0260096, ML_SendRecvJobAss, Error communication socket (close).....	193
3.5.375 F0260097, ML_SendRecvJobAss, Error communication socket (ioctl).....	193
3.5.376 F0260098, ML_SendRecvJobAss, Error communication socket (bind).....	193
3.5.377 F0260099, ML_SendRecvJobAss, Error ethernet buffer (recvfrom).....	193
3.5.378 F026009A, ML_SendRecvJobAss, Error ethernet buffer (sendto).....	193
3.5.379 F026009B, ML_SendRecvJobAss, Defrag error of send/ receive buffer.....	194
3.5.380 F026009C, ML_SendRecvJobAss, Error on communication sockets.....	194
3.5.381 F026009D, ML_SendRecvJobAss, Invalid state of I/O of POU.....	194
3.5.382 F026009E, ML_SendRecvJobAss, Invalid state of state machine of POU.....	194
3.5.383 F026009F, ML_SendRecvJobAss, Error during init of POU instance.....	194
3.5.384 F02600A0, ML_DebugJobConnect, Invalid values of inputs of POU.....	194
3.5.385 F02600A1, ML_DebugJobConnect, Set of command into queue failed.....	194
3.5.386 F02600A2, ML_DebugJobConnect, Invalid command / getting status.....	194
3.5.387 F02600A3, ML_DebugJobConnect, Invalid command / getting status.....	195
3.5.388 F02600A4, ML_DebugJobConnect, Watch dog - time out.....	195
3.5.389 F02600AE, ML_DebugJobConnect, Invalid state of state machine of POU.....	195
3.5.390 F02600AF, ML_DebugJobConnect, Error during init of POU instance.....	195
3.5.391 F0280001, Invalid number of CFL01.1 modules (-Q2, -R3).....	195
3.5.392 F0280002, Upload of firmware into des CFL01.1-Q2-FPGA failed.....	195
3.5.393 F0280003, Initialization of the CFL01.1-Q2 module failed.....	196
3.5.394 F0280004, Link ring broken.....	196
3.5.395 F0280005, Link ring: masterposition incorrect MDT.....	197
3.5.396 F0280006, Link ring: masterposition incorrect AT.....	197
3.5.397 F0280007, Link ring: variant cycle time detected.....	197
3.5.398 F0280010, Link axis not projectable, C2C is not configured yet.....	197
3.5.399 F0280011, C2C: Connection not applicable, as not configured.....	197
3.5.400 F0280012, C2C: Connection error.....	198
3.5.401 F0280020, Semaphore error while switching C2C phase.....	198
3.5.402 F0280021, Invalid commanded C2C phase.....	198
3.5.403 F0280022, Internal error due to the C2C service channel.....	198
3.5.404 F0280023, Incompatible C2C device found.....	198
3.5.405 F0280024, C2C ring not closed.....	199
3.5.406 F0280025, C2C: Configuration not consistent.....	199
3.5.407 F0280027, C2C: Error device not found.....	199
3.5.408 F0280029, C2C: Error switching phase 3.....	200
3.5.409 F0280030, C2C: Error command S-0-0127, P3 transition check.....	200
3.5.410 F0280031, C2C: Error switching phase 4.....	200
3.5.411 F0280034, Invalid configuration of C2C timing.....	200
3.5.412 F0280041, C2C: sercos cycle time not possible.....	200
3.5.413 F0280044, Link ring: invalid HW synchronization.....	201
3.5.414 F0280060, C2C master: hot plug slave w/o sercos III-interface (HP0).....	201
3.5.415 F0280061, C2C master: misconfigured hot plug slave (HP0).....	201

Table of Contents

	Page
3.5.416 F0280062, C2C master: error while scanning the hot plug slaves (HP1).....	202
3.5.417 F0280063, C2C master: HP1 parameters faultily receipted (HP1).....	202
3.5.418 F0280064, C2C master: error running the service channel (HP1).....	202
3.5.419 F0280065, C2C master: hot plug mechanism aborted.....	202
3.5.420 F0280066, C2C master: HotPlug not supported.....	203
3.5.421 F0280067, C2C master: invalid slave address detected (HP1).....	203
3.5.422 F0280068, Ring topology could not be established.....	203
3.5.423 F0280080, C2C slave: hot plug via C2C master impossible (HP0.1).....	204
3.5.424 F0280081, C2C slave: HP0 parameters defective/incomplete (HP0.2).....	204
3.5.425 F0280082, C2C slave: slave address missed in HP control word (HP0.3).....	204
3.5.426 F0280083, C2C slave: HP1 parameters defective/incomplete (HP01.1).....	205
3.5.427 F0280084, C2C slave: error within C2C service channel (HP1.2).....	205
3.5.428 F0280085, C2C slave: faulty scan algorithm within C2C master (HP1.2).....	205
3.5.429 F0280086, C2C slave: error running switch command S-0-0127/8 (HP2).....	206
3.5.430 F0280087, C2C slave: hot plug mechanism failed.....	206
3.5.431 F0280100, Lack of memory due to the C2C interface data.....	206
3.5.432 F0280101, Initialization of the C2C hardware failed.....	207
3.5.433 F0280103, Master axis not applicable, defective internal axis table.....	207
3.5.434 F0280104, Old master axis unerasable, defective internal axis table.....	207
3.5.435 F0280105, Setup of the P-/S-Count values via SVCH failed.....	208
3.5.436 F0280106, Enquiry of the P-/S-SynCnt values via SVCH failed.....	208
3.5.437 F0280107, Enquiry of the ring configuration ID via SVCH failed.....	208
3.5.438 F0280109, Generic (configuration) error due to the C2C interface.....	208
3.5.439 F0280161, Set point transfer error.....	209
3.5.440 F0290001, Transformation not valid.....	209
3.5.441 F0290400, General kinematics error.....	209
3.5.442 F0290401, Invalid control number.....	209
3.5.443 F0290402, Invalid kinematics number.....	209
3.5.444 F0290403, Invalid command type.....	209
3.5.445 F0290404, Command not supported by kinematics.....	210
3.5.446 F0290405, Command rejected while 'StandStill Incomplete'.....	210
3.5.447 F0290406, Command rejected while 'PM Program Stopping'.....	210
3.5.448 F0290407, Command rejected while 'StandStill Complete'.....	210
3.5.449 F0290408, Invalid command number.....	210
3.5.450 F0290409, Command not supported in this state.....	210
3.5.451 F0290410, Reset still 'ErrorStop'.....	210
3.5.452 F0290411, Command rejected while 'PM Program Running'.....	210
3.5.453 F0290412, Error while selecting RCL program.....	211
3.5.454 F0290413, Command rejected while 'Parameter Mode'.....	211
3.5.455 F0290414, Command rejected while 'ErrorStop'.....	211
3.5.456 F0290415, Command aborted.....	211
3.5.457 F0290416, Switching to 'StandStill' not possible.....	211
3.5.458 F0290417, RCL process does not exist.....	211
3.5.459 F0290501, Two PLC-MotionCommands per motion cycle not allowed.....	211
3.5.460 F0290502, Command rejected - buffer full.....	211
3.5.461 F0290503, Invalid motion command.....	211

Table of Contents

	Page
3.5.462 F0290505, Synchronisation to more than one belt not possible.....	211
3.5.463 F02C0066, Axis list in K-0-0008 not completed.....	212
3.5.464 F02C00B7, Reserved.....	212
3.5.465 F02C0173, Illegal jump instruction.....	212
3.5.466 F02C0177, Error in exclusive statement, EXCLUSIVE_END expected.....	212
3.5.467 F02C017B, Subprogram nesting depth exceeded.....	212
3.5.468 F02C017D, Illegal relational operator.....	212
3.5.469 F02C017F, Belt type expected.....	212
3.5.470 F02C0182, Jump statement not permitted.....	212
3.5.471 F02C0183, Circle with one axis not possible.....	212
3.5.472 F02C0202, Programname contains invalid characters.....	212
3.5.473 F02C0203, QLL-file not found.....	213
3.5.474 F02C0204, Error during compilation.....	213
3.5.475 F02C0205, SRAM semaphore defective.....	213
3.5.476 F02C033F, Illegal program name.....	213
3.5.477 F02C0340, Program name too long.....	213
3.5.478 F02C0342, Illegal file name extension.....	213
3.5.479 F02C0489, IOL-on: Time offset too long.....	214
3.5.480 F02C048A, IOL-off: Time offset too long.....	214
3.5.481 F02C048B, PPO: Time offset too long.....	214
3.5.482 F02C048C, IOL-on: Function in use.....	214
3.5.483 F02C048D, IOL-off: Function in use.....	214
3.5.484 F02C048E, PPO: Function in use.....	214
3.5.485 F02C0491, PPO: Velocity greater than max. velocity.....	214
3.5.486 F02C0895, Data transfer error.....	214
3.5.487 F02C0898, Data transfer error.....	214
3.5.488 F02C089C, Data transfer error.....	215
3.5.489 F02C089D, Data transfer error.....	215
3.5.490 F02C08A7, Data transfer error.....	215
3.5.491 F02C08BA, Data transfer error.....	215
3.5.492 F02C08D0, Data transfer error.....	215
3.5.493 F02C0E10, rFkt: invalid length.....	215
3.5.494 F02C0E11, rFkt: Client disconnected (1).....	215
3.5.495 F02C0E12, rFkt: malloc error.....	215
3.5.496 F02C0E13, rFkt: Client disconnected (2).....	215
3.5.497 F02C0E14, rFkt: wrong channel.....	215
3.5.498 F02C0E15, rFkt: READ error.....	216
3.5.499 F02C0E16, rFkt: WRITE error.....	216
3.5.500 F02C0E17, rFkt: CONNECT error.....	216
3.5.501 F02C0E44, Socket error PCL.....	216
3.5.502 F02C0E45, Unknown server PCL.....	216
3.5.503 F02C0E46, No connect PCL.....	216
3.5.504 F02C0E47, Socket error.....	216
3.5.505 F02C0E48, Bind error.....	216
3.5.506 F02C0E49, List error.....	216
3.5.507 F02C0E4A, Accept error.....	216

Table of Contents

	Page
3.5.508 F02C0E52, Seriell writing is not possible.....	217
3.5.509 F02C0ECE, Shutdown error.....	217
3.5.510 F02C0ECF, Shutdown error.....	217
3.5.511 F02C0F1E, End of file.....	217
3.5.512 F02C0F1F, File opened for write.....	217
3.5.513 F02C0F20, No compressing.....	217
3.5.514 F02C0F21, File does not exist.....	217
3.5.515 F02C0F22, Memory (user) overflow.....	217
3.5.516 F02C0F23, File too many opened.....	217
3.5.517 F02C0F24, File still opened.....	218
3.5.518 F02C0F25, File opened for write.....	218
3.5.519 F02C0F26, File already exists.....	218
3.5.520 F02C0F27, No reserved block empty.....	218
3.5.521 F02C0F28, File not found.....	218
3.5.522 F02C0F3B, Not enough heap.....	218
3.5.523 F02C0F3F, Read error PKT file.....	218
3.5.524 F02C0F40 up to F02C0F57, Access denied	218
3.5.525 F0308001, Over-temperature.....	218
3.5.526 F0308002, Power failure.....	219
3.5.527 F0310004, Basic internal error in the oscilloscope.....	219
3.5.528 F0310007, Starting the oscilloscope is not possible.....	219
3.5.529 F0310008, Error during trigger-check.....	219
3.5.530 F0310009, Error during data recording.....	219
3.5.531 F03500FA, RCL Compiler: Time constant too great.....	219
3.5.532 F03500FB, RCL Compiler: Variable longer than 12 characters.....	220
3.5.533 F03500FD, RCL Compiler: Unexpected end of line.....	220
3.5.534 F03500FF, RCL Compiler: Syntax error, number expected.....	220
3.5.535 F0350101, RCL Compiler: Colon expected.....	220
3.5.536 F0350102, RCL Compiler: Left squared bracket expected.....	220
3.5.537 F0350103, RCL Compiler: Right squared bracket expected.....	220
3.5.538 F0350104, RCL Compiler: END expected.....	220
3.5.539 F0350105, RCL Compiler: EXACT or CIRCA expected.....	220
3.5.540 F0350106, RCL Compiler: INTEGER constant expected.....	220
3.5.541 F0350107, RCL Compiler: Equal sign expected.....	220
3.5.542 F0350108, RCL Compiler: Left bracket expected.....	220
3.5.543 F0350109, RCL Compiler: Right bracket expected.....	220
3.5.544 F035010A, RCL Compiler: Smaller or greater expected.....	221
3.5.545 F035010B, RCL Compiler: End of line or file or colon expected.....	221
3.5.546 F035010C, RCL Compiler: Multiplication expected.....	221
3.5.547 F035010D, RCL Compiler: TO or VIA expected.....	221
3.5.548 F035010E, RCL Compiler: Variable expected.....	221
3.5.549 F035010F, RCL Compiler: Keyword PROGRAM expected.....	221
3.5.550 F0350110, RCL Compiler: FILE expected.....	221
3.5.551 F0350111, RCL Compiler: SUBROUTINE expected.....	221
3.5.552 F0350112, RCL Compiler: REPEAT_END expected.....	221
3.5.553 F0350113, RCL Compiler: Type not defined.....	221

Table of Contents

	Page
3.5.554 F0350114, RCL Compiler: Const., symbol or expres. as factor exp.....	221
3.5.555 F0350115, RCL Compiler: End of file expected.....	221
3.5.556 F0350116, RCL Compiler: Invalid symbol.....	222
3.5.557 F0350117, RCL Compiler: Instruction expected.....	222
3.5.558 F0350118, RCL Compiler: Output variable expected.....	222
3.5.559 F0350119, RCL Compiler: Output not permitted.....	222
3.5.560 F035011A, RCL Compiler: BINARY expected.....	222
3.5.561 F035011B, RCL Compiler: REAL expected.....	222
3.5.562 F035011C, RCL Compiler: Input variable expected.....	222
3.5.563 F035011D, RCL Compiler: Input not permitted.....	222
3.5.564 F035011E, RCL Compiler: Program and file name do not fit.....	222
3.5.565 F035011F, RCL Compiler: Invalid number of elements.....	222
3.5.566 F0350120, RCL Compiler: Array expected.....	222
3.5.567 F0350121, RCL Compiler: Function name expected.....	222
3.5.568 F0350122, RCL Compiler: INTEGER expected.....	223
3.5.569 F0350123, RCL Compiler: INTEGER too large.....	223
3.5.570 F0350124, RCL Compiler: Read access not permitted.....	223
3.5.571 F0350125, RCL Compiler: Label already defined.....	223
3.5.572 F0350126, RCL Compiler: Label expected.....	223
3.5.573 F0350127, RCL Compiler: Label not defined.....	223
3.5.574 F0350128, RCL Compiler: JC-Point expected.....	223
3.5.575 F0350129, RCL Compiler: @ - character not permitted.....	223
3.5.576 F035012A, RCL Compiler: @ - character expected.....	223
3.5.577 F035012B, RCL Compiler: Symbol already exists.....	223
3.5.578 F035012C, RCL Compiler: Label for structure element expected.....	223
3.5.579 F035012D, RCL Compiler: Name not defined.....	223
3.5.580 F035012E, RCL Compiler: Point or point variable expected.....	224
3.5.581 F035012F, RCL Compiler: Pair of points expected.....	224
3.5.582 F0350130, RCL Compiler: Jump back only permitted in subroutine.....	224
3.5.583 F0350131, RCL Compiler: Write access not permitted.....	224
3.5.584 F0350132, RCL Compiler: Jump not permitted.....	224
3.5.585 F0350134, RCL Compiler: Type conflict.....	224
3.5.586 F0350135, RCL Compiler: Lower limit exceeds upper limit.....	224
3.5.587 F0350136, RCL Compiler: Type incorrect.....	224
3.5.588 F0350137, RCL Compiler: Invalid axis number.....	224
3.5.589 F0350138, RCL Compiler: Subroutine name expected.....	224
3.5.590 F0350139, RCL Compiler: Variable expected.....	224
3.5.591 F035013A, RCL Compiler: Record variable expected.....	224
3.5.592 F035013B, RCL Compiler: Point expected.....	225
3.5.593 F035013C, RCL Compiler: Invalid extension.....	225
3.5.594 F035013D, RCL Compiler: Too many arguments.....	225
3.5.595 F035013E, RCL Compiler: Too less arguments.....	225
3.5.596 F035013F, RCL Compiler: Not implemented.....	225
3.5.597 F0350140, RCL Compiler: Compiler error.....	225
3.5.598 F0350142, RCL Compiler: QLL file not present.....	225
3.5.599 F0350143, RCL Compiler: Error, file not found.....	225

Table of Contents

	Page
3.5.600 F0350144, RCL Compiler: File only accepted in main program.....	225
3.5.601 F0350146, RCL Compiler: Error during compilation.....	225
3.5.602 F0350147, RCL Compiler: Out of memory.....	225
3.5.603 F0350148, RCL Compiler: IRD file error.....	225
3.5.604 F0350149, RCL Compiler: Symbol file error.....	226
3.5.605 F035014A, RCL Compiler: Point file error.....	226
3.5.606 F035014B, RCL Compiler: Error in error file.....	226
3.5.607 F035014D, RCL Compiler: Keyword DEF incorrect.....	226
3.5.608 F035014E, RCL Compiler: Include file not present.....	226
3.5.609 F0350150, RCL Compiler: Axis name incorrect.....	226
3.5.610 F0350151, RCL Compiler: Index error.....	226
3.5.611 F0350152, RCL Compiler: invalid program parameter.....	226
3.5.612 F0350153, RCL Compiler: Keyword instead of label.....	226
3.5.613 F0350155, RCL Compiler: Comma expected.....	226
3.5.614 F0350156, RCL Compiler: SUB_END expected.....	226
3.5.615 F0350157, RCL Compiler: PROGRAM_END expected.....	226
3.5.616 F0350158, RCL Compiler: Too many axes.....	227
3.5.617 F035015A, RCL Compiler: Number exists twice.....	227
3.5.618 F035015B, RCL Compiler: Cannot add point on kinematics.....	227
3.5.619 F035015C, RCL Compiler: Kinematics name expected.....	227
3.5.620 F035015D, RCL Compiler: Cannot add belt on kinematics.....	227
3.5.621 F035015E, RCL Compiler: External program expected.....	227
3.5.622 F035015F, RCL Compiler: INPUT/OUTPUT only permitted in decl.....	227
3.5.623 F0350160, RCL Compiler: Address for INPUT/OUTPUT expected.....	227
3.5.624 F0350161, RCL Compiler: Out of array.....	227
3.5.625 F0350162, RCL Compiler: Wrong type in array.....	227
3.5.626 F0350163, RCL Compiler: Input/Output.....	227
3.5.627 F0350164, RCL Compiler: Invalid channel address.....	227
3.5.628 F0350165, RCL Compiler: Coordinate expected.....	228
3.5.629 F0350166, RCL Compiler: Invalid kinematics instruction.....	228
3.5.630 F0350167, RCL Compiler: BEGIN expected.....	228
3.5.631 F0350168, RCL Compiler: Keyword conflict.....	228
3.5.632 F035016F, RCL Compiler: PKT file read / write error.....	228
3.5.633 F0350179, RCL Compiler: Wrong compiler version.....	228
3.5.634 F035017C, RCL Compiler: Maximum table entry exceeded.....	228
3.5.635 F035017E, RCL Compiler: Maximum error count reached.....	228
3.5.636 F0350185, RCL Compiler: Double INCLUDE - statement.....	228
3.5.637 F0350186, RCL Compiler: EXTERN only permitted in main program.....	228
3.5.638 F0350188, RCL Compiler: Only one EXPORT program permitted.....	228
3.5.639 F0350189, RCL Compiler: Pointvariable not found.....	228
3.5.640 F035018A, RCL Compiler: Different CID.....	229
3.5.641 F035018C, RCL Compiler: No EXPORT variable found.....	229
3.5.642 F035018D, RCL Compiler: Different axis count of the kinematics.....	229
3.5.643 F035018E, RCL Compiler: Not defined kinematics.....	229
3.5.644 F03501AC, RCL Compiler: Identifier expected.....	229
3.5.645 F03501AD, RCL Compiler: Type expected.....	229

Table of Contents

	Page
3.5.646 F03501AE, RCL Compiler: RECORD expected.....	229
3.5.647 F03501AF, RCL Compiler: RECORD_END expected.....	229
3.5.648 F03501B0, RCL Compiler: IF expected.....	229
3.5.649 F0350200, RCL Compiler: File name too long.....	229
3.5.650 F0350212, RCL Compiler: Type name expected.....	229
3.5.651 F0350213, RCL Compiler: Identifier already defined.....	229
3.5.652 F0350214, RCL Compiler: Keyword here not permitted.....	230
3.5.653 F0350216, RCL Compiler: Recursive data types not permitted.....	230
3.5.654 F0350217, RCL Compiler: Write/read from this data type not possible.....	230
3.5.655 F0350218, RCL Compiler: Compare operator expected.....	230
3.5.656 F0350219, RCL Compiler: Illegal INPUT type.....	230
3.5.657 F035021A, RCL Compiler: Illegal OUTPUT type.....	230
3.5.658 F035021B, RCL Compiler: Illegal CASE konstant.....	230
3.5.659 F035021E, RCL Compiler: Illegal INPUT ARRAY.....	230
3.5.660 F035021F, RCL Compiler: Illegal OUTPUT ARRAY.....	230
3.5.661 F0350220, RCL Compiler: Wrong type during parameter transfer.....	230
3.5.662 F0350221, RCL Compiler: File only accepted in main program.....	230
3.5.663 F0350222, RCL Compiler: INPUT/OUTPUT only permitted in main program.....	230
3.5.664 F0350223, RCL Compiler: Data type FILE in RECORD not permitted.....	231
3.5.665 F0350224, RCL Compiler: Kinematics konflikt.....	231
3.5.666 F0350227, RCL Compiler: Wrong format for export file.....	231
3.5.667 F0350228, RCL Compiler: No values assumed.....	231
3.5.668 F035022B, RCL Compiler: Equal or greater than expected.....	231
3.5.669 F035022C, RCL Compiler: Constant expected.....	231
3.5.670 F035022D, RCL Compiler: IF_END expected.....	231
3.5.671 F035022E, RCL Compiler: Two points expected.....	231
3.5.672 F035022F, RCL Compiler: LABEL incompatible.....	231
3.5.673 F0350230, RCL Compiler: Wrong data type in CASE structure.....	231
3.5.674 F0350232, RCL Compiler: Multiple LABEL definition.....	231
3.5.675 F0350233, RCL Compiler: CASE table overflow.....	231
3.5.676 F0350234, RCL Compiler: Division by zero.....	232
3.5.677 F0350235, RCL Compiler: Positive number expected.....	232
3.5.678 F035023A, RCL Compiler: Translation aborted.....	232
3.5.679 F035023B, RCL Compiler: Error during memory approval.....	232
3.5.680 F035023C, RCL Compiler: End of PKT-file reached.....	232
3.5.681 F035023D, RCL Compiler: Error, cannot create point in PKT-File.....	232
3.5.682 F035023F, RCL Compiler: Keyword T expected.....	232
3.5.683 F0350242, RCL Compiler: Variable or expression expected.....	232
3.5.684 F0350243, RCL Compiler: Program name expected.....	232
3.5.685 F0350244, RCL Compiler: Program start expected.....	232
3.5.686 F0350245, RCL Compiler: Illegal program name.....	232
3.5.687 F0350247, RCL Compiler: Alignment unequal four.....	232
3.5.688 F0350249, RCL Compiler: Illegal kinematics name.....	233
3.5.689 F0350484, RCL Compiler: Illegal kinematics number.....	233
3.5.690 F0360000, MLPI: Success.....	233
3.5.691 F0360001, MLPI: Common error.....	233

Table of Contents

	Page
3.5.692 F0360002, MLPI: Not supported.....	233
3.5.693 F0360003, MLPI: Invalid argument.....	233
3.5.694 F0360004, MLPI: Out of memory.....	233
3.5.695 F0360005, MLPI: Timeout.....	234
3.5.696 F0360006, MLPI: Server exception.....	234
3.5.697 F0360007, MLPI: Connection failed.....	234
3.5.698 F0360008, MLPI: Create error.....	234
3.5.699 F0360009, MLPI: System error.....	234
3.5.700 F036000A, MLPI: Buffer too short.....	234
3.5.701 F036000B, MLPI: Invalid signature.....	235
3.5.702 F036000C, MLPI: Start error.....	235
3.5.703 F036000D, MLPI: Watchdog warning.....	235
3.5.704 F0370010, TaskViewer record already started.....	235
3.5.705 F0370011, TaskViewer record not started.....	235
3.5.706 F0370012, Create of TaskViewer file failed.....	235
3.5.707 F0370013, Start of TaskViewer record failed.....	236
3.5.708 F0370014, TaskViewer record failed.....	236
3.5.709 F0370015, Setting of TaskViewer buffer not possible.....	236
3.5.710 F039****, PLC Error Messages from the 3S Kernel	236
3.5.711 F03A2002, Inline bus errors.....	236
3.5.712 F03A****, PLC Error Messages from Company Components.....	236
3.6 F1 Errors, Axis Group Error.....	236
3.6.1 F1 Errors, Error Reaction.....	236
3.6.2 F10B0001, External synchron clock is missing.....	236
3.6.3 F12C0041, Protocol length file I/O too long.....	237
3.6.4 F12C0042, Unknown function data I/O.....	237
3.6.5 F12C0062, Passing factor (R_PTP) out of range.....	237
3.6.6 F12C006C, Error during RoCo system startup no. 3.....	237
3.6.7 F12C0074, Positioning limits of an axis was exceeded.....	237
3.6.8 F12C007A, Tensor-Interpolation: Angles not in main area.....	237
3.6.9 F12C007B, Tensor-Interpolation: Angles not calculably.....	238
3.6.10 F12C007E, WC move not possible without reference points.....	238
3.6.11 F12C007F, No feed-allow-signal within belt synchronisation.....	238
3.6.12 F12C0083, Error during RoCo system startup no. 5.....	238
3.6.13 F12C0084, Error during RoCo system startup no. 7.....	238
3.6.14 F12C0085, Error during RoCo system startup no. 9.....	238
3.6.15 F12C0086, Error during RoCo system startup no. 11.....	238
3.6.16 F12C0087, Error during RoCo system startup no. 13.....	238
3.6.17 F12C0088, Error during RoCo system startup no. 15.....	238
3.6.18 F12C0089, Axis list is not correct.....	239
3.6.19 F12C008A, Transformation parameter does not fit to robot type.....	239
3.6.20 F12C008B, Transformation error: Singular system of equation.....	239
3.6.21 F12C008C, MODE does not turn to -1.....	239
3.6.22 F12C0099, Beltsync: Endpoint not reachable.....	239
3.6.23 F12C009A, Beltsync: Limit of beltcounter (SPC_FCT 53) exceeded.....	240
3.6.24 F12C009B, Transformation length is 0.....	240

Table of Contents

	Page
3.6.25 F12C00A3, Interpolation type not specified.....	240
3.6.26 F12C00A6, Watchdog expired.....	240
3.6.27 F12C00AA, Beltsync: Kinematics in singular position.....	240
3.6.28 F12C00AB, Kinematics in singular position.....	240
3.6.29 F12C00AD, Travel range limit JC reached.....	240
3.6.30 F12C00AE, Beltsync: Travel block activated too late.....	241
3.6.31 F12C00AF, Resulting axis velocity limit exceeded.....	241
3.6.32 F12C00B0, Ambiguity with beltsynchronisation.....	241
3.6.33 F12C00B1, Interpolation in wrong direction.....	241
3.6.34 F12C00B2, AUTO/MANUAL change not allowed.....	241
3.6.35 F12C00B4, Beltsync: 1. BS-Travel block activated too late.....	241
3.6.36 F12C00B5, RoCo Watchdog 2 - Error.....	241
3.6.37 F12C00B6, Beltsync: Block end reached too late.....	242
3.6.38 F12C0100, RoCo watchdog error.....	242
3.6.39 F12C0316, File open for read.....	242
3.6.40 F12C0317, File open for write.....	242
3.6.41 F12C031A, Block not initialized.....	242
3.6.42 F12C031D, Block not connected.....	242
3.6.43 F12C0406, Invalid SPC_FCT.....	242
3.6.44 F12C0407, SPC_FCT 53 was called with wrong parameters.....	242
3.6.45 F12C0408, Error at the last beltsynchronous movement block.....	243
3.6.46 F12C0410, Acceleration not allowed.....	243
3.6.47 F12C041A, Process error.....	244
3.6.48 F12C041B, Process already exists.....	244
3.6.49 F12C041C, Invalid travel time.....	244
3.6.50 F12C041D, Velocity not allowed.....	244
3.6.51 F12C041E, Impermissible jerk.....	245
3.6.52 F12C041F, User memory overflow.....	245
3.6.53 F12C0420, WRITE_BEGIN expected.....	245
3.6.54 F12C0421, File repeated opened.....	245
3.6.55 F12C0422, File already opened.....	245
3.6.56 F12C0423, Invalid file name.....	245
3.6.57 F12C0424, End of file reached while READ.....	246
3.6.58 F12C0426, Missing DAT-File.....	246
3.6.59 F12C0427, Read access to a file which is opened for write.....	246
3.6.60 F12C0428, READ_BEGIN expected.....	246
3.6.61 F12C042A, Missing WCSYST/TOOLS.DAT.....	246
3.6.62 F12C042B, WCSYST/TOOLS name missing.....	246
3.6.63 F12C042D, Wrong parameters for external subroutine.....	246
3.6.64 F12C042E, Wrong number of parameters for external subroutine.....	247
3.6.65 F12C042F, Wrong type of parameters for external subroutine.....	247
3.6.66 F12C0430, Wrong declaration of parameters for ext. subroutine.....	247
3.6.67 F12C0431, Program includes parameters.....	247
3.6.68 F12C0432, INTEGER overflow.....	247
3.6.69 F12C0433, Workspace violation.....	247
3.6.70 F12C0435, Illegal parameter for external subroutine.....	247

Table of Contents

	Page
3.6.71 F12C0436, Format error in DAT-file.....	247
3.6.72 F12C0437, SUB-Process stops its own mainprocess.....	248
3.6.73 F12C0438, Division by zero in RCL program.....	248
3.6.74 F12C0439, Square root with negative argument in RCL program.....	248
3.6.75 F12C043A, PTP within belt synchronous movement.....	248
3.6.76 F12C043C, Point not reachable.....	248
3.6.77 F12C043D, Wrong PKT file.....	248
3.6.78 F12C043F, Invalid output.....	248
3.6.79 F12C0440, Invalid input.....	248
3.6.80 F12C0441, Reserved.....	248
3.6.81 F12C0442, Transformation of this point is not possible.....	249
3.6.82 F12C0444, File does not exist.....	249
3.6.83 F12C0445, Negative delaytime.....	249
3.6.84 F12C0447, Error in IRD program.....	249
3.6.85 F12C0448, IRD stack overflow.....	249
3.6.86 F12C0449, IRD stack underflow.....	249
3.6.87 F12C044A, Invalid number of axes.....	249
3.6.88 F12C044B, Array index out of range.....	249
3.6.89 F12C044C, Program name too long.....	249
3.6.90 F12C044D, IRD option not activ.....	250
3.6.91 F12C044E, Missing PKT file.....	250
3.6.92 F12C044F, Point is not defined.....	250
3.6.93 F12C0451, No points in PKT file.....	250
3.6.94 F12C0453, Braekpoint not allowed because of belt synchr.....	250
3.6.95 F12C0454, Reserved.....	250
3.6.96 F12C0455, Beltsynchronisation can not be activated.....	250
3.6.97 F12C0457, Invalid float value.....	250
3.6.98 F12C0458, File sequentialisation not possible.....	250
3.6.99 F12C045A, Wrong version of the RCL compiler.....	251
3.6.100 F12C045C, Starting point too near the intermediate point.....	251
3.6.101 F12C045D, Starting point too near the endpoint.....	251
3.6.102 F12C045F, Only positive velocity allowed.....	251
3.6.103 F12C0460, No belt option.....	251
3.6.104 F12C0462, Intermediate poin too near the endpoint.....	251
3.6.105 F12C0463, Start, intermediate and end point on a straight line.....	251
3.6.106 F12C0464, Start, intermediate and end point too close.....	251
3.6.107 F12C0466, Invalid kinematics number.....	251
3.6.108 F12C0467, GLOBAL-File does not exist.....	252
3.6.109 F12C0468, GLOBAL COMMON ID.....	252
3.6.110 F12C0469, Two GLOBAL-Files.....	252
3.6.111 F12C046A, BNR file does not exist.....	252
3.6.112 F12C046C, Option GLOBAL-File is not active.....	252
3.6.113 F12C046D, MOVE FILE: Wrong version.....	252
3.6.114 F12C046E, MOVE FILE: Wrong number of axes.....	252
3.6.115 F12C046F, MOVE FILE: Reading pointer.....	252
3.6.116 F12C0470, MOVE FILE: Time base.....	253

Table of Contents

	Page
3.6.117 F12C0471, MOVE FILE: IP-LR base.....	253
3.6.118 F12C0472, MOVE FILE: Format fault.....	253
3.6.119 F12C0473, MOVE FILE: MODULO_FLAG not occupied.....	253
3.6.120 F12C0474, Reserved.....	253
3.6.121 F12C0475, No positioning axes defined.....	253
3.6.122 F12C0476, Reserved.....	253
3.6.123 F12C0477, Invalid axes configuration.....	253
3.6.124 F12C0478, Raised/extended arm.....	254
3.6.125 F12C0479, WC zero position is singular.....	254
3.6.126 F12C047A, Too close to stand.....	254
3.6.127 F12C047C, Invalid TOOL value.....	254
3.6.128 F12C047D, Wrong belt direction programed.....	254
3.6.129 F12C047E, Invalid kind of belt/tolerance of belt.....	254
3.6.130 F12C047F, Belt distance is zero.....	254
3.6.131 F12C0480, Invalid point.....	254
3.6.132 F12C0481, Invalid measuring system.....	255
3.6.133 F12C0482, Invalid belt number.....	255
3.6.134 F12C0483, In WC not allowed.....	255
3.6.135 F12C0484, Invalid kinematics number.....	255
3.6.136 F12C0485, PPO/IOL: Invalid function number.....	255
3.6.137 F12C0486, SPC_FCT 1, Invalid kinematics number.....	255
3.6.138 F12C0487, PPO/IOL: Invalid coordinate.....	255
3.6.139 F12C0488, PPO: Invalid parameter value.....	255
3.6.140 F12C048F, PPO/IOL: Invalid function number.....	256
3.6.141 F12C0490, Function number.....	256
3.6.142 F12C0492, Invalid SPS process number.....	256
3.6.143 F12C0493, Invalid time value.....	256
3.6.144 F12C0494, Min. value greater than max. value.....	256
3.6.145 F12C0495, Error by exception process start.....	256
3.6.146 F12C0497, Workspace number.....	257
3.6.147 F12C0498, Transformation in PLC has not been registered.....	257
3.6.148 F12C0499, User defined transformation error in PLC.....	257
3.6.149 F12C049A, Internal error due to transformation in PLC.....	257
3.6.150 F12C0600, Invalid operation at PLC function call.....	257
3.6.151 F12C0601, Denormalized operand at PLC function call.....	257
3.6.152 F12C0602, Zero division at PLC function call.....	257
3.6.153 F12C0603, Overflow at PLC function call.....	257
3.6.154 F12C0604, Underflow at PLC function call.....	258
3.6.155 F12C0605, Precision error at PLC function call.....	258
3.6.156 F12C0606, NAN at PLC function call.....	258
3.6.157 F12C0822, Axis not referenced while jogging.....	258
3.6.158 F12C0876, Transformation mathematical undefined.....	258
3.6.159 F12C0877, Hand axis traversing range exceeded.....	258
3.6.160 F12C0878, Orientation axis traversing range exceeded.....	258
3.6.161 F12C0879, Mathematical workspace exceeded.....	258
3.6.162 F12C087A, Singularity of kinematics.....	258

Table of Contents

	Page
3.6.163 F12C087B, Mathematical workspace exceeded.....	259
3.6.164 F12C087C, Iteration divergent.....	259
3.6.165 F12C087D, COS singular.....	259
3.6.166 F12C0881, Illegal 'Drives ON'.....	259
3.6.167 F12C0883, Kinematics axis lost power.....	259
3.6.168 F12C0885, Workspace out of range.....	259
3.6.169 F12C08C7, Switch to manual operation not permitted.....	259
3.6.170 F12C0EB4, Memory dump error.....	259
3.6.171 F12C0EB5, Memory dump error.....	259
3.6.172 F12C0EB6, Memory dump error.....	260
3.6.173 F12C0EB7, Memory dump error.....	260
3.6.174 F12C0EB8, Memory dump error.....	260
3.6.175 F12C0EB9, Memory dump error.....	260
3.6.176 F1350C12, Negative time calculated in movement preparation.....	260
3.7 F2 Errors, Axis Errors.....	260
3.7.1 F2 Errors, Error Reaction.....	260
3.7.2 F200****, Drive Error with Error Number F****	260
3.7.3 F20B0005, Drive error.....	260
3.7.4 F20BE001, M_Busy-Bit not set.....	261
3.7.5 F20BE002, SVC: Protocol error.....	261
3.7.6 F20BE003, SVC: Handshake Timeout.....	261
3.7.7 F20BE004, SVC: Busy Timeout.....	261
3.7.8 F20BE005, SVC: Internal error.....	261
3.7.9 F20BE006, SVC in use.....	261
3.7.10 F20BE007, SVC: Request canceled.....	262
3.7.11 F20BE008, SVC internal request pending.....	262
3.7.12 F20BE009, SVC: Error message without SVC errorcode.....	262
3.7.13 F20D1015, Error while closing cyclic channel.....	262
3.7.14 F20D1025, Error while closing cyclic channel.....	262
3.7.15 F20D1029, Error opening cyclic channel.....	262
3.7.16 F20D102B, Error opening cyclic channel (READ-ACCESS).....	263
3.7.17 F20D102C, Error reading access (DirectReadReal).....	263
3.7.18 F20D102D, Error reading access (DirectReadWord).....	263
3.7.19 F20D102E, Error reading access (DirectReadDword).....	263
3.7.20 F20D1034, Error write access (DirectWriteWord).....	263
3.7.21 F20D1036, Axis has not been found (ML_AXISDATA).....	263
3.7.22 F20D1037, Invalid write/read access to ML_AXISDATA.....	263
3.7.23 F2110002, Axis is not homed.....	264
3.7.24 F2110003, Drive of axis does not exist.....	264
3.7.25 F2110004, Synchronization A to S/P-Parameter failed (A-0-0014).....	264
3.7.26 F2110005, Loss of encoder axis reference.....	264
3.7.27 F2110006, Invalid axis configuration.....	265
3.7.28 F2110007, Power lost on axis.....	265
3.7.29 F2110029, Positive travel limit exceeded.....	265
3.7.30 F2110030, Negative travel limit exceeded.....	266
3.7.31 F2110100, Control axis in error.....	266

Table of Contents

	Page
3.7.32 F2112053, Target position out of travel range error.....	266
3.7.33 F2116029, Positive travel limit exceeded.....	267
3.7.34 F2116030, Negative travel limit exceeded.....	267
3.7.35 F2119001, RTOS error, illegal master axis.....	267
3.7.36 F2220231, Invalid master axis data.....	267
3.7.37 F2220356, Invalid filter time const., additive master position.....	268
3.7.38 F2220357, Invalid filter time const., angle offset begin of profile.....	268
3.7.39 F2220358, Invalid filter time const., additive slave position.....	268
3.7.40 F2220610, Invalid master axis.....	268
3.7.41 F2229200, General drive error.....	269
3.7.42 F2229203, Invalid command type.....	269
3.7.43 F2229204, Command not supported by axis.....	269
3.7.44 F2229205, Command rejected, no power.....	269
3.7.45 F2229206, Command rejected while 'Stopping'.....	269
3.7.46 F2229207, Command rejected while 'Homing'.....	270
3.7.47 F2229208, Invalid command number.....	270
3.7.48 F2229210, Reset still 'ErrorStop'.....	270
3.7.49 F2229211, Command rejected while 'Discrete Motion'.....	270
3.7.50 F2229212, Command rejected while 'Continuous Motion'.....	271
3.7.51 F2229213, Command rejected while 'Synchronized Motion'.....	271
3.7.52 F2229214, Command rejected while 'ErrorStop'.....	271
3.7.53 F2229216, No power available.....	271
3.7.54 F2229217, Command rejected while 'StandStill' and 'PowerOn'.....	272
3.7.55 F2229218, Command rejected while 'StandStill'.....	272
3.7.56 F2229223, Velocity below minimum.....	272
3.7.57 F2229224, Velocity above maximum.....	272
3.7.58 F2229225, Acceleration below minimum.....	272
3.7.59 F2229226, Acceleration above maximum.....	273
3.7.60 F2229227, Deceleration below minimum.....	273
3.7.61 F2229228, Deceleration above maximum.....	273
3.7.62 F2229229, Jerk below minimum.....	273
3.7.63 F2229230, Jerk above maximum.....	274
3.7.64 F2229231, Invalid direction.....	274
3.7.65 F2229232, Invalid master control number.....	274
3.7.66 F2229233, Invalid master axis number.....	274
3.7.67 F2229234, Invalid CamTable ID.....	274
3.7.68 F2229235, Error in MotionProfile.....	275
3.7.69 F2229263, RatioNumerator below minimum.....	276
3.7.70 F2229264, RatioNumerator above maximum.....	276
3.7.71 F2229265, RatioDenominator below minimum.....	276
3.7.72 F2229266, RatioDenominator above maximum.....	277
3.7.73 F2229267, MasterFineAdjust below minimum.....	277
3.7.74 F2229268, MasterFineAdjust above maximum.....	277
3.7.75 F2229269, Invalid SyncMode.....	277
3.7.76 F2229270, Invalid StartMode.....	278
3.7.77 F2229271, Cam distance below minimum value.....	278

Table of Contents

	Page
3.7.78 F2229272, Cam distance above maximum value.....	278
3.7.79 F2229273, Command rejected while 'Parameter Mode'.....	278
3.7.80 F2229274, Axis not referenced.....	278
3.7.81 F2229275, Command aborted.....	279
3.7.82 F2229276, Control error.....	279
3.7.83 F2229277, Direct master axis change.....	279
3.7.84 F2229278, Disabled axis.....	279
3.7.85 F2229279, Command 'parking axis' active.....	279
3.7.86 F2229280, Command rejected while 'Coordinated Motion'.....	280
3.7.87 F2229281, Invalid float data.....	280
3.7.88 F2229282, MotionProfile, SetSelection below minimum value.....	280
3.7.89 F2229283, MotionProfile, SetSelection above maximum value.....	280
3.7.90 F2229284, Cam table is write-protected.....	280
3.7.91 F2229285, CAM table, usage counter out of range.....	280
3.7.92 F2229286, Choice relative positioning above max. value.....	281
3.7.93 F2229287, Can not assign axis to kinematics.....	281
3.7.94 F2229296, Absolute entry point in FlexProfile not found.....	281
3.7.95 F2229297, Absolute entry in FlexProfile not possible.....	281
3.7.96 F2229298, Master velocity of FlexProfile is negative.....	282
3.7.97 F2229300, Invalid command channel.....	282
3.7.98 F2229301, Command rejected while 'Controlled Motion'.....	282
3.7.99 F2229310, Error in calculation of FlexProfile step.....	282
3.7.100 F2229311, FlexProfile: Invalid switching position.....	282
3.7.101 F2229312, FlexProfile: Invalid FlexProfile startmode.....	282
3.7.102 F2229313, FlexProfile: Invalid FlexProfile slave axis offset.....	283
3.7.103 F2229314, Sum of dist. not 0 or mod. value, cyclic exec. not pos.....	283
3.7.104 F2229315, Invalid FlexProfile: Execution not possible.....	283
3.7.105 F2229335, FlexProfile: Set is write-protected.....	283
3.7.106 F2229336, FlexProfile: Invalid step number.....	283
3.7.107 F2229337, FlexProfile: Set number out of range.....	283
3.7.108 F2229338, ChangeFlexProfile: Invalid nominal master velocity.....	284
3.7.109 F2229339, ChangeFlexProfile: invalid operation mode.....	284
3.7.110 F2229341, FlexEvent: Set is write-protected.....	284
3.7.111 F2229342, FlexEvent: Set number out of range.....	284
3.7.112 F2229347, FlexProfile: Invalid. Single execution not possible.....	284
3.7.113 F2229348, FlexProfile: Invalid. Cyclic execution not possible.....	284
3.7.114 F2229351, Synchronisation velocity below minimum.....	285
3.7.115 F2229352, Synchronisation velocity above maximum.....	285
3.7.116 F2229353, Synchronisation acceleration below minimum.....	285
3.7.117 F2229354, Synchronisation acceleration above maximum.....	286
3.7.118 F2229359, FlexProfile: Invalid master axis offset.....	286
3.7.119 F2229360, Command rejected while 'Controlled Motion'.....	286
3.7.120 F2229361, Command not supported by axis (Configuration).....	286
3.7.121 F2229362, Command not supported by axis (Functional Package).....	287
3.7.122 F2229363, MotionProfile invalid.....	287
3.7.123 F2299400, General kinematics error.....	287

Table of Contents

	Page
3.7.124 F2299401, Invalid control number.....	287
3.7.125 F2299402, Invalid kinematics number.....	287
3.7.126 F2299403, Invalid command type.....	287
3.7.127 F2299404, Command not supported by kinematics.....	287
3.7.128 F2299405, Command rejected while 'StandStill Incomplete'.....	287
3.7.129 F2299406, Command rejected while 'Program Stopping'.....	288
3.7.130 F2299407, Command rejected while 'StandStill Complete'.....	288
3.7.131 F2299408, Invalid command number.....	288
3.7.132 F2299409, Command not supported in this state.....	288
3.7.133 F2299410, Reset still 'ErrorStop'.....	288
3.7.134 F2299411, Command rejected while 'Program Running'.....	288
3.7.135 F2299412, Error while selecting RCL program.....	288
3.7.136 F2299413, Command rejected while 'Parameter Mode'.....	288
3.7.137 F2299414, Command rejected while 'ErrorStop'.....	288
3.7.138 F2299415, Command aborted.....	289
3.7.139 F2299416, Switching to 'StandStill' not possible.....	289
3.7.140 F2299417, RCL process does not exist.....	289
3.7.141 F2299501, Two PLC-MotionCommands per motion cycle not allowed.....	289
3.7.142 F2299502, Command rejected - buffer full.....	289
3.7.143 F2299503, Invalid motion command.....	289
3.7.144 F2299505, Synchronisation to more than one belt not possible.....	289
3.7.145 F22B0003, Kinematics does not exist.....	289
3.7.146 F22B0004, Axis not part of kinematics.....	290
3.7.147 F22B0005, Axis not existing.....	290
3.7.148 F22B0010, Error while internal converting RoCo Parameter.....	290
3.7.149 F22B0011, Error while int. conv. RoCo Parameter in conv. phase 0.....	290
3.7.150 F22B0012, Error while int. conv. RoCo Parameter in conv. phase 1.....	290
3.7.151 F22B0013, Error while int. conv. RoCo Parameter in conv. phase 2.....	290
3.7.152 F22B0014, Error while int. conv. RoCo Parameter in conv. phase 3.....	290
3.7.153 F22B0015, Error while int. conv. RoCo Parameter in conv. phase 4.....	291
3.7.154 F22B0016, Error while int. conv. RoCo Parameter in conv. phase 5.....	291
3.7.155 F22E0000, Drive error (generic axis).....	291
3.7.156 F2350066, Axis list in K-0-0008 not completed.....	291
3.7.157 F2350071, Gantry-Error: Maximum lag exceeded.....	291
3.8 F5 Errors, Control Errors.....	291
3.8.1 F5 Errors, Error Reaction.....	291
3.8.2 F50B0002, sercos communication interrupted.....	291
3.8.3 F50B0010, Hardware failure.....	292
3.8.4 F50B0011, sercos device not compatible.....	292
3.8.5 F50D2000, Forced stop activated.....	292
3.8.6 F5180001, Invalid master axes combination.....	292
3.8.7 F5180005, Motion kernel exceeded control cycle time.....	292
3.8.8 F5180006, Calculation of actual values exceeded cycle time.....	293
3.8.9 F5300001, Over-temperature.....	293
3.8.10 F5300002, Power failure.....	294
3.8.11 F5300100, RTOS error on PLS FM.....	294

Table of Contents

	Page
3.8.12 F536000E, MLPI: Watchdog error.....	294
3.9 F8 Errors, Fatal Control Error.....	294
3.9.1 F8 Errors, Error Reaction.....	294
3.9.2 F80B0004, Double AT missing.....	294
3.9.3 F80B0015, RTOS error (Real Time Operating System).....	295
3.9.4 F80B0016, AT-Data not valid.....	295
3.9.5 F80B0017, Consumer connection failure.....	295
3.9.6 F80B0018, Producer Connection failure.....	296
3.9.7 F80B0019, Consumer connection timeout.....	296
3.9.8 F80B0162, Internal control error.....	296
3.9.9 F80B0163, Internal control error.....	296
3.9.10 F8200023, Critical temperatur reached, processor will stop.....	296
3.10 F9 Errors, Fatal System Error.....	297
3.10.1 F9 Errors, Error Reaction.....	297
3.10.2 F9010001, Default object on wrong address.....	297
3.10.3 F9010002, Memory allocation error, no memory available.....	297
3.10.4 F9010003, Invalid function pointer.....	297
3.10.5 F90B0012, sercos interface watch dog occured.....	298
3.10.6 F90B0020 up to F90B0028, RTOS Error (Real Time Operating System)	298
3.10.7 F90B0029, DRI, upload of firmware into des CFL01.1-Q2-FPGA failed.....	298
3.10.8 F90B0030 up to F90B0124, RTOS Error (Real Time Operating System)	298
3.10.9 F90D1021, Error ReadParameter, no memory available.....	298
3.10.10 F90D1023, Error WriteParameter.....	298
3.10.11 F90D1024, Error WriteParameter, no memory available.....	298
3.10.12 F90D1032, No access to axes (1).....	299
3.10.13 F90D1033, No access to axes (2).....	299
3.10.14 F90D1038, Error getting MessageQueue.....	299
3.10.15 F90D1039, Thread could not be started.....	299
3.10.16 F90D103A, Left endless While-Loop.....	299
3.10.17 F90D1204, Error, no memory available.....	299
3.10.18 F90D1209, Error, no memory available.....	299
3.10.19 F9180002, Maximum number of axes exceeded.....	299
3.10.20 F9180003, Axis registration invalid.....	300
3.10.21 F9180004, Invalid mode change requested.....	300
3.10.22 F9200016, PLC watchdog expired.....	300
3.10.23 F9200017, Hardware watchdog expired.....	300
3.10.24 F9200020, MK1 watchdog expired.....	300
3.10.25 F9200021, MK2 watchdog expired.....	300
3.10.26 F9200034, No free memory (RAM) available.....	300
3.10.27 F9200035, No free remanent memory (NVRAM) available.....	301
3.10.28 F9220001, Invalid error reaction.....	301
3.10.29 F9220002, Error in the axis state machine.....	301
3.10.30 F9240001, Exception, Divide Error.....	301
3.10.31 F9240002, Exception, Invalid Opcode.....	301
3.10.32 F9240003, Exception, Stack Fault.....	302
3.10.33 F9240004, Exception, General Protection Fault.....	302

Table of Contents

	Page
3.10.34 F9240005, Exception, Page Fault.....	302
3.10.35 F9240006, Exception, Coprocessor Error.....	302
3.10.36 F9240007, Exception, Unknown Exception.....	302
3.10.37 F9240020, Timeout while sending the message queue.....	302
3.10.38 F9240021, Timeout while receiving the message queue.....	302
3.10.39 F9240022, No free buffer space to send a message.....	303
3.10.40 F9240023, No free buffer space to receive a message.....	303
3.10.41 F9240024, Error while sending the message queue.....	303
3.10.42 F9240025, Error while receiving the message queue.....	303
3.10.43 F9240026, Error response not possible.....	303
3.10.44 F92C0003, Fatal transformation error.....	303
3.10.45 F92C0007, Inadmissible change of coordinate system.....	303
3.10.46 F92C0023, HEAP-Overflow.....	304
3.10.47 F92C0028, Invalid interpolation type.....	304
3.10.48 F92C0079, Invalid Robot Control configuration.....	304
3.10.49 F92C007D, Invalid init mode.....	304
3.10.50 F92C00CC, Error in task suspend.....	304
3.10.51 F92C00CD, Error in usertask suspend.....	304
3.10.52 F92C00D4, Error in PARALLEL_END.....	304
3.10.53 F92C00DD, Device-I/O: Exclusive access could not be secured.....	304
3.10.54 F92C00DE, Device-I/O: Error in exclusive access.....	304
3.10.55 F92C00E0, File chain not sequential.....	305
3.10.56 F92C00E1, Error in file management.....	305
3.10.57 F92C00E2, File management error in file-I/O.....	305
3.10.58 F92C00E3, File management error in organization block.....	305
3.10.59 F92C00E4, File management error in file chain.....	305
3.10.60 F92C00E7, Invalid write access (end of file).....	305
3.10.61 F92C00E8, Invalid write access (destination address too large).....	305
3.10.62 F92C00E9, End of file exceeded.....	305
3.10.63 F92C00EB, Invalid file read mode.....	305
3.10.64 F92C00EC, Invalid file open mode.....	306
3.10.65 F92C00ED, Allocation error.....	306
3.10.66 F92C00EE, Wrong file open mode for Allocation.....	306
3.10.67 F92C00F0, Wrong control mode for file list.....	306
3.10.68 F92C00F1, Wrong control mode for file close.....	306
3.10.69 F92C00F4, File chain not sequential.....	306
3.10.70 F92C0314, File management error in organization block.....	306
3.10.71 F92C0318, Wrong block status of file.....	306
3.10.72 F92C0319, File not sequential.....	306
3.10.73 F92C043E, Wrong absolute address in IRD-programm.....	307
3.10.74 F92C0456, Fatal error: In PKT file.....	307
3.10.75 F92C0ED8, Fatal file administration error: File not open.....	307
3.10.76 F92C0ED9, Fatal file administration error: File not open.....	307
3.10.77 F92C0EDA, Fatal file administration error: File not open.....	307
3.10.78 F92C0EDB, Fatal file administration error: File not open.....	307
3.10.79 F92C0EDC, Fatal file administration error: File not open.....	307

Table of Contents

	Page
3.10.80 F92C0EDD, Fatal file administration error: File not open.....	308
3.10.81 F92C0EDE, Fatal file administration error: File not open.....	308
3.10.82 F92C0EDF, Fatal file administration error: File not open.....	308
3.10.83 F92C0EE0, Fatal file administration error: File compressing.....	308
3.10.84 F92C0EE1, Fatal file administration error: Search file.....	308
3.10.85 F92C0EE2, Fatal file administration error: Wrong file attribute.....	308
3.10.86 F92C0EE3, Fatal file administration error: Illegal block.....	308
3.10.87 F92C0EE4, Fatal file administration error: File search.....	308
3.10.88 F92C0EE5, Fatal file administration error: File open.....	309
3.10.89 F92C0EE6, Fatal file administration error: File search.....	309
3.10.90 F92C0EE7, Fatal file administration error: File read.....	309
3.10.91 F92C0EE8, Fatal file administration error: File open.....	309
3.10.92 F92C0EE9, Fatal file administration error.....	309
3.10.93 F9301000, Error while loading the PLS-Firmware.....	309
3.10.94 F93C0001, Exception at parsing of XML configuration.....	309
 4 sercos Error Diagnostics.....	 311
4.1 General Information on sercos Errors.....	311
4.2 F02D0000, sercos: No error in the service channel.....	311
4.3 F02D0001, sercos: Service channel not open.....	311
4.4 F02D0003, Max. count of parallel parameter requests exceeded.....	311
4.5 F02D0007, Parameter access to remote control not allowed.....	311
4.6 F02D0009, sercos: Invalid access to closing the service channel.....	311
4.7 F02D00A0, sercos: Parameter service channel is not open.....	311
4.8 F02D00B0, sercos: Parameter element does not exist.....	312
4.9 F02D00C0, sercos: Selected drive does not exist.....	312
4.10 F02D1001, sercos: No IDN.....	312
4.11 F02D1009, sercos: Invalid access to element 1.....	312
4.12 F02D2001, sercos: No name.....	312
4.13 F02D2002, sercos: Name transmission too short.....	313
4.14 F02D2003, sercos: Name transmission too long.....	313
4.15 F02D2004, sercos: Name cannot be changed (read only).....	313
4.16 F02D2005, sercos: Name is write-protected at this time.....	313
4.17 F02D3002, sercos: Attribute transmission too short.....	313
4.18 F02D3003, sercos: Attribute transmission too long.....	313
4.19 F02D3004, sercos: Attribute cannot be changed (read only).....	313
4.20 F02D3005, sercos: Attribute is write-protected at this time.....	313
4.21 F02D4001, sercos: No units.....	313
4.22 F02D4002, sercos: Unit transmission too short.....	314
4.23 F02D4003, sercos: Unit transmission too long.....	314
4.24 F02D4004, sercos: Unit cannot be changed (read only).....	314
4.25 F02D4005, sercos: Unit is write-protected at this time.....	314
4.26 F02D5001, sercos: No minimum input value.....	314
4.27 F02D5002, sercos: Min. input value transmission too short.....	314
4.28 F02D5003, sercos: Min. input value transmission too long.....	314
4.29 F02D5004, sercos: Min. input value cannot be changed (read only).....	314

Table of Contents

	Page
4.30 F02D5005, sercos: Min. input value is write-protected at this time.....	315
4.31 F02D6001, sercos: No maximum input value.....	315
4.32 F02D6002, sercos: Max. input value transmission too short.....	315
4.33 F02D6003, sercos: Max. input value transmission too long.....	315
4.34 F02D6004, sercos: Max. input value cannot be changed (read only).....	315
4.35 F02D6005, sercos: Max. input value is write-protected at this time.....	315
4.36 F02D7001, sercos: No operation data.....	315
4.37 F02D7002, sercos: Operation data transmission too short.....	315
4.38 F02D7003, sercos: Operation data transmission too long.....	316
4.39 F02D7004, sercos: Operation data cannot be changed (read only).....	316
4.40 F02D7005, sercos: Operation data is write-protected at this time.....	316
4.41 F02D7006, sercos: Operation data is smaller than the min input value.....	316
4.42 F02D7007, sercos: Operation data is greater than the max input value.....	316
4.43 F02D7008, sercos: Invalid operation data.....	316
4.44 F02D7009, sercos: Operation data write-protected by a password.....	316
4.45 F02D700A, sercos: Operation data is write-protected (cycl. conf).....	317
4.46 F02D700B, sercos: Invalid indirect addr., (data container, list).....	317
4.47 F02D700C, sercos: Operation data is write-protected (other settings).....	317
4.48 F02D700D, sercos: Invalid floating point number.....	317
4.49 F02D700E, sercos: Reserved.....	317
4.50 F02D700F, sercos: Reserved.....	317
4.51 F02D7010, sercos: Procedure command already active.....	317
4.52 F02D7011, sercos: Procedure command not interruptible.....	317
4.53 F02D7012, sercos: Procedure command at this time not executable.....	318
4.54 F02D7013, sercos: Procedure command not executable.....	318
4.55 F02D710C, sercos: Data exceed maximal range.....	318
4.56 F02D8001, sercos: Access temporary not possible.....	318
4.57 F02D8096, sercos: Device deactivated.....	318
4.58 F02D8097, sercos: Device does not exist.....	318
 5 Service and Support.....	 319
 Index.....	 321

1 About this Documentation

1.1 Validity of the Documentation

This documentation describes messages, warnings, command errors and errors of the IndraLogic XLC / IndraMotion MLC in version 12V08.

It explains how to generate diagnostics and document them in the logbook.

Target group It supports the operating crew as well as the programmer during the error recovery.

Application phases This documentation supports the user during the following phases:

- Engineering
- Commissioning
- Operation and programming
- Maintenance
- Troubleshooting

1.2 Documentation Structure

The first part of the document describes the basics of the IndraLogic XLC / IndraMotion MLC diagnostic system.

The actual diagnostics are classified in

- [Messages, page 55](#),
- [Warnings, page 83](#),
- [Command errors, page 104](#),
- [F0 errors, page 107](#),
- [F1 errors, page 236](#),
- [F2 errors, page 260](#),
- [F5 errors, page 291](#),
- [F8 errors, page 294](#) and
- [F9 errors, page 297](#).

Diagnostics on [sercos errors, page 311](#), supplement this documentation.

[Service and Support, page 319](#), contains information on the Bosch Rexroth customer service help desk.

1.3 Required and Supplementing Documentations

Documentation titles with type codes and parts numbers

IndraWorks		MLC	XLC
/36/	Rexroth IndraWorks 12VRS Software Installation DOK-IWORKS-SOFTINS*V12-COxx-EN-P, R911334396 This documentation describes the IndraWorks installation.	X	X
/5/	Rexroth IndraWorks 12VRS Engineering DOK-IWORKS-ENGINEE*V12-APxx-EN-P, R911334388 This documentation describes the application of IndraWorks in which the Rexroth Engineering tools are integrated. It includes instructions on how to work with IndraWorks and how to operate the oscilloscope function.	X	X

About this Documentation

/20/	Rexroth IndraMotion MLC 12VRS Functional Description DOK-MLC***-FUNC****V12-APxx-EN-P, R911333848 This documentation describes wizards, context menus, dialogs, control commissioning, device configuration and functionalities of the IndraMotion MLC.	X	
/20/	Rexroth IndraLogic XLC 12VRS Functional Description DOK-XLC***-FUNC****V12-APxx-EN-P, R911333878 This documentation describes wizards, context menus, dialogs, control commissioning, device configuration and functionalities of the IndraLogic XLC.		X
/7/	Rexroth IndraWorks 12VRS CamBuilder DOK-IWORKS-CAMBUIL*V12-APxx-EN-P, R911333842 This documentation describes the basic principles and operation of the CamBuilder, the cam editing tool.	X	X
/37/	Rexroth IndraLogic XLC IndraMotion MLC 12VRS Automation Interface DOK-XLCMLC-AUT*INT*V12-APxx-EN-P, R911334178 This documentation describes the script-based access to IndraWorks project data via the interface of the Automation Interface.	X	X
/38/	Rexroth IndraWorks 12VRS FDT Container DOK-IWORKS-FDT*CON*V12-APxx-EN-P, R911334398 This documentation describes the IndraWorks FDT Container functionality. It includes the activation of the functionality in the project and working with DTMs.	X	X
/29/	Rexroth IndraLogic XLC IndraMotion MLC 12VRS Project Conversion DOK-XLCMLC-PROCONV*V12-APxx-EN-P, R911334187 This documentation describes the project conversion of IndraLogic 04VRS and IndraMotion MLC04VRS on IndraWorks version 12 with IndraLogic 2G. Changes with regard to Motion and PLC are described in detail.	X	X
/28/	Rexroth IndraMotion MLC 12VRS Commissioning DOK-MLC***-STARTUP*V12-COxx-EN-P, R911333858 This documentation describes the steps required to commission and perform service on the IndraMotion MLC system. It includes checklists for tasks to be frequently performed and a detailed description of the steps.	X	

Motion		MLC	XLC
/23/	Rexroth IndraLogic XLC IndraMotion MLC 12VRS PLCopen Libraries DOK-XLCMLC-FUNLIB**V12-LIxx-EN-P, R911334182 This documentation describes the function blocks, functions and data types of the RIL_Common-Types, ML_Base and ML_PLCOpen libraries for the IndraLogic XLC/IndraMotion MLC. It also includes the error reactions of function blocks.	X	X
/27/	Rexroth IndraLogic XLC IndraMotion MLC 12VRS Generic Application Template DOK-XLCMLC-TF*GAT**V12-APxx-EN-P, R911334191 This documentation provides a structured template to the IndraLogic PLC programmer. This template can be used to add and edit the PLC programming code. It includes the template, the template wizard and example applications.	X	X

About this Documentation

/31/	Rexroth IndraMotion MLC 12VRS RCL Programming Instruction DOK-MLC***-RCL*PRO*V12-APxx-EN-P, R911333852 This documentation provides information on the RobotControl. The programming language RCL (RobotControl Language) is focused. The program structure, variables, functions, motion statements and the required system parameters are described.	X	
/21/	Rexroth IndraLogic XLC IndraMotion MLC 12VRS Parameters DOK-XLCMLC-PARAM***V12-RExx-EN-P, R911334176 This documentation describes the parameters of the XLC/MLC systems as well as the interaction between parameterization and programming. It includes the axis parameters, control parameters, kinematic parameters, touch probe parameters and programmable limit switch parameters.	X	X
/10/	Rexroth IndraDrive Firmware for Drive Controllers MPH-, MPB-, MPD-, MPC-07 DOK-INDRV*-MP*-07VRS**-FKxx-EN-P, R911328670		
/11/	Rexroth IndraDrive MPx-16 Functions DOK-INDRV*-MP*-16VRS**-APxx-EN-P, R911326767		

Field buses		MLC	XLC
/39/	Rexroth IndraMotion MLC 11VRS PLCopen Field Bus DOK-IM*ML*-PLCFBUS*V11-APxx-EN-P, R911333896 This documentation describes the creation of field bus drives in an IndraWorks project, function blocks, functions and data types of the RIL_CommonTypes.library (excerpt for field bus drives), the RMB_PLCPopenFieldBus.library and the RIL_Utility.library (excerpt for field bus drives). It also includes the error reactions of function blocks.	X	X
/4/	Rexroth IndraWorks 12VRS Field Buses DOK-IWORKS-FB*****V12-APxx-EN-P, R911334394 This documentation describes the supported field buses and their diagnostic function blocks.	X	X

HMI		MLC	XLC
/8/	Rexroth IndraWorks 12VRS HMI DOK-IWORKS-HMI*****V12-APxx-EN-P, R911334392 This documentation describes the functions, configuration and operation of the user interfaces IndraWorks HMI Engineering and IndraWorks HMI Operation.	X	X
/6/	Rexroth IndraWorks 12VRS WinStudio DOK-IWORKS-WINSTUD*V12-APxx-EN-P, R911333844 This documentation describes the installation of the software, working with WinStudio and the creation and operation of applications.	X	X
/50/	Rexroth IndraLogic XLC IndraMotion MLC 12VRS HMI Connection DOK-XLCMLC-HMI*****V12-APxx-EN-P, R911334184 This documentation describes the visualization systems supported by the IndraLogic XLC and IndraMotion MLC and their connection.	X	X

About this Documentation

PLC		MLC	XLC
/3/	Rexroth IndraWorks 12VRS IndraLogic 2G Programming Instruction DOK-IWORKS-IL2GPRO*V12-APxx-EN-P, R911334390 This documentation describes the PLC programming tool IndraLogic 2G and its use. It includes the basic use, first steps, visualization, menu items and editors.	X	X
/33/	Rexroth IndraWorks 12VRS, Basic Libraries, IndraLogic 2G DOK-IL*2G*-BASLIB**V12-LIxx-EN-P, R911333835 This documentation describes the system-comprehensive PLC libraries.	X	X

Technology			
/30/	Rexroth IndraMotion MLC 12VRS Technology Libraries DOK-MLC***-TF*LIB**V12-LIxx-EN-P, R911333868 This documentation describes the function blocks, functions and data types of the "ML_TechInterface.library", "ML_TechMotion.library", "RMB_TechCam.library" and "ML_TechBase.library". It also includes libraries for the winder functionality, register controller functionality and CrossCutter functionality.	X	
/60/	Rexroth IndraMotion MLC 12VRS RegisterControl (Library) DOK-MLC***-REGI*CO*V12-LIxx-EN-P, R911333856 This documentation describes the inputs and outputs of the individual function blocks and provides notes on their use.	X	
/62/	Rexroth IndraMotion MLC 12VRS RegisterControl (Application Manual) DOK-MLC***-REGI*CO*V12-APxx-EN-P, R911333854 This documentation describes the application of the integrated register control for a rotogravure printing machine. The components of the mark stream sensor, the HMI application and the error recovery options are described. This instruction provides information on how to operate the register control, react to errors and query diagnostics. This documentation is written for machine setters and machine operators.	X	
/49/	Rexroth IndraMotion MLC 12VRS Winder Function Application DOK-MLC***-TF*WIND*V12-APxx-EN-P, R911333870 This application-related system documentation describes the application of the winder technology functions.	X	

Hardware		MLC	XLC
/1/	Rexroth IndraControl L45/L65 DOK-CONTRL-IC*L45*L65*-PRxx-EN-P, R911324661	X	X
/2/	Rexroth IndraControl L25 DOK-CONTRL-IC*L25*****-PRxx-EN-P, R911328474	X	X
/24/	Rexroth IndraControl Lxx 12VRS Function Modules DOK-CONTRL-FM*LXX**V12-APxx-EN-P, R911333830 This documentation describes all function modules of the Lxx controls including engineering and diagnostics.	X	X
/12/	Rexroth IndraDrive Drive Controllers MPx-02 to MPx-07 DOK-INDRV*-GEN-**VRS**-PAxx-EN-P, R911297317		

About this Documentation

/13/	Rexroth IndraDrive MPx-02 to MPx-07 and HMV DOK-INDRV*-GEN-**VRS**-Waxx-EN-P, R911297319		
/35/	Rexroth IndraDrive Drive Controller Control Sections CSB01, CSH01, CDB01 DOK-INDRV*-CSH*****-PR08-EN-P, R911295012		

Diagnostics and service		MLC	XLC
/26/	Rexroth IndraMotion MLC/XLC 11VRS Service Tool DOK-IM*ML*-IMST****V11-RExx-EN-P, R911331940	X	X
/22/	Rexroth IndraLogic XLC IndraMotion MLC 12VRS Diagnostics DOK-XLCMLC-DIAG****V12-RExx-EN-P, R911334180 This documentation includes all control parameters implemented in the control systems IndraLogic XLC and IndraMotion MLC.	X	X

System Overview		MLC	XLC
/48/	Rexroth IndraMotion for Printing 12VRS System Overview DOK-IM*PR*-SYSTEM**V11-PRxx-EN-P, R911333840 This documentation describes the product IndraMotion for Packaging. It introduces the control systems, drive systems and I/O systems as well as the commissioning and programming.	X	
/48/	Rexroth IndraMotion for Packaging 12VRS System Overview DOK-IM*PA*-SYSTEM**V12-PRxx-EN-P, R911333838 This documentation describes the product IndraMotion for Packaging. It introduces the control systems, drive systems and I/O systems as well as the commissioning and programming.	X	
/9/	Rexroth IndraMotion MLC 12VRS System Overview DOK-MLC***-SYSTEM**V12-PRxx-EN-P, R911333860 This documentation provides an overview on the hardware/software components of the automation system IndraMotion MLC in the mentioned version. It helps assembling a system.	X	
/9/	Rexroth IndraLogic XLC 12VRS System Overview DOK-XLC***-SYSTEM**V12-PRxx-EN-P, R911333880 This documentation provides an overview on hardware/software components of the automation system IndraLogic XLC in the respective version. It helps assembling a system.		X

First steps		MLC	XLC
/25/	Rexroth IndraMotion MLC 12VRS First Steps DOK-MLC***-F*STEP**V12-COxx-EN-P, R911333846 This documentation describes the first steps of the IndraMotion MLC and the RobotControl. It includes the hardware and software prerequisites as well as the creation of a project.	X	
/25/	Rexroth IndraLogic XLC 12VRS First Steps DOK-XLC***-F*STEP**V12-COxx-EN-P, R911333876 This documentation describes the first steps of the IndraLogic XLC. It includes the hardware and software prerequisites as well as the creation of a project.		X

xx Corresponding edition
Fig. 1-1: XCL/MLC documentation overview

About this Documentation

1.4 Information Representation

1.4.1 Safety Instructions

If there are the safety instructions in the documentation, they contain certain signal words ("Danger", "Warning", "Caution", "Notice") and sometimes a safety alert symbol (according to ANSI Z535.6-2006).

The signal word draws the attention to the safety instruction and indicates the risk potential.

The safety alert symbol (triangular safety reflector with three exclamation marks), preceding the signal words "Danger", "Warning", "Caution" indicates hazards for persons.

The safety instructions are represented as follows in this documentation:

DANGER

In case of non-compliance with this safety instruction, death or serious injury **will** occur.

WARNING

In case of non-compliance with this safety instruction, death or serious injury **can** occur.

CAUTION

In case of non-compliance with this safety instruction, minor or moderate injury can occur.

NOTICE

In case of non-compliance with this safety instruction, material or property damage can occur.

1.4.2 Symbols Used

Note Notes are represented as follows:



This is a note for the user.

Tip Tips are represented as follows:



This is a tip for the user.

1.4.3 Names and Abbreviations

Term	Explanation
IndraLogic XLC	Compact PLC system with integrated Motion functionality
IndraMotion MLC	Compact Motion Logic systems with Motion, Robot and Logic Control functionality

About this Documentation

IndraWorks Engineering Framework	Project planning and commissioning tool of Bosch Rexroth
IndraDrive	Drive control section
Hydraulic-Drive	Drive control unit for hydraulic drives
SercosDrive	Drive control section with parameter block according to the Pack Profile
Wizard	Wizard guiding the user through several dialogs for an ergonomic data input
IEC	International Electrotechnical Commission
OEM	Original Equipment Manufacturer
sercos	sercos (SErial Realtime COmmunication System) interface is a world-wide standardized interface for the communication between controls and drives
XML	Extensible Markup Language (XML). It is a markup language to represent hierarchical structured data as text data

Fig. 1-2: Names and abbreviations used

2 General Information on the XLC/MLC Diagnostic System

2.1 Structure of an XLC/MLC Diagnostics

An XLC/MLC diagnostics consists of an 8-digit diagnostic number and a diagnostic text in several languages and, for some selected messages, also a plain language text displayed instead of the diagnostic number.

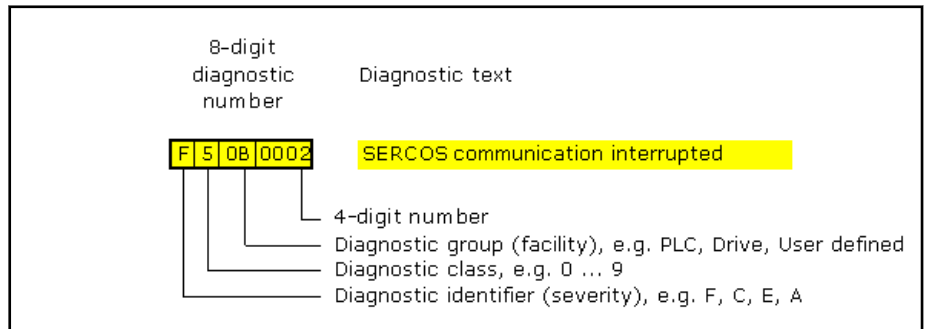


Fig.2-1: Structure of a diagnostics

Diagnostic identifier

Currently, four different categories (severity) are supported:

- F - Error
- C - Command error
- E - Warning
- A - Message

The severity is defined as follows: **F > C > E > A**.



Plain language displays have the lowest message priority (**A0**).

Severity of the diagnostics

Currently, ten classes of severity are supported for the control system:

F9 > ... > F1 > F0 ; C8 > ... > C1 > C0 ; E8 > ... > E0 ; A8 > ... > A0.

Currently, the system uses F9 ... F0, C0, E0 and A0.

Messages (A8...A0) can also be displayed in addition to errors (F8..F0) and warnings (E8...E0) (via the functions ML_SetAxisDiagEntry and ML_SetDiagEntry).

The following table shows the different evaluations of error classes and error reactions.

	Description/name	Error reaction
0	Non-fatal error	Logbook entry is generated; message is shown on the display; no error reaction.
1	Axis group error	Logbook entry is generated; message is shown on the display. If an axis belonging to a group triggers an error of the severity F2, setting the axis to standstill, this axis is currently lost to the group and the group reacts with an F1 error, setting all axes of the group to standstill.

General Information on the XLC/MLC Diagnostic System

	Description/name	Error reaction
2	Axis error	Logbook entry is generated; message is shown on the display. Axis (or drive) is decelerated the best possible (velocity to 0); all other axes are not affected.
3	Axis error	Logbook entry is generated; message is shown on the display. Axis (or drive) is decelerated the best possible (torque enabled); all other axes are not affected.
4/5/6/7	Control error	Logbook entry is generated; message is shown on the display. All axes are decelerated the best possible.
8	Fatal control error	Logbook entry is generated; message is shown on the display. All axes are decelerated the best possible.
9	Fatal system error Exception, undefined system states	Logbook entry is generated; message is shown on the display. Firmware is no longer operating; call of FatalSystemErrorHandler(), No error reaction to the drive; torque enabled.

Fig.2-2: Error reaction depending on the error class

Display order The most severe diagnostics is always displayed. Once it is acknowledged, the next most severe diagnostics is displayed.

Diagnostic group It indicates the components the diagnostics has caused. (Combinations not named are reserved for future use.)

Group	Cause/error table
00	IndraDrive Drive Error, page 48 , IndraDrive Drive Warnings, page 49 / INDRV_TABLE
01...A9	MLC firmware, e.g. Errors of a virtual axis, page 50
2D	sercos error messages, page 51 / sercos_TABLE
2E	SercosDrive, IndraDrive with interpolation in the control, page 50
39	Messages of the 3S kernel
3A	Messages of BRC components
3B	PLC user messages, page 51

Fig.2-3: Diagnostic groups (error origin)

There is no scaling between groups.

Number There is a numerical range between 0000 ... FFFF for each group. There is no scaling.

2.2 Diagnostic Numbers and Texts in the IndraControl L25/L45/L65 Display

Diagnostic texts and diagnostic numbers are displayed via the IndraMotion MLC L25/L45/L65 display. They describe the control startup, show the control state and display errors flashing as error number or alternating for drive errors with drive number.

Press <Esc> and <Enter> for eight seconds to switch to "Advanced Mode". Only for authorized personnel. This enables the functions in orange below.

General Information on the XLC/MLC Diagnostic System

Additionally, user-specific texts can be displayed from the PLC program. These overwrite the default display. However, they are also overwritten by error messages.

The following figure shows the error display options for the IndraMotion MLC:

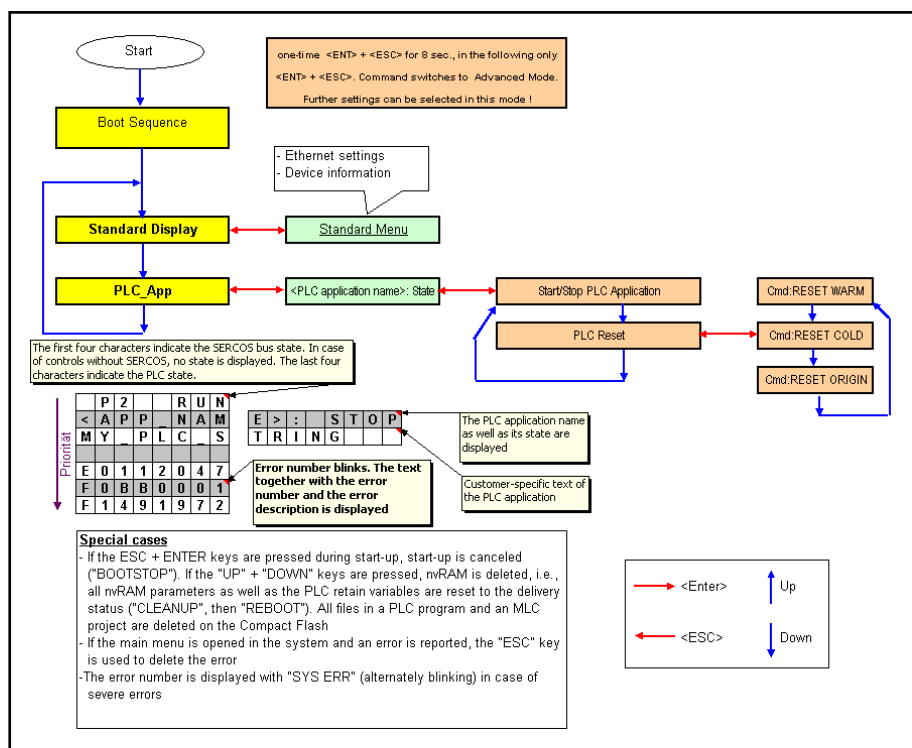


Fig.2-4: Default display

If <Esc> + <Enter> are pressed while booting, the startup is aborted ("BOOTSTOP").

If <Up> + <Down> are pressed within a certain period of time, the nvRAM is deleted. That means that all nvRAM parameters as well as retain variables of the PLC are reset to delivery state ("CLEANUP" then "REBOOT").

Additionally, all files belonging to a PLC program as well as the files belonging to an MLC project are deleted on the Compact Flash.

If the system is in the main menu and an error is present, press <Esc> to clear the error.

In case of severe errors, the error number and "SYS ERR" flash alternately.

2.3 Diagnostic Numbers and Diagnostic Texts in the "Error/Diagnostics Memory", IndraWorks MLC/XLC

The Error/Diagnostics Memory dialog provides an overview on the error state of the control and its drives. The dialog box evaluates the control logbook. It is accessed via the parameters described below. Error memory/logbook are organized as batch. The current status is on top and with the highest index (top line in the figure).

General Information on the XLC/MLC Diagnostic System

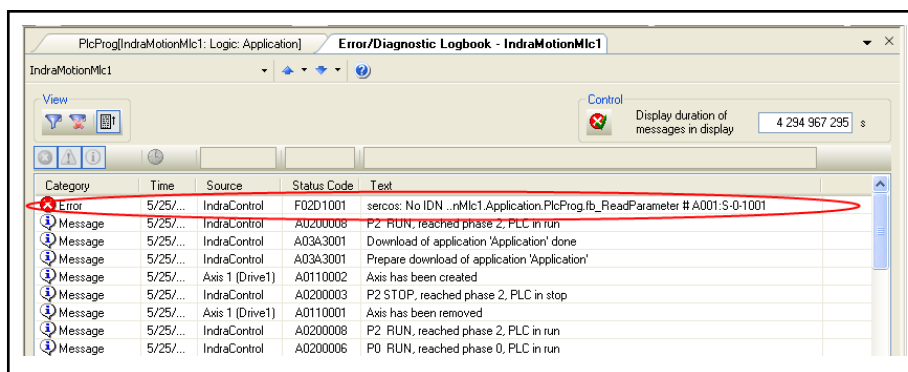


Fig.2-5: Error/diagnostic memory dialog from the "Functional Description" on the IndraMotion MLC/XLC

Double-click on the desired line to open the <F1> help topic on the corresponding diagnostics.

Error messages of the PLC function block instances are entered in the "Error/Diagnostic Memory" like drive errors.

This applies to the function blocks of the libraries ML_PLCopen and ML_Robot.

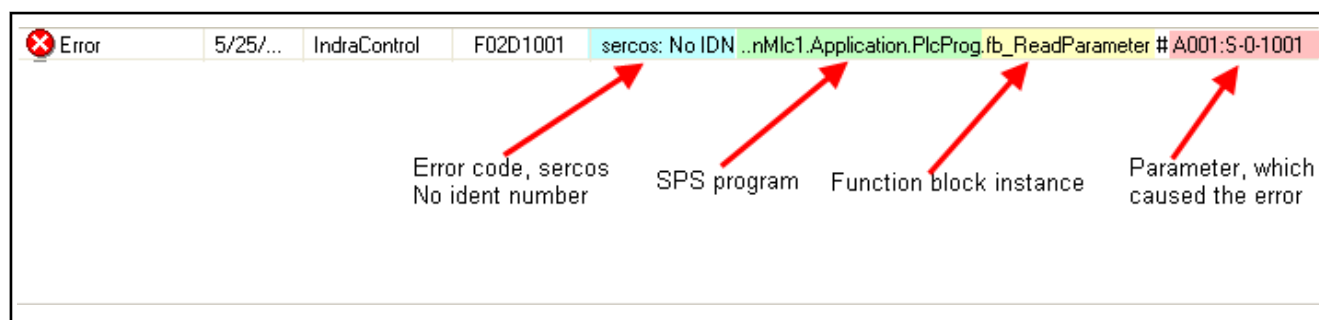


Fig.2-6: Extended diagnostic line for error messages of PLC function block instances

- The source is **IndraControl** followed by an 8-digit error code.
In the example: F02D1001, sercos, no ID number.
- The following text contains the instance path to the error cause. Since the number of characters is limited, it can be shortened at the beginning with "...".
- Additional information is provided depending on the error cause. Additional information is separated by a hash "#".
The respective POU inputs are listed in italics in brackets.

Function block types and their additional information

- RD / WR parameter** (MB_Read..., MB_Write..., MB_Command, MC_ReadActualPosition, MC_ReadAxisError, MB_Group...)
Axis address (AxisRef.AxisNo): Parameter ident number (Parameter-Number)
Example: "A002:S-0-0815"
If the parameter ident number type (A, C, ...) cannot be resolved, the additional information is displayed as value without being formatted.
Example: "0x00900980.20037654"

General Information on the XLC/MLC Diagnostic System

- **Motion POU**s (MC_MoveAbsolute, MC_..., ML_OpenCyclic..., ML_ControlOn, ML_ControlOff, MB_Home, MB_Phasing..., ML_FlexProfile, MC_ReadStatus)
Axis address (AxisRef.AxisNo)
Example: "A042"
- **MB_ChangeCamData:**
Axis address (AxisRef.AxisNo) | Cam table (CamTableID) | Number of data points (NumberOfElements)
Example: "A001 | CamNo 2 | NofEle 42"
- **MB_ChangeMotionProfileStep:**
Axis address (AxisRef.AxisNo) | MotionProfile (SetNumber) | Motion step (StepNumber)
Example: "A001 | Set 1 | Step 5"
- **MB_ChangeMotionProfileSet:**
Axis address (AxisRef.AxisNo) | MotionProfile (SetNumber) | Number of motion steps (NumberOfSteps)
Example: "A001 | Set 1 | NofStep 5"
- **MB_ChangeFlexProfileStep:**
Axis address (AxisRef.AxisNo) | FlexProfile (SetNumber) | Motion step (StepNumber)
Example: "A001 | Set 1 | Step 5"
- **MB_ChangeFlexProfileSet:**
Axis address (AxisRef.AxisNo) | FlexProfile (SetNumber) | Number of motion steps (NumberOfSteps)
Example: "A001 | Set 1 | NofStep 5"
- **MB_ChangeFlexEventSet:**
Axis address (AxisRef.AxisNo) | FlexProfile (SetNumber) | Number of Events (NumberOfEvents)
Example: "A001 | Set 1 | NofEv 5"
- **ML_WriteCyclic...:**
Axis address (AxisRef.AxisNo)
Example: "A001"
- **ML_ControlWriteActualData:**
Axis address (AxisRef.AxisNo)
Example: "A001"

2.4 Diagnostic Numbers in the PLC Program

PLCopen function blocks are provided with an error management that indicates errors with a 0/1 transition on the "Error" bit briefly explained by an Enum text at the "ErrorID" output and provides a detailed description on the "ErrorIdent" output.

General Information on the XLC/MLC Diagnostic System

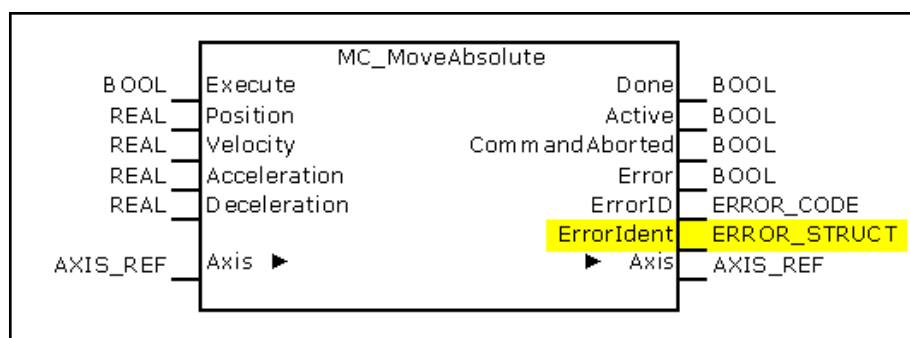


Fig.2-7: Error management of the MC_MoveAbsolute function block
Program:

```
(* Structure to implement the diagnostics of the function block *)
TYPE ERROR_STRUCT :
STRUCT
  Table      : ERROR_TABLE; (* Additional diagnostic table *)
  Additional1 : DWORD;      (* It contains the error number (diagnostics)*)
  Additional2 : DWORD;      (* as in the table. *)
  (* can contain supplements to "Additional1". *)
END_STRUCT
END_TYPE
```

Each of the following table numbers can be issued as "Table" number.

List of error tables

```
(* Enumeration of valid tables in additional information *)
TYPE ERROR_TABLE:
(
  NO_TABLE_USED      := 16#0000, (* reserved *)
  SERCOS_TABLE       := 16#0010, (* Sercos Error: Additional1 = Sercos Code *)
  MLD_TABLE          := 16#0020, (* Drive-based Motion - Logic *)
  MLC_TABLE          := 16#0030, (* Controller - based Motion - Logic *)
  MTX_TABLE          := 16#0040, (* CNC *)
  MLP_TABLE          := 16#0050, (* PC - based Motion Logic *)
  PLC_TABLE          := 16#0060, (* PLC *)
  INDRV_TABLE        := 16#0070, (* IndraDrive *)
  DIAX_TABLE         := 16#0080, (* DIAX *)
  ECO_TABLE          := 16#0090, (* EcoDrive *)
  PB_DP_TABLE        := 16#0130, (* Profibus *)
  DEVICENET_TABLE    := 16#0140, (* DeviceNet *)
  ETHERNET_TABLE     := 16#0150, (* Ethernet *)
  ETHERNET_IP_TABLE  := 16#0151, (* Ethernet/IP ODVA *)
  INTERBUS_TABLE     := 16#0160, (* Interbus *)
  F_RELATED_TABLE    := 16#0170, (* function related *)
  CAN_TABLE          := 16#0180, (* CAN bus *)
  INLINEIO_TABLE     := 16#0190, (* Inline IOs *)
  PROFINETIO_TABLE   := 16#0200, (* ProfinetIO, ProfinetIO Device *)

  USER1_TABLE        := 16#1000, (* free User Table *)
  USER10_TABLE       := 16#1009, (* free User Table *)
);
END_TYPE
```

2.5 Implementing Diagnostic Messages

2.5.1 IndraDrive/HydraulicDrive Drive Errors

The diagnostics is extended to eight digits and error class 2 is specified (e.g.: E-stop interpreted as error message: **F4034** ⇒ **F2004034**).

Error class 2 specifies the error reaction of the control (drive F4 and control F2):

- "Error/Diagnostic Memory" entry is generated
- Message is shown on the display

General Information on the XLC/MLC Diagnostic System

- Axis set to standstill the best possible.

The original message of the drive is also displayed in the text in IndraWorks.

Display location	Message content
Drive message S-0-0390	F4034
Drive diagnostics S-0-0095	Diagnostic text
Axis diagnostic message A-0-0020	Diagnostic text from S-0-0095
Axis diagnostic message A-0-0023	F2004034
L25/L45/L65 display C-0-0626	Axis 1 F2004034
Error reaction	Class 2
IW text	"IndraDrive F4034"
Help topic for IW_Text (double-click on the line)	Diagnostics for IndraDrive

Fig.2-8: Example: IndraDrive error



IndraDrive/HydraulicDrive drive errors are also generated when "calculating on the control".

2.5.2 IndraDrive/HydraulicDrive Drive Warnings

The diagnostics is extended to eight digits and class 0 is always used (there is only one class for warnings in the control (e.g.: E-Stop, interpreted as warning: **E8034**).

- "Error/Diagnostic Memory" entry is generated
- Message is shown on the display
- No drive/axis reaction is triggered by the control.

The original message of the drive is also displayed in the text in IndraWorks.

Display location	Message content
Drive message S-0-0390	E8034
Drive diagnostics S-0-0095	Diagnostic text
Axis diagnostic message A-0-0020	Diagnostic text from S-0-0095
Axis diagnostic message A-0-0023	E0008034
L25/L45/L65 display C-0-0626	Axis 1 E0008034
Error reaction	Class 0
IW text	"IndraDrive E8034" + diagnostic text from S-0-0095
Help topic for IW_Text (double-click on the line)	Diagnostics for IndraDrive

Fig.2-9: Example: IndraDrive warning



IndraDrive/HydraulicDrive drive warnings are also generated when "computing on the control".

General Information on the XLC/MLC Diagnostic System

2.5.3 Virtual Axis, Error Messages

The diagnostics consists of eight digits and the error class is always 2 (e.g.: MC_Stop is enabled in IndraLogic and MC_MoveVelocity is started afterwards):

- "Error/Diagnostic Memory" entry is generated
- Message is shown on the display
- Best possible standstill of the axis.

The message from the database is also displayed in the text in IndraWorks.

Display location	Message content
Drive message S-0-0390	Not applicable
Axis diagnostic message A-0-0020	"F2229206"
Axis diagnostic message A-0-0023	F2229206
L25/L45/L65 display C-0-0626	Axis 2 F2229206
Error reaction	Class 2
IW text	Virtual axis F2229206 " 'Stopping' state command rejected"
Help topic for IW_Text (double-click)	Diagnostics for MLC

Fig.2-10: Example: Virtual axis error

2.5.4 SercosDrive, Pack Profile, Error Messages

The diagnostics of a SercosDrive cannot be directly determined. Diagnostics F22E2000 is identified in case of error:

- "Error/Diagnostic Memory" entry is generated
- Message is shown on the display
- Best possible standstill of the axis.

The original message of the drive is also displayed in the text in IndraWorks.

Display location	Message content
Drive message S-0-0390	Not applicable
Axis diagnostic message A-0-0020	"F22E0000"
Axis diagnostic message A-0-0023	F22E0000
L25/L45/L65 display C-0-0626	Axis 3 F22E0000
Error reaction	Class 2
IW text	Drive error!
Help topic on IW_Text	Diagnostics for MLC

Fig.2-11: Example: Error of a generic axis

For a definitive diagnostics, the user has to use the diagnostic tools of his drive manufacturer.



If an IndraDrive is operated as SercosDrive, only the diagnostics common for SercosDrive are available.

2.5.5 sercos Error Messages

The four-digit error messages are extended to eight digits. All messages obtain error class 0 (e.g.: **1001** ⇒ F02D**1001**). The original error and the respective text are displayed in the IndraWorks logbook (e.g.: MC_ReadParameter on S-0-0200; Access to a non-existent parameter).

Display location	Message content
L25/L45/L65 display C-0-0627	F02D1001
Error reaction	Class 0
IW text	Error 1001: ID numbers not available
Help topic on IW_Text	Diagnostics for MLC

Fig.2-12: Example: sercos error message

2.5.6 Command error message

The four-digit command messages are extended to eight digits. All messages obtain error class 0 (e.g.: **0101** ⇒ C028**0101**). The original error and the respective text are displayed in the IndraWorks logbook (C2C-C0101 - Parameter set incomplete/incorrect).

Display location	Message content
L25/L45/L65 display C-0-0627	C0280101
Error reaction	Class 0
IW text	C2C-C0101 - Parameter set incomplete/incorrect
Help topic on IW_Text	Diagnostics for MLC

Fig.2-13: Example: Command error message

2.5.7 User Diagnostics, Transfer of Diagnostics from the PLC Program to the Logbook

The following functions are available in the "ML_Base_xxx_yyy" library which can be used to

initiate a diagnostic entry in the logbook of the control and
to generate an error reaction according to the error class.

ML_SetAxisDiagEntry

The function "ML_SetAxisDiagEntry" triggers an entry in the control logbook. At the same time, the diagnostics appears on the control display.

The diagnostics can be a message or a warning, with both types being independent of the class without error reaction.

In case of errors, the system additionally triggers an [Error Reaction, page 43](#), according to the error class.

Depending on the error class, the axis (drive) referenced via the "Axis" input is affected as follows:

Possible error classes

- F03B....: Non-fatal error, no error reaction,
- F13B....: Axis group error, deceleration to standstill of the axis and all other axes belonging to the axis group,

General Information on the XLC/MLC Diagnostic System

- F23B..../F33B..../F43B.....: Axis error, the referenced axis is decelerated the best possible,
- F53B..../F63B..../F73B.....: Control error, **all** axes are decelerated the best possible,
- F83B.....: Fatal control error, **all** axes are decelerated the best possible.



The function may **not** be called cyclically in the PLC program, as an entry is made in the logbook with every call and it overflows!

ML_SetDiagEntry

The function "ML_SetDiagEntry" triggers an entry in the control logbook. At the same time, the diagnostics appears on the control display.

The diagnostics can be a message or a warning, with both types being independent of the class without error reaction.

In case of errors, the system additionally triggers an [Error Reaction, page 43](#), according to the error class.

Meaningful error classes

- F03B.....: Non-fatal error, no error reaction,
- F53B..../F63B..../F73B.....: Control error, **all** axes are decelerated the best possible,
- F83B.....: Fatal control error, **all** axes are decelerated the best possible.



The function may **not** be called cyclically in the PLC program, as an entry is made in the logbook with every call and it overflows!

2.6 Overview: XLC/MLC Diagnostic Parameters

The following parameters are used for diagnostic purposes:

Device status

C-0-0010, Version number, hardware
C-0-0012, Version number, firmware
C-0-0023, System status
C-0-0030, Control name
C-0-0031, Control address
C-0-0050, System time
C-0-0203, Engineering, user name
C-0-0626, Diagnostics

Extended device status

C-0-0010, Version number, hardware
C-0-0011, Version number, PLC firmware
C-0-0012, Version number, firmware
C-0-0013, Version number, BSP
C-0-0015, Version number, technology functions
C-0-0016, Version number, extended technology functions
C-0-0021, Hardware, details

General Information on the XLC/MLC Diagnostic System

C-0-0022, Local bus, configuration
C-0-0023, System status
C-0-0032, Serial number of control

Axis status

A-0-0002, Axis name
A-0-0020, Axis diagnostic message
A-0-0021, Axis status
A-0-0022, Extended axis status
A-0-0023, Axis diagnostic number
A-0-0100, Actual position value
S-0-0095, Diagnostics
S-0-0390, Diagnostic number

Clearing an Error

A-0-1030, Command: Clear all axis errors
C-0-1030, Command: Clear all control errors

Error/diagnostic memory

C-0-0620, Diagnostic memory index
C-0-0621, Diagnostics, indexed message
C-0-0622, Diagnostics, number of messages in the memory
C-0-0623, Diagnostics, last reset message
C-0-0624, Diagnostics, absolute indices
C-0-0625, Diagnostics, display message
C-0-0626, Diagnostics
C-0-0627, Diagnostic number
C-0-0650, Diagnostics, status word
C-0-0660, Display, display period of messages

Invalid Parameters

C-0-0111, List of all invalid C-parameters
C-0-0626, Diagnostics
and the parameters required for each axis
A-0-0011, List of all invalid A-parameters
A-0-0014, List of incorrect synchronized A-parameters

General Information on the XLC/MLC Diagnostic System

and the parameters required for each real axis and for each encoder axis

S-0-0021, IDN list of invalid operating data for phase 2

S-0-0022, IDN list of invalid operating data for phase 3

S-0-0390, Diagnostic number

Cycle times

C-0-0400, Motion, cycle time, command value

C-0-0503, sercos master, cycle time

C-0-0410, Motion, cycle time (Tcyc), actual value

C-0-0412, List of current time slot measurements

C-0-0413, List of maximum time slot measurements

C-0-0414, List of minimum time slot measurements

C-0-0420, Motion, watchdog sensitivity

C-0-0421, Motion, absolute error counter

C-0-0422, Motion, number of successive errors

C-0-1050, Command: Reset parameter C-0-0413 and C-0-0414

C-0-1052, Command: Reset parameter C-0-0421 and C-0-0422

3 MLC_TABLE Diagnostics

3.1 Diagnostics on Errors Impeding Control Startup

3.1.1 Diagnostics on Errors Impeding Control Startup, General Information

A successful control startup can be impeded due to different reasons, but one of the following messages is then output on the control display:

Diagnostic you might be able to (partially) troubleshoot yourself:

- [UNSUPPHW, page 55](#), Firmware version on the CF card does not support the hardware
- [ERROR_IP, page 55](#), IP address already used in the network

Further diagnostics the support helps you to troubleshoot

- STARTERR
- BSP_ERR
- SPSMGERR
- ErrBSP
- ErrHwChg
- ErrFMCfg
- ErrArch

For the error analysis, send the file "BootLog.dat" stored on the user partition.

3.1.2 UNSUPPHW

The firmware version on the CF card does not support this hardware.

Thus, the control startup is canceled.

Plug in a CF card with a firmware version released for this hardware.

3.1.3 ERROR_IP

It was detected that the IP address is already used in the network.

Cause:	Remedy:
The IP of the Engineering interface is already in the network.	Change the IP address of the control (C-0-0200) or the IP address of another device in the network.
The control is located in the C2C link and the parameter "C-0-0031, Control address" is set to the same on both controls.	Change the parameter "C-0-0031 Control address" on a control.

For more information on this topic, refer to IP Communication.

3.2 Messages

3.2.1 Messages, General Information

A message consists of an 8-digit diagnostic number and a diagnostic text in several languages and, for some selected messages, also a plain language text displayed instead of the diagnostic number.

The first character of the diagnostic number in a message is an "A", followed by a "0".

MLC_TABLE Diagnostics

3.2.2 A00B0005, Drive message

Display: A00B0005

System message

A drive can trigger a message as an alternative to an error or a warning.

The message is a one-time process that is not acknowledged.

A message is detected at "C-0-0500, sercos Master, configuration, bit 0", and "C-0-0023, System status, bit 24", and the message bit is set in each case.

Cause: A minimum of one drive has issued a message.

Remedy: Relevant Online Help is available with own-production drives. With external drives, please use the documentation for the drive.

3.2.3 A00B0007, sercos driver: ZeroBit, Test mode, Zero bit stream

Display: ZeroBit

System message

"Zero bit stream" test mode for the drive interface sercos interface was selected in parameter (C-0-0500).

Cause: Test mode was selected in parameter "C-0-0500, sercos Master, configuration".

Remedy: Modify parameter "C-0-0500, sercos Master, configuration" accordingly.

3.2.4 A00B0008, sercos driver: LightOn, Test mode, Continuous light on

Display: LightOn

System message

Test mode "Continuous light on" for the drive interface sercos interface was selected in parameter (C-0-0500).

Cause: Test mode was selected in parameter "C-0-0500, sercos Master, configuration".

Remedy: Modify parameter "C-0-0500, sercos Master, configuration" accordingly.

3.2.5 A00B0009, sercos driver: LightOff, Test mode, Continuous light off

Display: LightOff

System message

Test mode "Continuous light off" for the drive interface sercos interface was selected in parameter (C-0-0500).

Cause: Test mode was selected in parameter "C-0-0500, sercos Master, configuration".

Remedy: Modify parameter "C-0-0500, sercos Master, configuration" accordingly.

3.2.6 A00B0020, Hardware initialization, don't switch off the control

Display: HW- INIT

System message

The onboard sercos III FPGA is updated. The power supply of the control may not be switched off during the update.

Cause: The firmware used requires a newer version of the sercos III FPGA. This is executed only once after the exchange of firmware or hardware.

3.2.7 A00B0161, Set point transfer error

Display: A00B0161

System message

Error in cyclic data transfer.

Cause: The command values in the MDT telegrams could not be consistently transferred to the slaves.

Remedy: Increase sercos cycle time.

If the error cannot be corrected, please contact the customer service.

3.2.8 A00C0001, BOOT END, boot up of control finished

Display: BOOT END

System message

Boot up of the control has been successfully completed. There is a switch-over to target startup phase "C-0-0450, Motion, startup target mode".

3.2.9 A00C0002, ErrClear, error cleared

Display: ErrClear

System message

The command to clear the error has been successfully executed.

Depending on whether the cause of the error still exists or not, an active error transfers to

- Passive error, the cause still exists,
- Error reset, the cause no longer exists.

3.2.10 A00C0003, BOOTWAIT, startup delay active

Display: BOOTWAIT

System message

The control startup is delayed by the value specified in parameter "C-0-0060, Startup delay time".

3.2.11 A00D0001, Warning

Display: A00D0001

System message

The runtime system of the PLC has output a warning. It is displayed in a dialog box.

Cause: See dialog box.

Remedy: See dialog box.

3.2.12 A00D0002, Info

Display: A00D0002

System message

The runtime system of the PLC has output a warning. It is displayed in a dialog box.

Cause: See dialog box.

Remedy: See dialog box.

3.2.13 A00D0010, PLC user task watchdog expired

Display: A00D0010

System message

The software watchdog of the IEC-Task is expired.

Cause: The IEC-Task was not finished within the defined time.

Remedy: Increase the task cycletime or reduce the IEC-Program(s) of the affected IEC-Task.

3.2.14 A00D0011, Hardware watchdog expired

Display: A00D0011

System message

The hardware watchdog is expired.

Cause: The hardware watchdog is expired.

Remedy: Switch off/on the control. If the error appears again, please inform the customer service.

3.2.15 A00D0012, Bus error

Display: A00D0012

System message

MLC_TABLE Diagnostics

Cause: In the IEC program there was an access to an invalid address.

Remedy: You can find more information in the call-up tree.

3.2.16 A00D0013, Checksum error

Display: A00D0013 System message

Error regarding the checksum after program download.

Cause: This error may be caused by

- a faulty data transfer or
- a corrupt file system.

Remedy: Please repeat the download.

3.2.17 A00D0014, Field bus error

Display: A00D0014 System message

This error may have several reasons. These are indicated by the error text in the IndraLogic-Programming user interface.

Cause:	Remedy:
"Error loading IO drivers!": At least one configured IO-Driver could not be loaded.	Inform the customer service.
"Error init IO-Driver!"	Inform the customer service.
"Error in Configuration Data!"	Inform the customer service.

3.2.18 A00D0015, Error while I/O update

Display: A00D0015 System message

I/O-Update aborted.

Cause: A fieldbus driver causes an internal error.

Remedy: Please check whether configured and not configured IOs are applied in the project and the address test is switched off. Turn on address test if necessary.

3.2.19 A00D0016, Cycletime exceeded

Display: A00D0016 System message

This error does not appear in the current runtime.

Cause: -

Remedy: -

3.2.20 A00D0017, Not enough memory

Display: A00D0017 System message

Online-Change-Code is too big.

Cause: With online changes the memory space in the control is limited.

Remedy: Please repeat the download.

3.2.21 A00D0018, Online change not possible

Display: A00D0018 System message

Cause: The references of an external library could not be unresolved.

Remedy: Ensure that the installed target and the firmware of the control used fit.

3.2.22 A00D0019, Not enough memory

Display: A00D0019

System message

Cause: The program download has been denied by a customer-specific adaption.

Remedy: Follow the instructions in the dialog box.

3.2.23 A00D001A, Boot project not loaded, retain variables not relocatable

Display: A00D001A

System message

Cause: The boot project could not be load because the retain-variables could not be reset.

Remedy: Please restart the control. Should the error appear again, please inform the customer service.

3.2.24 A00D001B, Boot project not loaded and deleted

Display: A00D001B

System message

Cause: Possibly the file system is corrupt.

Remedy: Please create a new boot project and load it into the control.

3.2.25 A00D001C, System memory very low (memory leak)

Display: A00D001C

System message

Cause: Because of a memory leak the available system memory is very low.

Remedy: Please reboot the control.

3.2.26 A00D001D, Retain memory corrupt or cannot be mapped

Display: A00D001D

System message

Cause: The retain memory is corrupt or it cannot be mapped.

Remedy: Please call the customer service.

3.2.27 A00D001E, Boot project that could be loaded but caused a crash later

Display: A00D001E

System message

The boot project could be loaded but caused a system crash later.

Cause: The application is incorrect.

Remedy: Remove the error in the application and then create a new boot project.

3.2.28 A00D001F, Not enough memory for target visu

Display: A00D001F

System message

Cause: Not enough memory available for the target visualization.

Remedy: No text available.

3.2.29 A00D0020, Not enough memory for configuration

Display: A00D0020

System message

Cause: There is not enough memory available for the configuration.

Remedy: No text available.

3.2.30 A00D0021, Target ID (bootproject) doesn't match the current target

Display: A00D0021

System message

Cause: The target system settings of the boot projects does not match the current target system.

MLC_TABLE Diagnostics

Remedy: Please adjust a matching target system.

3.2.31 A00D0022, Error at scheduling tasks

Display: A00D0022

System message

Cause: An error occurred in the task scheduler.

Remedy: Reboot your system and inform the customer service if the error appears again.

3.2.32 A00D0023, Checksum error at transfer of file

Display: A00D0023

System message

Cause: Either a file transfer error appeared or the file system is corrupt.

Remedy: Transfer the file again. If the error appears again please inform the customer service.

3.2.33 A00D0024, Retain identity does not match to bootproject identity

Display: A00D0024

System message

Cause: The identification of the Retain-Data does not match the identification of the boot project.

Remedy: Transfer the file again. If the error appears again please inform the customer service.

3.2.34 A00D0025, Task could not be created

Display: A00D0025

System message

Cause: With the creation of an IEC-Task an error appeared.

Remedy: Transfer or load your PLC-Program a new. Should the error appear again, please inform the customer service.

3.2.35 A00D0026, Task could not be stopped

Display: A00D0026

System message

Cause: While stopping the PLC the IEC-Task could not be stopped within a specified timeout and was suspended therefore.

Remedy: Should the error appear again, please inform the customer service.

3.2.36 A00D0050, Illegal instruction

Display: A00D0050

System message

Cause: The programming system has generated a faulty compilation.

Remedy: Please send the archive file to the customer service.

3.2.37 A00D0051, Access violation

Display: A00D0051

System message

Cause: There was an access to an invalid memory range.

Remedy: Please check your PLC-Program on use of pointer and array accesses. If necessary include the library RIL_CheckRtv.Lib.



This library needs runtime so that the cycletime increases. Further informations are contained in the description of this library.

3.2.38 A00D0052, Privileged instruction

Display: A00D0052

System message

Cause: The programming system has generated a faulty compilation.

Remedy: Please send the archive file to the customer service.

3.2.39 A00D0053, Page fault

Display: A00D0053 System message

Cause: The programming system has generated a faulty compilation.

Remedy: Please send the archive file to the customer service.

3.2.40 A00D0054, Stack overflow

Display: A00D0054 System message

Cause: The programming system has generated a faulty compilation.

Remedy: Please send the archive file to the customer service.

3.2.41 A00D0055, Invalid disposition

Display: A00D0055 System message

Cause: The programming system has generated a faulty compilation.

Remedy: Please send the archive file to the customer service.

3.2.42 A00D0056, Invalid handle

Display: A00D0056 System message

Cause: The programming system has generated a faulty compilation.

Remedy: Please send the archive file to the customer service.

3.2.43 A00D0057, Access on guarded page

Display: A00D0057 System message

Cause: The programming system has generated a faulty compilation.

Remedy: Please send the archive file to the customer service.

3.2.44 A00D0058, Double fault

Display: A00D0058 System message

Cause: The programming system has generated a faulty compilation.

Remedy: Please send the archive file to the customer service.

3.2.45 A00D0059, Invalid Opcode

Display: A00D0059 System message

Cause: The programming system has generated a faulty compilation.

Remedy: Please send the archive file to the customer service.

3.2.46 A00D0100, Access on odd address

Display: A00D0100 System message

Cause: Access using the pointer was made to an unauthorized address.

Solution: Check the PLC program regarding the use of pointers. Possibly integrate the library RIL_CheckRtv.Lib.



This library requires runtime so that the cycle time of the tasks increases. Further information can be found in the description of this library.

MLC_TABLE Diagnostics

3.2.47 A00D0101, Array bounds exceeded

Display: A00D0101

System message

Cause: The index of an array has been exceeded.**Solution:** Check the PLC program regarding the use of array accesses. Possibly integrate the library RIL_CheckRtv.Lib.

This library requires runtime so that the cycle time of the tasks increases. Further information can be found in the description of this library.

3.2.48 A00D0102, Division by zero

Display: A00D0102

System message

Cause: A division has been programmed by zero in the PLC program.**Solution:** Check the PLC program regarding the division. Possibly integrate the library RIL_CheckRtv.Lib.

This library requires runtime so that the cycle time of the tasks increases. Further information can be found in the description of this library.

3.2.49 A00D0103, Overflow

Display: A00D0103

System message

Cause: The programming system has generated an incorrect compilation.**Solution:** Please send the archive file to customer service.

3.2.50 A00D0104, Non continuable exception

Display: A00D0104

System message

Cause: The programming system has generated an incorrect compilation.**Solution:** Please send the archive file to customer service.

3.2.51 A00D0150, FPU, Unspecified error

Display: A00D0150

System message

Cause: The programming system has generated a faulty compilation.**Remedy:** Please send the archive file to the customer service.

3.2.52 A00D0151, FPU, Denormal operand

Display: A00D0151

System message

Cause: The programming system has generated a faulty compilation.**Remedy:** Please send the archive file to the customer service.

3.2.53 A00D0152, FPU, Division by zero

Display: A00D0152

System message

Cause: In the IEC-Program a division by zero ((L)REAL) was executed.**Remedy:** Please check your PLC-Program on a division by zero (Type (L)REAL). If necessary include the library RIL_CheckRtv.Lib.

This library needs runtime so that the cycletime increases. Further informations are contained in the description of this library.

3.2.54 A00D0153, FPU, Inexact result

Display: A00D0153

System message

Cause: The programming system has generated a faulty compilation.

Remedy: Please send the archive file to the customer service.

3.2.55 A00D0154, FPU, Invalid operation

Display: A00D0154

System message

Cause: The programming system has generated a faulty compilation.

Remedy: Please send the archive file to the customer service.

3.2.56 A00D0155, FPU, Overflow

Display: A00D0155

System message

Cause: The programming system has generated a faulty compilation.

Remedy: Please send the archive file to the customer service.

3.2.57 A00D0156, FPU, Stack check failed

Display: A00D0156

System message

Cause: The programming system has generated a faulty compilation.

Remedy: Please send the archive file to the customer service.

3.2.58 A00D0157, FPU, Underflow

Display: A00D0157

System message

Cause: The programming system has generated a faulty compilation.

Remedy: Please send the archive file to the customer service.

3.2.59 A00D0158, Specific diagnosis of node

Display: A00D0158

System message

Cause: The programming system has generated a faulty compilation.

Remedy: Please send the archive file to the customer service.

3.2.60 A00D07D0, Fatal error: Communication

Display: A00D07D0

System message

Cause: A fatal error occurred in the communication.

Remedy: Switch off/on the control. If this error appears again, please inform the customer service.

3.2.61 A00D07D1, Fatal error: Semaphores

Display: A00D07D1

System message

Cause: An error occurred in the semaphore administration.

Remedy: Switch off/on the control. If this error appears again, please inform the customer service.

3.2.62 A00D07D2, Fatal error: Memory management

Display: A00D07D2

System message

Cause: An error occurred in the memory administration.

Remedy: Switch off/on the control. If this error appears again, please inform the customer service.

MLC_TABLE Diagnostics

3.2.63 A00D07D3, Rexroth-Inline configuration mismatch from node

Display: A00D07D3

System message

The projected configuration with IndraWorks does not match the actual configuration of a fieldbus.

If the program is loaded in IndraLogic, the programming user interface displays the corresponding fieldbus.

Cause:	Remedy:
The projected configuration in IndraWorks is incorrect.	Correct the projected configuration of the Inline-IO-Bus and load it into the control.
Wrong Inline-Modules are plugged to the control.	Switch off the control and plug the correct Inline-Modules to the control.

3.2.64 A00D07D4, File not written ()

Display: A00D07D4

System message

A file could not be written.

The error window that appears in the programming user interface IndraLogic indicates the name of the file which could not be written.

Cause:	Remedy:
The memory card is full.	Delete not used files on the memory card.

3.2.65 A00D07E3, PLC can not be started with pending error - RESET

Display: A00D07E3

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the runtime of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

Cause: Restarting the PLC project requires the PLC to be reset. This error is generated if an attempt is made to start the PLC instead of resetting the control.



A renewed attempt to restart the PLC without reset is rejected with runtime error 2039 and the same error text.

Error message 2019 (or 16#7E3) and 2039 (or 16#7F7) alternate, providing no further error message occurs.

Solution: Please reset the control. Restart the PLC.

3.2.66 A00D07E4, Array lower bounds violation - RESET

Display: A00D07E4

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the runtime of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: An array is accessed by an unauthorized small index.

Program:

```
Declaration:
x: BOOL;
  Fehlerarray: Array [1..100] of BOOL;
Implementation:
  LD x
  ST Fehlerarray[0];
```

Solution: Reset the control. Restart the PLC once you have amended your PLC project.

3.2.67 A00D07E5, Array upper bounds violation - RESET

Display: A00D07E5

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: An array is accessed by an unauthorized large index.

Program:

```
Declaration:
  x: BOOL;
  Fehlerarray: Array [1..100] of BOOL;
Implementation:
  LD x
  ST Fehlerarray[101];
```

Solution: Reset the control. Restart the PLC once you have amended your PLC project.

3.2.68 A00D07E6, Division (8bit) by zero - RESET

Display: A00D07E6

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the division, an 8-bit variable was divided by 0.

Solution: Reset the control. Restart the PLC once you have amended your PLC project.

3.2.69 A00D07E7, Division (16bit) by zero - RESET

Display: A00D07E7

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

MLC_TABLE Diagnostics

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the division, a 16-bit variable was divided by 0.

Solution: Reset the control. Restart the PLC once you have amended your PLC project.

3.2.70 A00D07E8, Division (32bit) by zero - RESET

Display: A00D07E8

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the division, a 32-bit variable was divided by 0.

Solution: Reset the control. Restart the PLC once you have amended your PLC project.

3.2.71 A00D07E9, Division (REAL) by zero - RESET

Display: A00D07E9

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the division, a REAL variable was divided by 0.

Solution: Reset the control. Restart the PLC once you have amended your PLC project.

3.2.72 A00D07EA, Lower range bounds (unsigned) violation - RESET

Display: A00D07EA

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: A value smaller than the lower limit has been assigned to a variable declared as a sub-range type.

Program:

```
Declaration:
    ui1 : UINT (10..20);
Implementation:
    LD 5
    ST ui1
```

Solution: Reset the control. Restart the PLC once you have amended your PLC project.

3.2.73 A00D07EB, Upper range bounds (unsigned) violation - RESET

Display: A00D07EB

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: A value greater than the upper range limit has been assigned to a variable declared as a sub-range type (unsigned).

Program:

```
Declaration:
  ui1 : UINT (5...20);
Implementation:
  LD 100
  ST ui1
```

Solution: Reset the control. Restart the PLC once you have amended your PLC project.

3.2.74 A00D07EC, Lower range bounds (signed) violation - RESET

Display: A00D07EC

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: A value smaller than the lower range limit has been assigned to a variable declared as a sub-range type (signed).

Program:

```
Declaration:
  i1 : INT (5...20);
Implementation:
  LD 1
  ST i1
```

Solution: Reset the control. Restart the PLC once you have amended your PLC project.

3.2.75 A00D07ED, Upper range bounds (signed) violation - RESET

Display: A00D07ED

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

MLC_TABLE Diagnostics

The network that follows the network causing the error is displayed in the call stack menu.

Cause: A value greater than the upper range limit has been assigned to a variable declared as a sub-range type (signed).

Program:

```
Declaration:
    i1 : INT (5...20);
Implementation:
    LD 100
    ST i1
```

Solution: Reset the control. Restart the PLC once you have amended your PLC project.

3.2.76 A00D07EE, Division (LREAL) by zero - RESET

Display: A00D07EE

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the division, an LREAL variable has been divided by 0.

Solution: Reset the control and restart the PLC once you have amended your PLC project.

3.2.77 A00D07EF, Invalid pointer access (address) - RESET

Display: A00D07EF

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the PLC project, an attempt was made by a pointer to access a variable, whereby the access was outside of the valid PLC memory range.

Solution: Reset the control. Restart the PLC once you have amended your PLC project.

3.2.78 A00D07F0, Invalid pointer access (area) - RESET

Display: A00D07F0

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the PLC project, an attempt was made by a pointer to access a variable, whereby the access was outside of the memory range reserved for this variable.

Solution: Please reset the control. Restart the PLC once you have amended your PLC project.

3.2.79 A00D07F1, Invalid pointer access (Write access on input) - RESET

Display: A00D07F1

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the runtime of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the PLC project, a pointer has tried to write to an input variable.

Program:

```
Declaration:
var_in AT %IB0: BYTE;
ptr_var_in: POINTER TO BYTE;
Implementation:
ptr_var_in := ADR(var_in);
ptr_var_in^:=16#AA;
```

Solution: Reset the control. Restart the PLC once you have amended your PLC project.

3.2.80 A00D07F2, Invalid pointer access (Alignment) - RESET

Display: A00D07F2

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the runtime of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the PLC project, a pointer has attempted to access a variable and the alignment is not consistent.

Solution: Please reset the control. Restart the PLC once you have amended your PLC project.

3.2.81 A00D07F7, PLC can not be started with pending error - RESET

Display: A00D07F7

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the runtime of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

Cause: Restarting the PLC project requires the PLC to be reset. This error is generated if an attempt is made to start the PLC instead of resetting the control.

MLC_TABLE Diagnostics



A renewed attempt to restart the PLC without reset is rejected with runtime error 2019 and the same error text. Error message 2019 (or 16#7E3) and 2039 (or 16#7F7) alternate, providing no further error message occurs.

Solution: Please reset the control. Restart the PLC.

3.2.82 A00D07F8, Array lower bounds violation - Index modified to MIN!

Display: A00D07F8

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the runtime of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: An attempt was made to access an array with an unauthorized small index.

Program:

```
Declaration:
  x: BOOL;
  Fehlerarray: Array [1..100] of BOOL;
Implementation:
  LD x
  ST Fehlerarray[0];
```

The index was corrected to the minimum permissible index.

Solution: Please amend your PLC project.

3.2.83 A00D07F9, Array upper bounds violation - Index modified to MAX!

Display: A00D07F9

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the runtime of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: An array is accessed by an unauthorized large index.

Program:

```
Declaration:
  x: BOOL;
  Fehlerarray: Array [1..100] of BOOL;
Implementation:
  LD x
  ST Fehlerarray[200];
```

The index was corrected to the maximum permissible index.

Solution: Please amend your PLC project.

3.2.84 A00D07FA, Division (8bit) by zero - Divisor modified to 1!

Display: A00D07FA

System message

MLC_TABLE Diagnostics

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the division, an 8-bit variable is to be divided by 0. The divisor was corrected to the value 1.

Solution: Please amend your PLC project.

3.2.85 A00D07FB, Division (16bit) by zero - Divisor modified to 1!

Display: A00D07FB

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the division, a 16-bit variable is to be divided by 0. The divisor was corrected to the value 1.

Solution: Please amend your PLC project.

3.2.86 A00D07FC, Division (32bit) by zero - Divisor modified to 1!

Display: A00D07FC

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the division, a 32-bit variable is to be divided by 0. The divisor was corrected to the value 1.

Solution: Please amend your PLC project.

3.2.87 A00D07FD, Division (REAL) by zero - Divisor modified to 1.0!

Display: A00D07FD

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the division, a REAL variable is to be divided by 0. The divisor was corrected to the value 1.0.

Solution: Please amend your PLC project.

MLC_TABLE Diagnostics

3.2.88 A00D07FE, Lower range bounds (unsigned) violation - Value to MIN!

Display: A00D07FE

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: A value smaller than the lower range limit is to be assigned to a variable declared as a sub-range type.

Program:

```
Declaration:
    ui1: UINT (10..20);
Implementation:
    LD 5
    ST ui1
```

The value of the variable ui1 was corrected to the minimum permitted value.

Solution: Please amend your PLC project.

3.2.89 A00D07FF, Upper range bounds (unsigned) violation - Value to MAX!

Display: A00D07FF

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: A value greater than the upper range limit is to be assigned to a variable declared as a sub-range type (unsigned).

Program:

```
Declaration:
    ui1 : UINT (5...20);
Implementation:
    LD 100
    ST ui1
```

The value of the variable ui1 was corrected to the maximum permitted value.

Solution: Please amend your PLC project.

3.2.90 A00D0800, Lower range bounds (signed) violation - Value to MIN!

Display: A00D0800

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

MLC_TABLE Diagnostics

Cause: A value smaller than the lower range limit is to be assigned to a variable declared as a sub-range type (signed).

Program:

```
Declaration:
  i1 : INT (5...20);
Implementation:
  LD 1
  ST i1
```

The value of the variable ui1 was corrected to the minimum permitted value.

Solution: Please amend your PLC project.

3.2.91 A00D0801, Upper range bounds (signed) violation - Value to MAX!

Display: A00D0801

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: A value greater than the upper range limit is to be assigned to a variable declared as a sub-range type (signed).

Program:

```
Declaration:
  i1 : INT (5...20);
Implementation:
  LD 100
  ST i1
```

The value of the variable ui1 was corrected to the maximum permitted value.

Solution: Please amend your PLC project.

3.2.92 A00D0802, Division (LREAL) by zero - Divisor modified to 1.0!

Display: A00D0802

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the division, an LREAL variable is to be divided by 0. The divisor was corrected to the value 1.0.

Solution: Please amend your PLC project.

3.2.93 A00D0803, Invalid pointer access (address) - Pointer to dummy!

Display: A00D0803

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

MLC_TABLE Diagnostics

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the PLC project, an attempt was made by a pointer to access a variable, whereby the access is outside of the valid PLC memory range.

The pointer accessed a dummy variable.

Solution: Please amend your PLC project.

3.2.94 A00D0804, Invalid pointer access (area) - Pointer to dummy!

Display: A00D0804

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the PLC project, a pointer has tried to access a variable. Access would have been outside of the memory range reserved for this variable.

The pointer accessed a dummy variable.

Solution: Please amend your PLC project.

3.2.95 A00D0805, Invalid pointer access (write on input)- Pointer to dummy!

Display: A00D0805

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the PLC project, a pointer has tried to write to an input variable.

Program:

```
Declaration:
    var_in AT %IB0: BYTE;
    ptr_var_in: POINTER TO BYTE;
Implementation:
    ptr_var_in:= ADR(var_in);
    ptr_var_in^:= 16#AA;
```

The pointer access was corrected to a dummy variable.

Solution: Please amend your PLC project.

3.2.96 A00D0806, Invalid pointer access (alignment) - Pointer to dummy!

Display: A00D0806

System message

Integration of the library RIL_CheckRtv.lib has detected an error in the run-time of the PLC project and stopped the PLC.

MLC_TABLE Diagnostics

The error that has occurred is specified by an error message in the IndraLogic programming interface and can be localized by menu item "Call stack menu" providing the "Debugging" compilation option is enabled.

The network that follows the network causing the error is displayed in the call stack menu.

Cause: In the PLC project, a pointer is to try to access a variable and the alignment is not consistent.

Access was to a dummy variable.

Solution: Please amend the PLC project.

3.2.97 A00D0807, Identification PROFINET device

Display: PN_IDENT

System message

A PROFINET IO-Controller identified the control as PROFINET IO-Device.

Solution: The text display in the display of the control remains present until the identification is completed.

The display is also deleted if further entries are made in the diagnostic memory of the control.

3.2.98 A00D1200, WriteParameter, data type not supported by POU

Display: A00D1200

System message

The error was generated by one of the following function blocks. The type of parameter (list or individual parameter) or the type (REAL, DINT) is not consistent with the input of the function block.

Cause: The access error occurs when writing a parameter date if the wrong function block has been selected.

Solution: Check the function block type in accordance with your required parameters.

Writing parameters:

	DINT	REAL	List of parameters
MB_WriteParameter	X		
MB_WriteRealParameter		X	
MB_WriteListParameter			X

3.2.99 A00D1201, WriteParameter, data type not supported by POU

Display: A00D1201

System message

The error was generated by one of the following function blocks. The type of parameter (list or individual parameter) or the type (REAL, DINT) is not consistent with the input of the function block.

Cause: The access error occurs when writing a parameter date if the wrong function block has been selected.

Solution: Check the function block type in accordance with your required parameters.

Writing parameters:

	DINT	REAL	List of parameters
MB_WriteParameter	X		
MB_WriteRealParameter		X	
MB_WriteListParameter			X

MLC_TABLE Diagnostics

3.2.100 A00D1202, WriteParameter, data type not supported by POU

Display: A00D1202

System message

The error was generated by one of the following function blocks. The type of parameter (list or individual parameter) or the type (REAL, DINT) is not consistent with the input of the function block.

Cause: The access error occurs when writing a parameter data if the wrong function block has been selected.

Solution: Check the function block type in accordance with your required parameters.

Writing parameters:

	DINT	REAL	List of parameters
MB_WriteParameter	X		
MB_WriteRealParameter		X	
MB_WriteListParameter			X

3.2.101 A00D1203, WriteParameter, data type not supported by POU

Display: A00D1203

System message

The error was generated by one of the following function blocks. The type of parameter (list or individual parameter) or the type (REAL, DINT) is not consistent with the input of the function block.

Cause: The access error occurs when writing a parameter data if the wrong function block has been selected.

Solution: Check the function block type in accordance with your required parameters.

Writing parameters:

	DINT	REAL	List of parameters
MB_WriteParameter	X		
MB_WriteRealParameter		X	
MB_WriteListParameter			X

3.2.102 A00D1204, WriteParameter, data type not supported by POU

Display: A00D1204

System message

The error was generated by one of the following function blocks. The type of parameter (list or individual parameter) or the type (REAL, DINT) is not consistent with the input of the function block.

Cause: The access error occurs when writing a parameter data if the wrong function block has been selected.

Solution: Check the function block type in accordance with your required parameters.

Writing parameters:

	DINT	REAL	List of parameters
MB_WriteParameter	X		
MB_WriteRealParameter		X	
MB_WriteListParameter			X

3.2.103 A00D2EE4, Module error Inline bus goes

Display: A00D2EE4

System message

At the Inlinebus of the control a queuing module error has been deleted again or has disappeared.

So, e.g., a short circuit in an output module can have caused a module error which has disappeared now, however, again.

3.2.104 A00E0001, No entry found in data base

Display: A00E0001

System message

The data base contains no information to the actual diagnosis number.

Remedy: Please contact the service.

3.2.105 A00E0002, OK

Display: A00E0002

System message

The message contains the standard information for an error-free working axis.

3.2.106 A0110001, Axis has been removed

Display: A0110001

System message

The axis was removed by the control firmware.

3.2.107 A0110002, Axis has been created

Display: A0110002

System message

The axis was recreated by the control firmware.

3.2.108 A0200001, P0 STOP, reached phase 0, PLC in stop

Display: P0 STOP

System message

The Motion is in phase 0, the PLC in "Stop" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is stopped.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be started using IndraWorks.

3.2.109 A0200002, P1 STOP, reached phase 1, PLC in stop

Display: P1 STOP

System message

The Motion is in phase 1, the PLC in "Stop" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is stopped.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be started using IndraWorks.

3.2.110 A0200003, P2 STOP, reached phase 2, PLC in stop

Display: P2 STOP

System message

The Motion is in phase 2, the PLC in "Stop" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is stopped.

MLC_TABLE Diagnostics

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be started using IndraWorks.

3.2.111 A0200004, P3 STOP, reached phase 3, PLC in stop

Display: P3 STOP System message

The Motion is in phase 3, the PLC in "Stop" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is stopped.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be started using IndraWorks.

3.2.112 A0200005, BB STOP, Motion ready, PLC in stop

Display: BB STOP System message

The Motion is ready, the PLC is in "Stop" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is stopped.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be started using IndraWorks.

3.2.113 A0200006, P0 RUN, reached phase 0, PLC in run

Display: P0 RUN System message

The Motion is in phase 0, the PLC is in "Run" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is started.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be stopped using IndraWorks.

3.2.114 A0200007, P1 RUN, reached phase 1, PLC in run

Display: P1 RUN System message

The Motion is in phase 1, the PLC is in "Run" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is started.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be stopped using IndraWorks.

3.2.115 A0200008, P2 RUN, reached phase 2, PLC in run

Display: P2 RUN System message

The Motion is in phase 2, the PLC is in "Run" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is started.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be stopped using IndraWorks.

3.2.116 A0200009, P3 RUN, reached phase 3, PLC in run

Display: P3 RUN System message

The Motion is in phase 3, the PLC is in "Run" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is started.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be stopped using IndraWorks.

3.2.117 A0200010, BB RUN, Motion ready, PLC in run

Display: BB RUN

System message

The motion is ready, the PLC is in "Run" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is started.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be stopped using IndraWorks.

3.2.118 A0200011, P0 INIT, reached phase 0, PLC in init

Display: P0 INIT

System message

The Motion is in phase 0, the PLC is in "Init" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is still being initialized.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be started using IndraWorks.

3.2.119 A0200012, P1 INIT, reached phase 1, PLC in init

Display: P1 INIT

System message

The Motion is in phase 1, the PLC is in "Init" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is still being initialized.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be started using IndraWorks.

3.2.120 A0200013, P2 INIT, reached phase 2, PLC in init

Display: P2 INIT

System message

The Motion is in phase 2, the PLC is in "Init" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is still being initialized.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be started using IndraWorks.

3.2.121 A0200014, P3 INIT, reached phase 3, PLC in init

Display: P3 INIT

System message

The Motion is in phase 3, the PLC is in "Init" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is still being initialized.

MLC_TABLE Diagnostics

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be started using IndraWorks.

3.2.122 A0200015, BB INIT, Motion ready, PLC in init

Display: BB INIT System message

The Motion is ready, the PLC is in "Init" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is still being initialized.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be started using IndraWorks.

3.2.123 A0200016, Firmware download successfully finished

Display: A0200016 System message

Firmware download successfully completed.

Cause: The new firmware has been successfully loaded into the control.

The system is ready for reboot. The downloaded firmware will only be enabled with a reboot.

Solution: -

3.2.124 A0200017, Hardware changed; Restoring NVRAM

Display: A0200017 System message

A hardware change took place.

The resulting behavior depends on the control hardware used, however the result is identical.

The following applies to the CML65/45/25 hardware:

The control parameters and the PLC-RETAIN data are only saved on the Compact Flash card (CF) and therefore no longer need synchronization.

This message is only a notification about the hardware change.

Cause: A hardware change has taken place.

Solution: -

3.2.125 A0200018, Restoring NVRAM

Display: A0200018 System message

The NVRAM has been manually restored using parameter C-0-1001.

All of the data saved in the flash and in the NVRAM, as well as values saved internally, for instance axis position, are overwritten with values saved when the command "C-0-1002, Command: store MotionControl parameters in FW module" was executed the last time (refer to the parameter documentation on C-0-1001 or C-0-1002).

A reboot is needed once this command has been executed.

Cause: The NVRAM has been manually restored using parameter C-0-1001.

Solution: -

3.2.126 A0200020, Power cycle of control necessary

Display: PWRCYCLE System message

The system has determined that the control must be restarted. This can happen after a firmware update, for example, when hardware blocks also must

be reinitialized and this can only be done by switching the current supply off and back on.

Cause: A firmware update, for example, after which the hardware must be reinitialized.

Remedy: Switch the control off and back on.

Please contact Customer Support if this message occurs each time the controller starts up.

3.2.127 A0200021, P0 RDY, reached phase 0, PLC in ready

Display: P0 RDY

System message

The Motion is in phase 0, the PLC in "Breakpoint" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is at a breakpoint.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be moved into another status using IndraWorks.

3.2.128 A0200022, P1 RDY, reached phase 1, PLC in ready

Display: P1 RDY

System message

The Motion is in phase 1, the PLC in "Breakpoint" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is at a breakpoint.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be moved into another status using IndraWorks.

3.2.129 A0200023, P2 RDY, reached phase 2, PLC in ready

Display: P2 RDY

System message

The Motion is in phase 2, the PLC in "Breakpoint" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is at a breakpoint.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be moved into another status using IndraWorks.

3.2.130 A0200024, P3 RDY, reached phase 3, PLC in ready

Display: P3 RDY

System message

The Motion is in phase 3, the PLC in "Breakpoint" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is at a breakpoint.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be moved into another status using IndraWorks.

3.2.131 A0200025, BB RDY, Motion ready, PLC in ready

Display: BB RDY

System message

MLC_TABLE Diagnostics

The Motion is ready, the PLC is in "Breakpoint" status.

Cause: The Motion was switched into this mode (e.g. by the parameter "C-0-0450, Motion, startup target mode" or "C-0-0451, Motion target mode". The PLC is at a breakpoint.

Solution: Parameter "C-0-0451, Motion, target mode" can be used for switching into other Motion modes. The PLC can be moved into another status using IndraWorks.

3.2.132 A0200026, Time write-protected because LINK slave

Display: A0200026

System message

The adaptation of the control system time (C-0-0050) failed.

Ursache: In the link, the control is operated as a slave control and automatically accepts the master's control system time (C-0-0050). For this reason, the control system time of the slave control is therefore not writable.

The system times of the link slaves are synchronized to the system time of the master.

3.2.133 A0200027, Finishing download, don't switch off the control

Display: A0200027

System message

The download of the firmware or the archive is completed. During this period, the control may not be switched off since this might result in a storage of inconsistent firmware states and archive states up to the case that the firmware or hardware cannot be operated anymore.

Cause: The new firmware or an archive is loaded into the control.

Remedy: Control is not switched off until the download is completed.

3.2.134 A0200028, PLC runtime incompatible, application invalid

Display: A0200028

System message

During the firmware download the runtime environment for the PLC application might be exchanged. The system checks the compatibility between the runtime of the new firmware and the existing PLC application. If an incompatibility has been detected the existing application will be marked invalid.

Cause: New PLC-runtime is no longer compatible to the existing application.

Remedy: Reload the PLC application with IndraWorks.

3.2.135 A0200030, INIT, PLC in init

Display: INIT

System message

The device is in INIT operating state, i.e. the control is rebooted.

3.2.136 A0200031, RDY, PLC in ready

Display: RDY

System message

The device is in READY operating state, i.e. no valid PLC application is loaded.

3.2.137 A0200032, STOP, PLC in stop

Display: STOP

System message

The device is in STOP operating state, i.e. a valid PLC application is loaded that is in STOP or DEBUG status.

3.2.138 A0200033, RUN, PLC in run

Display: RUN

System message

The device is in RUN operating state, i.e. a valid PLC application is loaded that is in RUN status.

3.2.139 A0290001, Kinematics has been removed

Display: A0290001

System message

The kinematics was removed by the firmware control.

3.2.140 A0290002, Kinematics has been created

Display: A0290002

System message

The kinematics was recreated by the firmware control.

3.2.141 A03A0002, Online change

Display: A03A0002

System message

The message shows the start and the end of an online change.

For details, please refer to the short text.

3.2.142 A03A3001, Messages from DCC-Components

Display: A03A3001

System message

Common message, triggered by company-internal components of IndraLogic 2G.

For details, please refer to the respective short text.

3.3 Warnings

3.3.1 General Information

A warning consists of an 8-digit diagnostic number and a diagnostic text in several languages.

The first character of the diagnostic number of a warning is an "E", followed by a "0".

3.3.2 E000****, Drive Warning with Warning Number E****

Warning in the drive.

Cause: At least one axis/drive issues a warning with the warning number E****.

Solution: The respective online help is available for self-manufactured drives. For third-party drives, use the drive documentation.

See also: [IndraDrive/HydraulicDrive Drive Warnings](#) , page 49

3.3.3 E00B0001, ASIC Error

Display: E00B0001

Non-fatal warning

A non-fatal internal firmware error occurred

Cause: An error occurred in the firmware.

Remedy: Stop the machine in the common way, subsequently switch off/on the machine. If the error still exist, please contact the service.

3.3.4 E00B0005, Drive warning

Display: E00B0005

Non-fatal warning

MLC_TABLE Diagnostics

As an alternative to an error, an axis can trigger a warning (or message) in less critical cases.

The warning is retained independently of the deletion of an error and only disappears once the reason for its occurrence has been eliminated.

A warning is detected at "C-0-0650, Diagnostic, status word, bit 1", and "C-0-0023, System status, bit 25", and the warning bit is set in each case.

Cause: At least one axis / one drive reports a warning.

Solution: Relevant Online Help is available with own-production drives. With external drives, please use the documentation for the drive.

3.3.5 E00C0001, Parameter inconsistent, restorage via C-0-1001

Display: E00C0001

Non-fatal warning

A hardware change has taken place, i.e. the MLC parameters and the PLC RETAIN data saved on the Compact Flash card (CF) differ from the MLC parameters and the PLC RETAIN data saved in the NVRAM of the MLC hardware.

Therefore, the parameter C-0-1001 is automatically executed during the boot up after the hardware has been changed.

All of the data saved in the flash and in the NVRAM, as well as values saved internally, for instance axis position, are overwritten with values saved when the command "C-0-1002, Command: store MotionControl parameters in FW module" was executed the last time



After executing this command, the system will restart automatically to accept the new system data.

Cause: A hardware change has taken place.

Solution: -

3.3.6 E00C0002, Running on unsupported hardware

Display: E00C0002

Non-fatal warning

The control firmware is operated on unsupported hardware. This can lead to unforeseeable system statuses and even to the system crashing with the loss of all parameters and PLC RETAIN data.

Cause: An unsupported hardware is used.

Solution: Please change to supported hardware.

3.3.7 E00C0003, Running on unsupported hardware revision

Display: E00C0003

Non-fatal warning

The control firmware is operated on an unsupported hardware revision (e.g. an HW prototype among others). This can lead to unforeseeable system statuses and even to the system crashing with the loss of all parameters and PLC RETAIN data.

Cause: An unsupported hardware revision is used.

Solution: Please change to a supported hardware revision. Please contact customer service.

3.3.8 E00C0004, Running on unsupported hardware revision

Display: E00C0004

Non-fatal warning

The control firmware is operated on an unsupported hardware revision (e.g. an HW prototype among others) and should only be used without function

MLC_TABLE Diagnostics

modules. The use of function modules on this hardware can lead to unforeseeable system statuses and even to the system crashing with the loss of all parameters and PLC RETAIN data.

Cause: An unsupported hardware revision is used.

Solution: Please change to a supported hardware revision. Please contact customer service.

3.3.9 E00D0004, Acyclic communication active yet

Display: E00D0004

Non-fatal warning

Function in preparation

Cause: -

Remedy: -

3.3.10 E00D1001, Writeaccess to parameter S-0-0000 of UserCmdDataX

Display: E00D1001

Non-fatal warning

There is a write access to parameter (S-0-0000).

Cause: There is a write access in the PLC user program to a not configured, user-defined command value A, B, C or D. If this command value is not configured, it is contained in parameter (S-0-0000).

Remedy: 1. Configure the corresponding user-defined command value in IndraWorks by a valid parameter unequal (S-0-0000).
2. Or remove the access from the PLC-Program.

3.3.11 E00D1002, Unknown PLC system task

Display: E00D1002

Non-fatal warning

This diagnostics is only used for internal purposes. Contact customer support.

3.3.12 E00D2EE0, Nonconforming Inline IO Configuration

Display: E00D2EE0

Non-fatal warning

The projected configuration by IndraWorks does not agree with the actual configuration of the inline io bus.

Cause:	Remedy:
The configuration projected in IndraWorks is incorrect.	Correct these settings and load it into the control.
Wrong inline modules are connected to the control.	Switch off the control and plug the proper inline modules to the control.

3.3.13 E00E0026, Version conflict in error logbook, logbook deleted!

Display: E00E0026

Non-fatal warning

The error memory (diagnostic logbook) has a version ID.

At system start, it is checked whether the error memory version is compatible to the firmware version.

If the version is not compatible, incompatible entries or all entries are deleted if required.

The system continues its normal operation.

Cause: Firmware update, firmware downgrade. The new firmware does not support the version of the error memory.

MLC_TABLE Diagnostics

Solution: None.

Not required, since only the old entries are lost.

3.3.14 E00E0050, Logbook is inconsistent. Faulty entries deleted.

Display: E00E0050

Non-fatal warning

The error memory (diagnostic logbook) is stored on the CF card at control runtime.

When reading in the entries, inconsistent entries were found.

The following entries cannot be interpreted and are thus deleted.

The system continues its normal operation.

Cause: While saving, the control is disconnected from the power supply.

Solution: None. Only the older entries are lost.

3.3.15 E0110001, Axis in 'PowerOn'

Display: E0110001

Non-fatal warning

The control should be switched from operating mode to parameterization mode, while an axis is in the "Power on carried out" state.

Cause: An axis is in the "Power on carried out" state.

Solution: Move axis using MC_Power to "No power connected" state, parameter "A-0-0022, Extended axis status, bit 3 = 0".

3.3.16 E0110002, Axis not in 'StandStill'

Display: E0110002

Non-fatal warning

The control is to be switched from operating mode to parameterization mode while an axis is not in the "Axis velocity less/equal to A-0-0222 standstill" ("A-0-0021, Axis status, bit 5").

Cause: An axis is not reporting "Axis velocity $\leq$ A-0-0222 standstill".

Solution: Bring the axis to a standstill or adjust parameter "A-0-0222, Standstill window".

3.3.17 E0110029, Positive travel limit exceeded

Display: E0110029

Non-fatal warning

The drive provides a function to monitor a permitted travel range by means of parameterizable software end switches.



The monitoring of the travel range must be enabled and parameterized using the parameters "A-0-0030, Position limit value, positive", "A-0-0031, Position limit value, negative" and "A-0-0029, Position polarities".

The drive's reaction (warning or error) to an infringement of a travel range must be parameterized in parameter "A-0-0028, Travel range limit".

Cause:	Solution:
A command value has been specified for the axis which leads to an axis position outside of the positive travel range/ position/limit value "A-0-0030, Position limit value, positive".	Specify a command value that leads again to the permitted travel range. Contact the machine manufacturer to clarify the cause of the faulty command value.
Incorrect parameterization of the positive travel range / position limit value.	Check and possibly correct parameterization of "A-0-0030, Position limit value, positive".

MLC_TABLE Diagnostics



The parameter "A-0-2795, Position window" is used to execute a hysteresis function when evaluating the position limit values.

Refer also to the functional description "Position limitation/Travel range limit"

3.3.18 E0110030, Negative travel limit exceeded

Display: E0110030

Non-fatal warning

The drive provides a function to monitor a permitted travel range by means of parameterizable software end switches.



The monitoring of the travel range must be enabled and parameterized using the parameters "A-0-0030, Position limit value, positive", "A-0-0031, Position limit value, negative" and "A-0-0029, Position polarities".

The drive's reaction (warning or error) to an infringement of a travel range must be parameterized in parameter "A-0-0028, Travel range limit".

Cause:	Solution:
A command value has been specified for the axis which leads to an axis position outside of the negative travel range/ position/limit value "A-0-0031, Position limit value, negative".	Specify a command value that leads again into the permitted travel range. Contact the machine manufacturer to clarify the cause of the faulty command value.
Incorrect parameterization of the positive travel range / position limit value.	Check and possibly correct parameterization of "A-0-0031, Position limit value, negative".



The parameter "A-0-2795, Position window" is used to execute a hysteresis function when evaluating the position limit values.

Refer also to the functional description "Position limitation/Travel range limit"

3.3.19 E0110050, Axis position is extrapolated

Display: E0110050

Non-fatal warning

Link axes offer the functionality of extrapolating the axis position with AT or MDT failures. The warning indicates that an extrapolation such as this is taking place. The number of cycles after which the diagnostics is displayed depends on the cycle time of the link. This means that the warning is displayed when the axis extrapolates 32 ms long (at 2 ms):

Cycle time in the link	Cycles with AT/MDT failures before the diagnostics is displayed
2000 μ s	16
4000 μ s	8
8000 μ s	4

Fig.3-1: Dependency of cycle time for display of diagnostics

MLC_TABLE Diagnostics

Cause:	Solution:
MDT or AT failures on the link ring.	Check the link ring cabling. Check the parameter "C-0-0702, C2C, OWG length".
Link ring breakage.	Eliminate ring breakage on the link ring.

3.3.20 E0110100, Control axis in warning

Display: E0110100

Non-fatal warning

The controller has a warning set from the PLC. A certain diagnostic code in A-0-0627 was not removed.

Cause: During the execution of the PLC program, the controller axis issued a warning.

Remedy: Correct the cause of the warning in the controller.

3.3.21 E0110101, Control axis, command in PLC-Stop or breakpoint refused

Display: E0110101

Non-fatal warning

To execute commands on the controller axis, the PLC program may not be stopped or located at a breakpoint if there is a PLC parameter system is active.

Cause: While starting a command on the controller axis, it was detected that the PLC is either in "Stop" state or at a breakpoint.

Solution: Delete the breakpoint and restart the PLC program.

3.3.22 E0112039, Maximum acceleration exceeded

Display: E0112039

Non-fatal warning

The acceleration specified by the function block is checked against the maximum value "A-0-0034, Acceleration limit value, bipolar".

Cause:	Solution:
"A-0-0034, Acceleration limit value, bipolar" too low.	Check and possibly correct parameterization of "A-0-0034, Acceleration limit value, bipolar".
The specified acceleration was greater than the value parameterized in "A-0-0034, Acceleration limit value, bipolar".	Reduce the acceleration value used.

3.3.23 E0112047, Velocity of interpolation = 0

Display: E0112047

Non-fatal warning

At discrete movements the programmed velocity is checked.

Cause: The specified velocity is 0.

Remedy: Adjust the velocity to the desired value.

3.3.24 E0112048, Acceleration of interpolation = 0

Display: E0112048

Non-fatal warning

At discrete movements the programmed velocity is checked.

Cause: The specified velocity is 0.

Remedy: Adjust the velocity to the desired value.

3.3.25 E0112049, Positioning velocity greater than limit (A-0-0032/ 33)

Display: E0112049

Non-fatal warning

MLC_TABLE Diagnostics

The effective velocity command value (positioning velocity) is limited to the value parameterized in "A-0-0032, Velocity limit value, positive" or "A-0-0033, Velocity limit value, negative".

Cause:	Solution:
Incorrect velocity specification. The value specified in the program is too large.	Change the programmed velocity to the required value.
"A-0-0032, Velocity limit value, positive" or "A-0-0033, Velocity limit value, negative" have been incorrectly parameterized.	Monitor the parameter content of "A-0-0032, Velocity limit value, positive" or "A-0-0033, Velocity limit value, negative".

3.3.26 E0112055, Feedrate Override A-0-0240=0

Display: E0112055

Non-fatal warning

Cause: Feedrate Override A-0-0240=0.

3.3.27 E0112063, Commanded velocity greater than Limit (A-0-0032/ 33)

Display: E0112063

Non-fatal warning

The command velocity is limited to the value parameterized in "A-0-0032, Velocity limit value, positive" or "A-0-0033, Velocity limit value, negative".

Cause:	Solution:
Incorrect velocity specification. The value specified in the program is too large.	Change the programmed velocity to a possible value.
"A-0-0032, Velocity limit value, positive" or "A-0-0033, Velocity limit value, negative" have been incorrectly parameterized.	Monitor the parameter content of "A-0-0032, Velocity limit value, positive" or "A-0-0033, Velocity limit value, negative".

3.3.28 E0113001, Maximum jerk exceeded

Display: E0113001

Non-fatal warning

The specified jerk is checked against the maximum value "A-0-0036, Jerk limit value, bipolar".

Cause:	Solution:
"A-0-0036, Jerk limit value, bipolar" too low.	Check and possibly correct parameterization of "A-0-0036, Jerk limit value, bipolar".
The specified acceleration was greater than the value parameterized in "A-0-0036, Jerk limit value, bipolar".	Reduce the acceleration value used.

3.3.29 E0113002, Velocity too high for cycletime

Display: E0113002

Non-fatal warning

The specified command velocity cannot be achieved because the cycle time of the control is too low.

If the axis is modulo scaled, the maximum travel velocity when using interpolation on the control depends on how the cycle time and the axis modulo are set. This is limited by the Nyquist-Shannon sampling theorem.

For a successful detection of movement direction, the distance traveled per cycle may not be greater than half of the set modulo range.

With an assumed modulo value of 360° this produces, for example:

MLC_TABLE Diagnostics

Cycle time in ms	Velocity in rpm
1	30000
2	15000
4	7500
8	3750
16	1875

3.3.30 E0113003, Dynamic jerk adjust active

Display: E0113003

Non-fatal warning

With active jerk limitation (A-0-0216!= 0) an unfortunate choice of commands can cause the velocity to be greatly exceeded.

For example, this can happen if a motion command that is running is prematurely interrupted by another motion command and the new commanded jerk is significantly below the previous commanded jerk. As the reduction of the acceleration that has already been built up now takes considerably longer using the new lower commanded jerk, this can lead to the velocity being exceeded.

In the event of a delay, this can therefore also cause an unwanted change of direction.

"Dynamic jerk adjustment" is intended to prevent precisely this behavior. To do this, the commanded jerk is adjusted (increased) in such a way that if the velocity is exceeded, it is limited to a range set between two boundaries.

The lower limit is set to 0 (standstill, i.e. no change in direction). The upper limit is set by the velocity limit set in parameter A-0-0032.

If the jerk is adjusted, this is indicated by the warning "E113003; Dynamic jerk adjust active".

Dynamic jerk adjustment can be disabled in parameter "A-0-0201, Interpolator configuration".

3.3.31 E0170001, Configured master axis is parking

Display: E0170001

Non-fatal warning

The control should be switched from operation mode to parameterization mode while an axis, configured as master, is parked.

Cause: A configured master axis is parked.

Remedy: Set parameter "A-0-0024, Axis condition" of the according axis to 0 so that the axis is parked no longer.

3.3.32 E0180005, Warning: Motion kernel exceeded control cycle time

Display: E0180005

Non-fatal warning

Motion commands are generated in the PLC program that lead to runtime fluctuations in the control core. The "monolithic" mode of the control core is enabled in parameter "C-0-0404, Timing control word"

Due to this runtime fluctuation, the PLC time slice exceeds the monitoring limit in the control.

MLC_TABLE Diagnostics

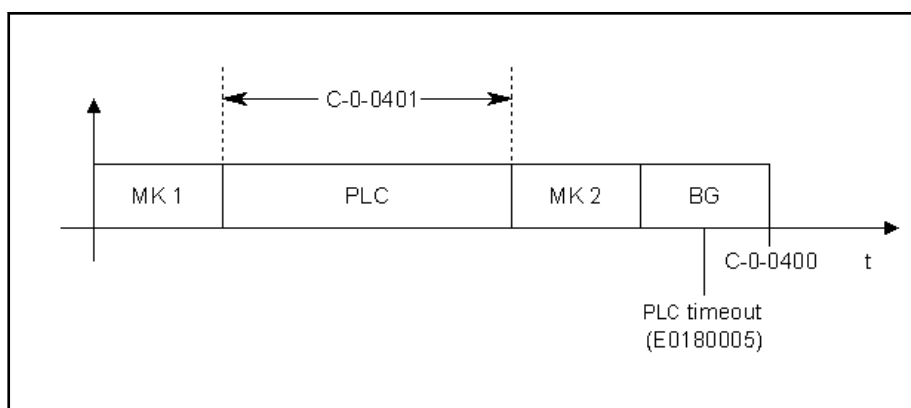


Fig.3-2: Monolithically working control core

The cycle time of the control is defined in parameter "C-0-0400, Motion, cycle time, command value". The control core and the PLC time slice must be ended within the defined cycle. Parameter "C-0-0401, Relative PLC time slot" defines how much computing time the PLC receives. The remaining computing time can be used to process the control core.

The warning "E0180005" is generated if the control requires more computing time for processing (refer to Description of Parameters C-0-0400, C-0-0401 and C-0-0404).

Cause: Motion commands were generated in the PLC program that have led to the cycle being exceeded in the control.

Solution: Increase the "C-0-0400, Motion, cycle time, command value" or reduce the "C-0-0401, Relative PLC time slot".

3.3.33 E0200000, Usable memory (RAM) near minimum

Display: E0200000

Non-fatal warning

The available user memory (RAM) is near minimum. This may result in a critical system condition, because other operations in the system, which need memory, possibly cannot be performed. For example, no communication to the drives may be performed.

Cause:	Remedy:
An error in the PLC-User program, in which always memory is allocated, but never is released again.	Check the PLC-User program for this kind of errors. For that purpose, stop the machine manually in the common way, switch off/on the control to subsequently perform the check.
An error in the firmware.	If after accurate analysis the problem still exist, please contact the service.

3.3.34 E0200001, Usable memory (CF) near minimum

Display: E0200001

Non-fatal warning

The available memory of the CompactFlash is near minimum. This may result in a critical system condition, because other operations in the system, which need memory on the CompactFlash, possibly cannot be performed. For example, a PLC-Bootproject may no longer be stored.

MLC_TABLE Diagnostics

Cause:	Remedy:
Too many, resp. too large projects are stored on the control (Com-pactFlash)	Check the PLC-User program, resp. the project(s) for this kind of errors, resp. delete the too many/incorrect saved projects.
Too large PLC-User programs (possibly also defective by reason of the size) have been stored	If after accurate analysis the problem still exist, please contact the service.

3.3.35 E0200002, Temperature warning

Display: E0200002

Non-fatal warning

The following control-dependent temperatures were exceeded:

Control-dependent temperature warnings

Control	Temperature
CML25	87°C (188°F)
CML45, CML65	70°C (158°F)
VEP	65°C (149°F)

This warning is automatically deleted with the following temperature:

Control-dependent reset temperatures

Control	Temperature
CML25	82°C (180°F)
CML45, CML65	65°C (149°F)
VEP	60°C (140°F)

Refer also to the diagnostics "F8200023, Critical Temperature reached; processor is stopped"

- Cause:**
- The control was mounted in a position that does not ensure sufficient ventilation.
 - No fan is mounted on the control when it is in a position that does not ensure sufficient ventilation.

Solution: Provide adequate ventilation or mount a fan on the control hardware.

3.3.36 E0200003, CPU-Load critical

Display: E0200003

Non-fatal warning

The CPU-Load has exceeded the adjusted value for "CPU-Load, level for warning" in parameter C-0-0418.

The warning is automatically deleted if the CPU-Load is lower than the adjusted value in parameter C-0-0418.

The control is working to full capacity:

Cause:	Remedy:
Cycletime for PLC too low.	Increase PLC cycletime.
Time slice of the integrated PLC on the MC-Cycletime too high (C-0-0401).	Reduce time slice of the integrated PLC (C-0-0401).

MLC_TABLE Diagnostics

Cause:	Remedy:
Too many parameter accesses have been programmed.	Reduce number of parameter accesses.
Overcharged network traffic to the control.	Reduce network traffic to the control.

3.3.37 E0200004, Usable memory (USR) near minimum

Display: E0200004

Non-fatal warning

The available memory on the user partition of the CompactFlash is at the minimum. This can lead to a critical system condition, because other events in the system which need memory on the CompactFlash possibly cannot be executed any more. For example, a PLC-Boot project perhaps cannot be filed any more.

Cause:	Remedy:
Too many or too big projects are stored (archived) on the control (CompactFlash). Too big PLC-User programs (perhaps also subjected to errors on account of the size) were filed.	Check the PLC-User program or the project(s) for errors of this kind or delete the too much/wrongly stored projects.
An error in the firmware.	If the error is still indicated after careful examination, please, take contact with the customer service.

3.3.38 E0200005, Usable memory (SYS) near minimum

Display: E0200005

Non-fatal warning

The available memory on the system partition of the CompactFlash is at the minimum. This can lead to a critical system condition, because other events in the system which need memory on the CompactFlash possibly cannot be executed any more. For example, a firmware download perhaps cannot be executed any more.

Cause:	Remedy:
User files on the system partition were filed wrongly.	All wrongly stored files must be deleted on the system partition.
An error in the firmware.	If the error is still indicated after careful examination, please, take contact with the customer service.

3.3.39 E0200006, Usable memory (OEM) near minimum

Display: E0200006

Non-fatal warning

The available memory on the OEM partition of the CompactFlash is at the minimum. This can lead to a critical system condition, because other events in the system which need memory on the CompactFlash possibly cannot be executed any more. For example, a PLC-Boot project perhaps cannot be filed any more.

MLC_TABLE Diagnostics

Cause:	Remedy:
Too many or too big projects are stored (archived) on the control (CompactFlash). Too big PLC-User programs (perhaps also subjected to errors on account of the size) were filed.	Check the PLC-User program or the project(s) for errors of this kind or delete the too much/wrongly stored projects.
An error in the firmware.	If the error is still indicated after careful examination, please, take contact with the customer service.

3.3.40 E0200007, Battery of SRAM module low

Display: E0200007

Non-fatal warning

The battery of an SRAM module has fallen below the limiting voltage of 2.7 V. Based on experience, after it has fallen below the limit value, a buffer of at least one month is guaranteed.

With typical buffer streams, the battery lasts for 4.2 years.

An additional number is attached to the diagnostic message. It indicates the slot (1, 2, 3 or 4) on which the respective SRAM module is located. "0" indicates an SRAM module directly integrated in the control.

Cause:	Solution:
The battery of an SRAM module (on a function module or directly integrated in the control) does not supply sufficient voltage.	Replace the battery as soon as possible in the respective SRAM module to avoid data loss when switching off the control.
An error in the firmware.	If, even after careful investigation (also always refer to the notes), the error is still displayed, contact the customer service.



To exchange the battery without data loss, the device has to be switched on.

The battery is only checked in larger intervals, since it has to be discharged for a short period during the measuring cycles. Thus, the reset of the warning is mostly not carried out directly after the new battery has been inserted, but can require several hours (corresponding to the interval for the next measuring cycle).

The battery can be replaced on the function modules from from without disassembly. When changing to a battery integrated in the control, disassembling of neighboring components might be required.

3.3.41 E0200009, Modified functionality of sercos FMs, reboot is necessary

Display: E0200009

Non-fatal warning

As an option, an sercos II function module (CrossCom) on the PCI bus of an L65/L45/L25 can be used as a drive or a C2C interface (control link). The sercos FM functionality can be used to select the desired interface.

The function module bus commanded configuration (C-0-0040) parameter is available for configuring the sercos function module. In addition to functionality, determinations such as the slot address on the PCI bus, module type, etc. can be made using this parameter.

This warning provides notification that the functionality of an individual sercos II FM has changed within the commanded configuration and that the control must be restarted.

MLC_TABLE Diagnostics

Cause:	Remedy:
There is only one sercos II FM on the PCI bus. The functionality has changed here.	The control must be switched off and back on again so that the new functionality becomes effective. Otherwise the previous functionality will remain in effect.
There are two sercos II FMs on the PCI bus. Here the functionality has changed across the two.	The control must be switched off and back on again so that the new functionalities become effective. Otherwise the previous functionalities will remain in effect.



A sercos III FM on the PCI bus can only ever be operated as a C2C interface.

3.3.42 E0200010, Modif. nr of com. sercos FMs, reboot may be necessary

Display: E0200010

Non-fatal warning

As an option, an sercos II function module (CrossCom) on the PCI bus of an L65/L45/L25 can be used as a drive or a C2C interface (control link). The sercos FM functionality can be used to select the desired interface.

The Function module bus - commanded configuration (C-0-0040) parameter is available for configuring the sercos function module. In addition to functionality, determinations such as the slot address on the PCI bus, module type, etc. can be made using this parameter.

All sercos FMs needed for control operation are entered in parameter C-0-0040, regardless of whether the functionality (e.g. C2C) is activated or deactivated. A restart depends on the change in commanded number as well as on the status of the function module or on the requirements of the new project, if a project transition has occurred.

This warning provides notification of a change in the commanded number of sercos FMs for the cases listed below. In most cases, the control must be restarted.

Cause:	Remedy:
A new sercos FM has been entered in the current commanded configuration and its functionality is to be activated immediately or during operation. It is possible that the functionality of the old sercos FMs will change.	The control must be switched off and back on again so that the new function module (and possibly the old function modules) will be initialized according to their respective functionalities. Otherwise the new (and the changed) functionalities will not become effective.
In the newly projected commanded configuration, an old sercos II FM that was used in the ongoing project as a drive interface has been removed.	The control must be switched off and back on again so that the drive interface onboard in the new project will operate as a sercos III interface. Otherwise the old sercos II interface will remain in effect for the drive ring.
In the newly projected commanded configuration, an old sercos FM that was configured in the ongoing project as a C2C interface has been removed. However, the control has not yet been part of the link or will no longer be part of the combined system for the new project.	In this case, the control does not have to be switched off and back on again because effectively this module was not needed or will no longer be needed. The warning can be ignored and deleted.
All sercos FMs have been removed from the commanded configuration (empty list).	This is a combination of both previous cases. For this reason, it is not necessary to switch the control off and back on again. However, in a more complex transition a restart is recommended in case of doubt.

MLC_TABLE Diagnostics



A sercos III FM on the PCI bus can only ever be operated as a C2C interface.

3.3.43 E0200011, Invalid commanded config. of drive ring via sercos FM

Display: E0200011

Non-fatal warning

A sercos II function module (CrossCom) on a PCI bus of an L65/L45/L25 is configured as a drive interface but cannot be initialized as such.

Instead, the control starts up the drive ring automatically onboard using the sercos III interface if this is possible.

Cause:	Remedy:
No sercos II function module was found with the slot address set in the function module bus commanded configuration (C-0-0040) for the sercos II drive interface.	Either: reset the commanded configuration in C-0-0040 to the actual slot address of the sercos II FM and switch the control off and back on again. Or: switch off the control, reset the slot address and the slot for the sercos II -FM and switch the control back on again.



A sercos III FM on the PCI bus can only ever be operated as a C2C interface.

3.3.44 E0200012, Invalid commanded config. of link ring via sercos FM

Display: E0200012

Non-fatal warning

A sercos II function module (CrossCom) on a PCI bus of an L65/L45/L25 is configured as a C2C interface but cannot be initialized as such.

In this case, if need be, the control can still be part of a sercos III link if a sercos III function module is still available on the PCI bus.

Cause:	Remedy:
No sercos II function module was found with the slot address set in the function module bus commanded configuration (C-0-0040) for the sercos II C2C interface.	Either: reset the commanded configuration in C-0-0040 to the actual slot address of the sercos II -FM and switch the control off and back on again. Or: switch off the control, reset the slot address and the slot for the sercos II -FM and switch the control back on again.



A sercos III FM on the PCI bus can only ever be operated as a C2C interface. In this case no comparison is made between the commanded/actual configuration; it is always active as a C2C interface.

A sercos III FM on the PCI bus is dominant with respect to a sercos II -FM. If sercos III and sercos II FMs are both present on the PCI bus, only one drive interface can be supported with the sercos II module.

3.3.45 E0200013, Error in SYS-partition, check done

Display: E0200013

Non-fatal warning

An error was discovered in the CompactFlash System partition file system, following which this partition was checked and the error was eliminated. The aim of this measure is to reestablish the partition, which may no longer be usable, so that it can be reused.

MLC_TABLE Diagnostics



Depending on the degree of damage to the file system, in the worst case, one or more files may have to be deleted. The function of the controller may possibly be impaired by this.

Cause: An error has occurred in the CompactFlash System partition file system. This can be the case, for example, if files are still being written while the controller is being switched off.

Remedy: Finish writing files before switching off the controller.
Please contact Customer Support if this problem occurs each time the controller starts up.

3.3.46 E0200014, Error in OEM-partition, check done

Display: E0200014

Non-fatal warning

An error was discovered in the CompactFlash OEM partition file system, following which this partition was checked and the error was eliminated. The aim of this measure is to reestablish the partition, which may no longer be usable, so that it can be reused.



Depending on the degree of damage to the file system, in the worst case, one or more files may have to be deleted. The function of the controller may possibly be impaired by this.

Cause: An error has occurred in the CompactFlash OEM partition file system. This can be the case, for example, if files are still being written while the controller is being switched off.

Remedy: Finish writing files before switching off the controller.
Please contact Customer Support if this problem occurs each time the controller starts up.

3.3.47 E0200015, Error in USR-partition, check done

Display: E0200015

Non-fatal warning

An error was discovered in the CompactFlash USR partition file system, following which this partition was checked and the error was eliminated. The aim of this measure is to reestablish the partition, which may no longer be usable, so that it can be reused.



Depending on the degree of damage to the file system, in the worst case, one or more files may have to be deleted. The function of the controller may possibly be impaired by this.

Cause: An error has occurred in the CompactFlash USR partition file system. This can be the case, for example, if files are still being written while the controller is being switched off.

Remedy: Finish writing files before switching off the controller.
Please contact Customer Support if this problem occurs each time the controller starts up.

3.3.48 E0200016, Rem. memory (NVRAM) near min. - reboot may be necessary

Display: E0200016

Non-fatal warning

The available remanent memory for the MLC system (NVRAM) is at a minimum. This can lead to a loss of performance up to a critical system condition

MLC_TABLE Diagnostics

because other system procedures that require memory may no longer be able to be executed.



This warning does not concern the area of PLC-retain data.

Cause:	Remedy:
The user has reserved lots of remanent memory. This may be the case if many objects have already been created that require remanent data (e.g. axes, certain parameters) and now another axis was created, for example. Also see the entry on "Memory" in the parameter descriptions.	Do not reserve more remanent memory (i.e. do not create any further objects that require remanent memory) or release objects (e.g. axes) that were already created or restart the control to optimized memory assignment.
An error in the firmware.	If, after careful investigation, the error is still displayed, please contact customer service.

3.3.49 E02C00B7, Velocity of the axis too high

Display: E02C00B7

Non-fatal warning

Causes in the automatic mode: The velocity limit value of an axis (A-0-0032 or A-0-0033) was exceeded. The velocity is reduced.

V, V_PTP, VFACTOR was programmed too high or the feed override factor is too high (refer to K-0-0240) or the point to be traversed goes towards a singularity.

Remedy: Adapt the programmed or specified values accordingly or increase the velocity limit value of the axis.

Causes in the manual mode: The velocity of an axis has exceeded the fast jog velocity (A-0-0083).

Possible causes are:

Jog velocity when jogging within world coordinates is too high (K-0-0083)

The point to be traversed goes towards a singularity.

The feed override factor is too high (refer to K-0-0240).

Remedy: Adjust the parameters A-0-0083 and K-0-0083 accordingly.

3.3.50 E02C00B8, Velocity of the axis too high

Display: E02C00B8

Non-fatal warning

Cause: The maximum path velocity (refer to K-0-0003) was exceeded. The velocity was limited.

The programmed or resulting path velocity was specified too high (refer to V or VFACTOR in the RCL program) or the feed override factor is too high (refer to K-0-0240).

Remedy: Reduce the given path velocity or increase the maximum path velocity in the parameter K-0-0003.

3.3.51 E02C0184, Vector assignment with different components

Display: E02C0184

Non-fatal warning

Cause: Vector assignment with different components.

3.3.52 E02C085E, SRAM batterie low

Display: E02C085E

Non-fatal warning

Cause: SRAM Battery low.

3.3.53 E02C0880, Axis deactivated

Display: E02C0880

Non-fatal warning

Cause: Axis Deactivated

3.3.54 E02C08CF, Resulting path velocity too high

Display: E02C08CF

Non-fatal warning

Cause: The maximum path velocity (refer to K-0-0003) was exceeded. The velocity was limited.

The programmed or resulting path velocity was specified too high (refer to V or VFACTOR in the RCL program) or the feed override factor is too high (refer to K-0-0240).

Remedy: Reduce the given path velocity or increase the maximum path velocity in the parameter K-0-0003.

3.3.55 E02C08D2, Resulting path velocity too high

Display: E02C08D2

Non-fatal warning

Cause: The maximum path velocity (refer to K-0-0003) was exceeded. The velocity was limited.

The programmed or resulting path velocity was specified too high (refer to V or VFACTOR in the RCL program) or the feed override factor is too high (refer to K-0-0240).

Remedy: Reduce the given path velocity or increase the maximum path velocity in the parameter K-0-0003.

3.3.56 E02C08D3, Resulting path velocity too high

Display: E02C08D3

Non-fatal warning

Cause: The maximum path velocity (refer to K-0-0003) was exceeded. The velocity was limited.

The programmed or resulting path velocity was specified too high (refer to V or VFACTOR in the RCL program) or the feed override factor is too high (refer to K-0-0240).

Remedy: Reduce the given path velocity or increase the maximum path velocity in the parameter K-0-0003.

3.3.57 E02C08D4, Resulting path velocity too high

Display: E02C08D4

Non-fatal warning

Cause: The maximum path velocity (refer to K-0-0003) was exceeded. The velocity was limited.

The programmed or resulting path velocity was specified too high (refer to V or VFACTOR in the RCL program) or the feed override factor is too high (refer to K-0-0240).

Remedy: Reduce the given path velocity or increase the maximum path velocity in the parameter K-0-0003.

3.3.58 E02C08D5, Resulting path velocity too high

Display: E02C08D5

Non-fatal warning

Cause: The maximum path velocity (refer to K-0-0003) was exceeded. The velocity was limited.

MLC_TABLE Diagnostics

The programmed or resulting path velocity was specified too high (refer to V or VFACTOR in the RCL program) or the feed override factor is too high (refer to K-0-0240).

Remedy: Reduce the given path velocity or increase the maximum path velocity in the parameter K-0-0003.

3.3.59 E02C08D6, Resulting path velocity too high

Display: E02C08D6

Non-fatal warning

Cause: The maximum path velocity (refer to K-0-0003) was exceeded. The velocity was limited.

The programmed or resulting path velocity was specified too high (refer to V or VFACTOR in the RCL program) or the feed override factor is too high (refer to K-0-0240).

Remedy: Reduce the given path velocity or increase the maximum path velocity in the parameter K-0-0003.

3.3.60 E02C08D7, Resulting path velocity too high

Display: E02C08D7

Non-fatal warning

Cause: The maximum path velocity (refer to K-0-0003) was exceeded. The velocity was limited.

The programmed or resulting path velocity was specified too high (refer to V or VFACTOR in the RCL program) or the feed override factor is too high (refer to K-0-0240).

Remedy: Reduce the given path velocity or increase the maximum path velocity in the parameter K-0-0003.

3.3.61 E02C08DF, No name specified with call of SET_RK_SYSTEM

Display: E02C08DF

Non-fatal warning

Cause: No Name Specified with Call of SET_RK_SYSTEM.

3.3.62 E02C0900, Blending error: Interpolator

Display: E02C0900

Non-fatal warning

Cause: An error occurred in the interpolator while calculating blending motion. Transition velocities and accelerations were not calculated.

Solution: Contact customer support.

3.3.63 E02C0901, Blending error: Lead distance of the spline too high

Display: E02C0901

Non-fatal warning

Cause: The lead distance of the spline calculation exceeds the path distance of the traversing command.

The lead distance results from the path velocity, the lead time of K-0-0250 and the current position when late blending takes place.

Blending is aborted with CONT_SLOPE.

Solution: Select a lower path velocity.

Select a lower lead time.

Issue the next traversing command earlier.

3.3.64 E02C0902, Blending error: Deceleration distance too short

Display: E02C0902

Non-fatal warning

Cause: The required deceleration distance while blending exceeds the path distance of the traversing command.

Blending is aborted with CONT_SLOPE.

Solution: Select a lower path velocity.

Select a lower lead time.

Issue the next traversing command earlier.

3.3.65 E02C0903, Blending error: Radius too small

Display: E02C0903

Non-fatal warning

Cause: The radius for the blending motion is too small.

Blending is aborted with CONT_SLOPE.

Solution: Program a bigger radius.

3.3.66 E02C0904, Blending error: Lead distance of the spline exceeded

Display: E02C0904

Non-fatal warning

Cause: The lead distance of the spline calculation was exceeded.

The lead distance results from the path velocity, the lead time of K-0-0250 and the current position when late blending takes place.

Blending is aborted with CONT_SLOPE.

Solution: Select a lower path velocity.

Select a higher lead time.

Issue the next traversing command earlier.

Reduce the control load.

3.3.67 E02C0905, Blending error: Point invalid

Display: E02C0905

Non-fatal warning

Cause: The point of the blending motion could not be calculated.

Blending is aborted with CONT_SLOPE.

Solution: Contact customer support.

3.3.68 E02C0906, Blending error: Parameter length of the spline invalid

Display: E02C0906

Non-fatal warning

Cause: The parameter length of the spline could not be determined.

Blending is aborted with CONT_SLOPE.

Solution: Contact customer support.

3.3.69 E02C0907, Blending error: Spline function invalid

Display: E02C0907

Non-fatal warning

Cause: The spline function could not be determined.

Blending is aborted with CONT_SLOPE.

Solution: Contact customer support.

3.3.70 E02C0908, Blending error: Arc length of the spline invalid

Display: E02C0908

Non-fatal warning

MLC_TABLE Diagnostics

Cause: The arc length of the spline could not be determined.
Blending is aborted with CONT_SLOPE.

Solution: Contact customer support.

3.3.71 E02C0909, Blending error: Inverse path length function invalid

Display: E02C0909 Non-fatal warning

Cause: The inverse path length function of the spline could not be determined.
Blending is aborted with CONT_SLOPE.

Solution: Select a lower path velocity.
Select a lower lead time.
Issue the next traversing command earlier.
Select a bigger radius for blending.

3.3.72 E02C090A, Blending error: Spline interpolator

Display: E02C090A Non-fatal warning

Cause: An error occurred in the interpolator while calculating blending motion.
Blending is aborted with CONT_SLOPE.

Solution: Contact customer support.

3.3.73 E02C090B, Blending error: Spline invalid

Display: E02C090B Non-fatal warning

Cause: The spline function could not be determined.
Blending is aborted with CONT_SLOPE.

Solution: Contact customer support.

3.3.74 E02C090C, Blending error: Shorten path at the end

Display: E02C090C Non-fatal warning

Cause: The path of the motion command could not be shortened.
Blending is aborted with CONT_SLOPE.

Solution: Contact customer support.

3.3.75 E02C090D, Blending error: Shorten path at the beginning

Display: E02C090D Non-fatal warning

Cause: The path of the motion command could not be shortened.
Blending is aborted with CONT_SLOPE.

Solution: Contact customer support.

3.3.76 E02C090E, Blending error: Calc.of the deceleration distance incorrect

Display: E02C090E Non-fatal warning

Cause: An error occurred when calculating the deceleration distance of a blending motion.
Blending is aborted with CONT_SLOPE.

Solution: Contact customer support.

3.3.77 E0350154, RCL Compiler: Character not read

Display: E0350154 Non-fatal warning

- Cause:** RCL-Compiler: Character Not Read
- 3.3.78 E0350175, RCL Compiler: Symbols will be ignored up to end of file**
Display: E0350175 Non-fatal warning
Cause: Symbols Up to End of File will be Ignored
- 3.3.79 E0350176, RCL Compiler: Symbols up to end of file will be ignored**
Display: E0350176 Non-fatal warning
Cause: Symbols Up to End of File will be Ignored
- 3.3.80 E0350187, RCL Compiler: Only EXTERN and GLOBAL permitted**
Display: E0350187 Non-fatal warning
Cause: RCL-Compiler: Only EXTERN and GLOBAL Permitted
- 3.3.81 E035021C, RCL Compiler: No defined variable as BINARY declared**
Display: E035021C Non-fatal warning
Cause: RCL-Compiler: No Defined Variable as Type BINARY Declared
- 3.3.82 E035021D, RCL Compiler: No defined variable as CHAR declared**
Display: E035021D Non-fatal warning
Cause: RCL-Compiler: No Defined Variable as Type CHAR Declared
- 3.3.83 E0350236, RCL Compiler: Implicit point definition**
Display: E0350236 Non-fatal warning
Cause: RCL-Compiler: Implicit Point Definition
- 3.3.84 E0350246, RCL Compiler: Illegal alignment**
Display: E0350246 Non-fatal warning
Cause: RCL-Compiler: Illegal alignment
- 3.3.85 E0370001, System overloaded**
Display: E0370001 Non-fatal warning
The tasks to control the communication with the control were not processed within the time set in parameter "C-0-0407, Watchdog, communication".
Further processing of the communication tasks must be ensured to keep the connection to the control established. For this reason, the PLC tasks for one cycle are not processed when this warning is issued.
Cause The available computing time is used by high priority tasks. Tasks that can cause this are PLC tasks and the task for calculating motion.
Solution The time needed to calculate motion is read in the "Cycle times" dialog window. The times of the configured PLC task can be read from the "Task configuration".

MLC_TABLE Diagnostics

Cause:	Solution:
The task to calculate motion uses the entire computing time.	Increase the motion cycle time "C-0-0400, Motion, cycle time, command value".
A cyclical PLC task uses the entire computing time.	Increase the cycle time of the PLC task.
A non-cyclic PLC task uses the entire computing time.	Try to transfer program parts of the PLC task that require a lot of time to cyclical PLC tasks that have a greater cycle time.

3.3.86 E03C0001, Check of integrity of XML configuration failed

Display: E03C0001

Non-fatal warning

The integrity check of the XML configuration failed.

Cause: The configuration file of the control "DeviceXCC.xml" is checked for modifications during control startup.

This warning is issued if an uncertified modification of the configuration is detected.

Solution: The correct functioning of the control cannot be guaranteed.

It is strongly recommended to restore the configuration file using a firmware download for example.

3.3.87 E039**, PLC Warnings from the 3S Kernel**

Cause: The 3S PLC kernel issues a warning.

Solution: There is no further information available on this warning.

Check the IndraLogic online error list or contact the customer support.

3.3.88 E03A**, PLC Warnings from Company Components**

Cause: One of the company components issues a warning.

Solution: There is no further information available on this warning.

Contact customer support.

3.4 C0 Errors, Non-Fatal Errors**3.4.1 C0 Errors, Error Reaction**

Logbook entry is generated; message is shown on the display; no error reaction.

C2C-C100 means that switching the C2C slaves in the link from C2C phase P2 to P3 failed.

C2C-C200 means that switching the C2C slaves in the link from C2C phase P3 to P4 (BB) failed.

3.4.2 C0280101, C2C-C0100: incomplete/invalid parameter set

Display: C0280101

C0, command error, Command_Error

The C2C master has attempted without success to start up the C2C link into operating status. This attempt failed during the switch from phase 2 to phase 3.

Cause: At least one of the C2C slaves aborts the command 'Switch from phase 2 to phase 2' (C-0-0100) with a command error because it detected a problem when checking its C2C configuration. The parameter set sent from the C2C master is either incomplete or contains an error.

MLC_TABLE Diagnostics

Reasons for this may be different command cycle times for C2C and drive ring (see parameters C-0-0400, C-0-0503, C-0-0700) or inconsistencies among the producing and local planned axes (see C-0-0778).

A transmission error in the C2C service channel cannot be excluded as a cause.

Remedy: Make sure that the master axes configured by the C2C master (to be produced by the participants are also configured locally in the respective participants and that the specified C2C cycle time in the C2C slaves corresponds with the cycle time for the control communication (drive ring).



The C2C master aborts the C2C start up with the error message 'C2C error when switching to phase 3' (F0280029).



This error is also reported as a standard error if none of the reasons for the other specified command errors are valid.

3.4.3 C0280102, C2C-C0100: communication parameter limit exceeded

Display: C0280102

C0, command error, Command_Error

The C2C master has attempted without success to start up the C2C link into operating status. This attempt failed during the switch from phase 2 to phase 3.

Cause: At least one of the C2C slaves aborts the command 'Switch from phase 2 to phase 2' (C-0-0100) with a command error because it detected a problem when checking its C2C configuration. The parameter set sent by the C2C master leads to limit value errors at the slave.

Remedy: Make sure that the C2C cycle time specified by the C2C master can be set in the C2C slaves.



The C2C master aborts the C2C start up with the error message 'C2C error when switching to phase 3' (F0280029).

3.4.4 C0280108, C2C-C0100: invalid timing parameter (cycle time)

Display: C0280108

C0, command error, Command_Error

The C2C master has attempted without success to start up the C2C link into operating status. This attempt failed during the switch from phase 2 to phase 3.

Cause: At least one of the C2C slaves aborts the command 'Switch from phase 2 to phase 2' (C-0-0100) with a command error because it detected a problem when checking its C2C configuration. The C2C timing specified by the C2C master could not be set internally by the slave.

Remedy: Please contact customer service.



The C2C master aborts the C2C start up with the error message 'C2C error when switching to phase 3' (F0280029).

3.4.5 C0280109, C2C-C0100: invalid offset in HotPlug field (MDT address)

Display: C0280109

C0, command error, Command_Error

The C2C master has attempted without success to integrate recently connected C2C slaves dynamically into the running C2C link using a hot plug. This attempt failed in hot plug phase 2.

MLC_TABLE Diagnostics

Cause: At least one of the new C2C slaves cannot be integrated into the C2C link using the hot plug mechanism because an illegal offset in the hot plug field was detected in the hot plug phase 2 during switch command S-0-0127.

Remedy: Please contact customer service.



The C2C master reports the error 'C2C master - hot plug mechanism aborted' (F0280065).

3.4.6 C0280113, C2C-C0100: invalid ratio of cycle times (motion/sercos)

Display: C0280113

C0, command error, Command_Error

The C2C master has attempted without success to start up the C2C link into operating status. This attempt failed during the switch from phase 2 to phase 3.

Cause: At least one of the C2C slaves aborts the command 'Switch from phase 2 to phase 2' (C-0-0100) with a command error because it detected a problem when checking its C2C configuration. The C2C cycle time specified by the C2C master could not be set in the C2C slaves because it is not a multiple of the locally specified cycle time for control communication or vice versa (see parameters C-0-0400, C-0-0503, C-0-0700).

Remedy: Make sure that the various cycle times set are multiples of each other.



The C2C master aborts the C2C start up with the error message 'C2C error when switching to phase 3' (F0280029).

3.4.7 C0280171, C2C-C0100: maximum length for connections exceeded

Display: C0280171

C0, command error, Command_Error

The C2C master has attempted without success to start up the C2C link into operating status. This attempt failed during the switch from phase 2 to phase 3.

Cause: At least one of the C2C slaves aborts the command 'Switch from phase 2 to phase 2' (C-0-0100) with a command error because it detected a problem when checking its C2C configuration. The connection configuration sent by the C2C master exceeded the maximum length for the C2C data to be transmitted.

Remedy: Make sure that the data to be transmitted to your connections do not exceed the permissible total length for connection data.



The C2C master aborts the C2C start up with the error message 'C2C error when switching to phase 3' (F0280029).

3.4.8 C0280172, C2C-C0100: no delay measuring executed (S-0-1024)

Display: C0280172

C0, command error, Command_Error

The C2C master has attempted without success to start up the C2C link into operating status. This attempt failed during the switch from phase 2 to phase 3.

Cause: At least one of the C2C slaves aborts the command 'Switch from phase 2 to phase 2' (C-0-0100) with a command error because it could not execute its delay message (command S-0-1024) at all or only with an error.

Remedy: Please contact customer service.



The C2C master aborts the C2C start up with the error message 'C2C error when switching to phase 3' (F0280029).

3.4.9 C0280173, C2C-C0100: maximum number of connections exceeded

Display: C0280173

C0, command error, Command_Error

The C2C master has attempted without success to start up the C2C link into operating status. This attempt failed during the switch from phase 2 to phase 3.

Cause: At least one of the C2C slaves aborts the command 'Switch from phase 2 to phase 2' (C-0-0100) with a command error because it detected a problem when checking its C2C configuration. The connection configuration sent by the C2C master exceeded the maximum number of connections.

Remedy: Make sure that the number of your configured connections does not exceed the permissible total.



The C2C master aborts the C2C start up with the error message 'C2C error when switching to phase 3' (F0280029).

3.5 F0 Errors, Non-Fatal Errors

3.5.1 F0 Errors, Error Reaction

Logbook entry is generated; message is shown on the display; no error reaction.

3.5.2 F0020001 up to F0050013, RTOS Error (Real Time Operating System)

A non-fatal internal firmware error occurred.

Cause: A firmware error occurred.

Remedy: Stop the machine manually as usual and cycle power on the control. If the error persists, contact customer service.

3.5.3 F0070001, Size of parameter changed

Display: F0070001

Non-fatal error, System_Error

This error may occur after changing the firmware. In the new version the data size of at least one parameter has changed. The parameter is set to its default value and simultaneously the data status is set to invalid.

While phase run-up the parameter is listed in "List of all invalid C parameters" (C-0-0111 / A-0-0011 / K-0-0011).

Cause: This error may occur after a firmware change.

Remedy: Write valid values to all parameters, listed in C-0-0111 resp. A-0-0011/ K-0-0011.

3.5.4 F00A0001, Parameter write-error during import, see C-0-0114

Display: F00A0001

Non-fatal error, Other_Error

The parameter import has been triggered from a par file using parameter "C-0-1011, Command: Import parameter".

At least one parameter could not be written here. The list of failed parameters can be checked using parameter "C-0-0114, IDN list of import errors".

MLC_TABLE Diagnostics

Cause: The par file was possibly edited manually and may have been subject to an error.

Solution: Correct error and repeat import or correct incorrect parameters manually.

3.5.5 F00A0002, Import/Export: File could not be opened

Display: F00A0002

Non-fatal error, Other_Error

The parameter import has been triggered from a par file using parameter "C-0-1011, Command: Import parameter".

The par file required for this could not be found.

Cause:

- No export was executed or
- the file was deleted.

Solution: Create a new file.

3.5.6 F00A0003, Import/Export: Unknown parameter type

Display: F00A0003

Non-fatal error, Other_Error

The parameter import has been triggered from a par file using parameter "C-0-1011, Command: Import parameter".

Types of parameter were used in the file that are not supported by the control.

Cause: The par file was possibly created using another firmware version.

Solution: Delete the relevant parameters in the file.

3.5.7 F00A0004, Import: Length of line in import file exceeds maximum

Display: F00A0004

Non-fatal error, Other_Error

The parameter import has been triggered from a par file using parameter "C-0-1011, Command: Import parameter".

Cause: There is at least one parameter in the file, the line length of which is greater than 999 characters.

Solution: Delete the relevant parameters in the file and enter them manually.

3.5.8 F00A0005, Import/Export: Unsupported sercos parameter format

Display: F00A0005

Non-fatal error, Other_Error

The parameter import has been triggered from a par file using parameter "C-0-1011, Command: Import parameter".

Cause: There is at least one parameter in the file, the parameter format of which (for example 8-byte parameter) is not supported.

Solution: Delete the relevant parameters in the file and enter them manually.

3.5.9 F00B0003, sercos bus not closed

Display: F00B0003

Non-fatal error, System_Error

After switching on the control the sercos ring was not closed. The control cannot receive 10 consecutive phase 0 MDT telegrams.

sercos 2:

Cause:	Solution:
Fiber optic cable swapped or not correctly screwed on.	Check all fiber optic cables.
Defective fiber optic cable ring.	Check all fiber optic cables.

MLC_TABLE Diagnostics

Cause:	Solution:
Data rate for the drives and the control are set differently.	Check data rates.
The optical transmitting power of the control "C-0-0502, sercos Master, OWG length " or that of one of the participants in the sercos interface ring is set incorrectly.	Adapt the optical transmitting power of all participants on the sercos ring to the actual OWG length.
The supply voltage for the drives was first turned on after control start up.	Ensure that the supply voltage is switched on at the same time as or before the supply voltage for the control is switched on.
Defective drive.	Replacement

sercos III:

Cause:	Solution:
Ethernet cable not correctly connected.	Check link LEDs on the bus participants.
Defective Ethernet cable.	Check all Ethernet cables.
The supply voltage for the bus participants was only turned on after startup of the control.	Ensure that the supply voltage is switched on at the same time as or before the supply voltage for the control is switched on.
Defective bus participant.	Replacement
Bus participants are present on the sercos bus that do not meet the requirements of the sercos III V1.1 specification.	Replacement

3.5.10 F00B0006, Progression to phase 3 not possible

Display: F00B0006

Non-fatal error, System_Error

The control cannot execute the switchover from parameterization mode to sercos phase 3.

Cause: At least one drive declines to switch to phase 3.

Solution: Eliminate the error in the respective drive.

3.5.11 F00B0007, Progression to state ready not possible

Display: F00B0007

Non-fatal error, System_Error

The control cannot execute the switchover from parameterization mode to operating mode.

Cause: At least one drive declines to switch to operating mode.

Solution: Eliminate the error in the respective drive.

3.5.12 F00B0008, Drive not found

Display: F00B0008

Non-fatal error, Other_Error

The control compares the drive addresses entered in parameter "C-0-0484, Axes configuration list" with the drives actually found.

Cause: At least one drive was not found.

Solution: Correct the axis configuration.
Check the address setting on the drives.

MLC_TABLE Diagnostics

3.5.13 F00B0009, Maximum number of axes exceeded

Display: F00B0009

Non-fatal error, System_Error

The number of axes that can be operated on a control is limited according to the version (and selected cycle time).

Cause: The number of axes exceeds the number approved for the version.

Solution: Structure your project accordingly.

3.5.14 F00B0013, MC cycletime too less

Display: F00B0013

Non-fatal error, System_Error

The control sets the required cycle time in parameter "C-0-0400, Motion, cycle time, command value".

Cause: The set cycle time cannot be achieved.

Solution:

- Increase the cycle time set in "C-0-0400, Motion, cycle time, command value" or
- reduce the number of drives.

3.5.15 F00B0014, Parameter write-protected by password

Display: F00B0014

Non-fatal error, Access_Error

The control must set different parameters in the drive while switching from parameterization mode to operating mode.

Cause: The parameters to be set are write-protected by passwords in the drive.

Solution: Remove write protection in the relevant drive.

3.5.16 F00B0090, RTOS error (Real Time Operating System)

Display: F00B0090

Non-fatal error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.5.17 F00B0098, Cannot write on parameter S-0-0015

Display: F00B0098

Non-fatal error, System_Error

While switching from parameter mode to operating mode the control must set parameter "S-0-0015, Telegram type parameters" in the drive.

Cause: The parameter in the drive cannot be write.

Remedy: Remove write protection in the corresponding drive.

3.5.18 F00B0099, Cannot write on parameter S-0-0016

Display: F00B0099

Non-fatal error, System_Error

While switching from parameter mode to operating mode the control must set parameter "S-0-0016, Configuration list DT" in the drive.

Cause: The parameter in the drive cannot be write.

Remedy: Remove write protection in the corresponding drive.

3.5.19 F00B0100, Cannot write on parameter S-0-0024

Display: F00B0100

Non-fatal error, System_Error

While switching from parameter mode to operating mode the control must set parameter "S-0-0024, Configuration list MDT" in the drive.

Cause: The parameter in the drive cannot be write.

Remedy: Remove write protection in the corresponding drive.

3.5.20 F00B0101, Cannot write on parameter S-0-0007

Display: F00B0101

Non-fatal error, System_Error

While switching from parameter mode to operating mode the control must set parameter "S-0-0007, Measuring time actual values (T4)" in the drive.

Cause: The parameter in the drive cannot be write.

Remedy: Remove write protection in the corresponding drive.

3.5.21 F00B0102, Cannot read time slot parameter

Display: F00B0102

Non-fatal error, System_Error

While switching from parameter mode to operating mode the control must read the following parameters:

- S-0-0003, Transmission reaction drive telegram (T1min)
- S-0-0004, Switchover time transmit/receive (TATMT)
- S-0-0005, Minimum time actual value measurement (T4min)
- S-0-0088, Recovery time receive/receive (TATSY)
- S-0-0090, Copying time setpoints (TMTSG)

Cause: The parameter in the drive cannot be read.

Remedy: Remove protection in the corresponding drive.

3.5.22 F00B0103, Cannot read time slot parameter

Display: F00B0103

Non-fatal error, System_Error

While switching from parameter mode to operating mode the control must read the following parameters:

- S-0-0003, Transmission reaction drive telegram (T1min)
- S-0-0004, Switchover time transmit/receive (TATMT)
- S-0-0005, Minimum time actual value measurement (T4min)
- S-0-0088, Recovery time receive/receive (TATSY)
- S-0-0090, Copying time setpoints (TMTSG)

Cause: The parameter in the drive cannot be read.

Remedy: Remove protection in the corresponding drive.

3.5.23 F00B0104, Cannot write on time slot parameter

Display: F00B0104

Non-fatal error, System_Error

While switching from parameter mode to operating mode the control must process the following parameters:

- S-0-0003, Transmission reaction drive telegram (T1min)
- S-0-0004, Switchover time transmit/receive (TATMT)
- S-0-0005, Minimum time actual value measurement (T4min)
- S-0-0088, Recovery time receive/receive (TATSY)
- S-0-0090, Copying time setpoints (TMTSG)

Cause: The parameter in the drive cannot be written.

Remedy: Remove protection in the corresponding drive.

MLC_TABLE Diagnostics

3.5.24 F00B0105, Cannot write on time slot parameter

Display: F00B0105

Non-fatal error, System_Error

While switching from parameter mode to operating mode the control must process the following parameters:

- S-0-0015, Telegram type parameters
- S-0-0006, Transmission time of drive telegram (T1)
- S-0-0009, Start address master data telegram

Cause: The parameter in the drive cannot be written.

Remedy: Remove protection in the corresponding drive.

3.5.25 F00B0121, sercos: IO Error

Display: F00B0121

Non-fatal error, Device_Error

There is an error in the configuration of the sercos III IO modules.

Cause: At least one sercos III IO module is not correctly configured.

Solution: Check the sercos III IO configuration.

Further information and status messages relating to the cause of the error are shown as entries in the control's Error/Diagnostic recorder index.

With certain causes of error, the incorrect IO in the Project Explorer is also highlighted with a yellow triangle symbol.

A detailed error message is shown by double clicking on the slave node in the Project Explorer.

The following error texts are displayed here:

Error Text	Description
Wrong VendorCode	Master reports errors when comparing the command/actual configuration. The manufacturer's identifier of the slave participant is not identical to the command configuration.
Wrong VendorDeviceID	Master reports errors when comparing the command/actual configuration. The manufacturer's identifier of the slave participant is not identical to the command configuration.
Wrong ModuleTypeCode	Master reports errors when comparing the command/actual configuration. The ModuleTypeCode (module identifier) of the modules is not consistent with the command configuration.
Wrong Set ParamP2	Master reports errors when comparing the command/actual configuration. An error has occurred when writing application parameters to the slave.
Wrong MDT length	Master reports errors when comparing the command/actual configuration. The MDT (output data) connection length of the slave participant is not identical to the configured connection length.
Wrong AT length	Master reports errors when comparing the command/actual configuration. The MDT (output data) connection length of the slave participant is not identical to the configured connection length.
Class 1 Error	The slave reports errors to the master. Error code stands in the slave's parameter S-0-0390.

3.5.26 F00B0130, sercos III: Connection configuration not read/writeable

Display: F00B0130

Non-fatal error, Communication_Error

Error when reading or writing the following parameters in the sercos III phase startup

Cause:

MLC_TABLE Diagnostics

- S-0-1050.si.SE1 „sercos III connection: Configuration“: Incorrect writing of devices with the classification "SCP_VarCFG".
- S-0-1050.si.SE6 „sercos III connection: Configuration list“: Incorrect writing for the configuration type "Configuration list with EIDNs" and classification "SCP_VarCFG".
- S-0-0015 „Telegram type parameter“: Incorrect writing for the configuration type "FSP-Drive" and classification „SCP_VarCFG“.
- S-0-1050.si.SE5 „sercos III connection: Current connection length“: Error while reading the parameter.
- S-0-1050.si.SE4 „sercos III connection: Maximum connection length“: Incorrect reading of devices with the classification "SCP_VarCFG".
- S-0-1005 „sercos III: Minimum time between t4 and t1 (t5)“: Incorrect reading of devices with the function package "+SCP_Sync“:

Remedy: Check write protection of the parameters. Check connection configuration S-0-1050.si.se.

3.5.27 F00B0131, sercos III: Parameter for configuration not writeable

Display: F00B0131

Non-fatal error, Communication_Error

Error when writing the following parameters in the sercos III phase startup.

Cause for devices with basic classification SCP_FixCFG or SCP_VarCFG:

- S-0-1002 sercos III : sercos cycle time (tSync)
- S-0-1009 sercos III : Device control (C-Dev) offset in the MDT
- S-0-1010 sercos III : MDT length
- S-0-1011 sercos III : Device status (S-Dev) offset in the AT
- S-0-1012 sercos III : AT length
- S-0-1013 sercos III : SVC offset in the MDT
- S-0-1014 sercos III : SVC offset in the AT
- S-0-1003 sercos III : MST failures allowed
- S-0-1050.si.SE3 „sercos III connection: Telegram assignment
- S-0-1017 sercos III : NRT transmission time (t6/t7)

Cause for devices with basic classification SCP_VarCFG:

- S-0-1050.si.SE2 „sercos III connection: Connection number

Cause for devices with function package +SCP_Sync:

- S-0-1006 sercos III : Transmission starting time of the drive telegram (t1)
- S-0-1007 sercos III : Measurement point in time of actual values (t4)
- S-0-1008 sercos III : Point in time command value valid MDT (t3)
- S-0-1015 sercos III : Ring delay
- S-0-1023 sercos III : SYNC jitter
- S-0-1050.si.SE11 sercos III connection: Producer failures allowed

Cause for devices with basic classification SCP_FixCFG and with function package +SCP_Sync or +SCP_WD:

- S-0-1050.si.SE1 sercos III connection: Configuration

MLC_TABLE Diagnostics

Cause for devices with function
package +SCP_Sync or SCP_WD:

- S-0-1050.si.SE10 sercos III connection: Producer cycle time
- Remedy:** Check write protection of the parameters. Check connection configuration S-0-1050.si.se.

3.5.28 F00B0132, sercos III: Communication capabilities not readable

Display: F00B0132 Non-fatal error, Communication_Error
Error when reading S-0-1000 in the sercos III phase startup.

Cause:

While reading the parameter S-0-1000 "sercos III: SCP type & version", a service channel error occurred.

- Remedy:** Try phase switching again (see C-0-0451). Exchange sercos III slave. If the error cannot be corrected, please contact the customer service.

3.5.29 F00B0133, sercos III: Error in transfer of configuration

Display: F00B0133 Non-fatal error, Communication_Error
Error when reading or writing the parameters in the sercos III phase startup

Cause:

- sercos III connection configuration S-0-1050.si.se. faulty.
- A service channel error occurred in the sercos III phase startup.

- Remedy:** Check write protection of the parameters. Check connection configuration S-0-1050.si.se.

3.5.30 F00B0134, sercos III: Connection configuration error

Display: F00B0134 Non-fatal error, Communication_Error
sercos III connection configuration is inconsistent.

Cause:

- Error in producer relations / consumer relations.
- Error in telegram assignment.

- Remedy:** Check connection configuration S-0-1050.si.se.

3.5.31 F00B0135, sercos III: Error in phaseswitch to CP1

Display: F00B0135 Non-fatal error, Communication_Error
Error during phase switching in sercos III phase startup

Cause:

- A new communication phase was specified and the "New CP Bit" was set. Not all devices at the bus stopped the transmission of telegrams until the timeout elapsed. The structure of the telegrams cannot be reconfigured.

- Remedy:** Check device. Try switchover again (see C-0-0451). If the error cannot be corrected, please contact the customer service.

3.5.32 F00B0136, sercos III: Error in phaseswitch to CP1

Display: F00B0136 Non-fatal error, Communication_Error
Error during phase switching in sercos III phase startup

Cause:

- The telegram structure was reconfigured for the new communication phase. The new CP was specified and the "New CP Bit" was deleted.

Not all devices at the bus started the transmission of telegrams until the timeout elapsed.

Remedy: Check device. Try switchover again (see C-0-0451). If the error cannot be corrected, please contact the customer service.

3.5.33 F00B0137, sercos III: Max. number of MDT-Data exceeded

Display: F00B0137 Non-fatal error, Communication_Error

Error in the sercos III connection configuration during phase startup

Cause:

- The command values to be transferred cyclically for all devices to be operated, do not fit into four MDT telegrams.

Remedy: Downsize the connection configuration.

3.5.34 F00B0138, sercos III: Max. number of AT-Data exceeded

Display: F00B0138 Non-fatal error, Communication_Error

Error in the sercos III connection configuration during phase startup.

Cause:

- The data to be transferred cyclically for all devices to be operated, do not fit into four AT telegrams.

Remedy: Downsize the connection configuration.

3.5.35 F00B0139, sercos III: Cycletime exceeded

Display: F00B0139 Non-fatal error, Communication_Error

Error in the sercos III connection configuration during phase startup.

Cause:

- The transmission period for all MDT and AT telegrams for the specified configuration is higher than the sercos cycle time tScyc.

Remedy: Downsize the connection configuration. Increase sercos III cycle time.

3.5.36 F00B0140, sercos III: Length of connection inconsistent

Display: F00B0140 Non-fatal error, Communication_Error

Error in the sercos III connection configuration during phase startup.

Cause:

- The current data length in S-0-1050.si.SE5 has to be identical for all connections with the same connection number.
- All parameters configured in S-0-1050.si.SE6 have to be in the sercos III device.

Remedy: Check connection configuration S-0-1050.si.se.

3.5.37 F00B0141, sercos III: Length of connection greater than max.

Display: F00B0141 Non-fatal error, Communication_Error

Error in the sercos III connection configuration during phase startup.

Cause:

- The current length of a connection in S-0-1050.SI.5 is greater than the maximum length allowed in S-0-1050.SI.4

Remedy: Check connection configuration S-0-1050.si.se. Downsize the connection configuration.

MLC_TABLE Diagnostics

3.5.38 F00B0142, sercos III: Cycletime of connection inconsistent

Display: F00B0142

Non-fatal error, Communication_Error

Error in the sercos III connection configuration during phase startup.

Cause:

- The producer cycle time of a produced connection is smaller than or a multiple of S-0-1002.

Remedy: Adjust producer cycle time or sercos III cycle time.**3.5.39 F00B0143, sercos III: Connection Number not unique**

Display: F00B0143

Non-fatal error, Communication_Error

Error in the sercos III connection configuration during phase startup.

Cause:

- The connection numbers are not unique in the configuration of the produced connections of all devices and the master.

Remedy: Check connection configuration S-0-1050.si.se.**3.5.40 F00B0144, sercos III: Error in type of configuration**

Display: F00B0144

Non-fatal error, Communication_Error

Error in the sercos III connection configuration during phase startup.

Cause:

- For a device with basic classification SCP_VarCFG, a configuration type, which is not supported, is entered in the connection configuration in S-0-1050.SI.1. The following values are allowed:
0 = Configuration list with EIDNs (SE6 relevant).
1 = Container without content specification (SE5 relevant).
2 = Telegram type parameter FSP-Drive (S-0-0015 relevant).

Remedy: Check connection configuration S-0-1050.si.se.**3.5.41 F00B0145, sercos III: Max. number of connections exceeded**

Display: F00B0145

Non-fatal error, Communication_Error

Error in the sercos III connection configuration during phase startup.

Cause:

- For a device with basic classification SCP_VarCFG, the number of the configured connections is greater than the number of supported connections.

Remedy: Check connection configuration S-0-1050.si.se. Downsize the connection configuration.**3.5.42 F00B0146, sercos III: Wrong number of connections**

Display: F00B0146

Non-fatal error, Communication_Error

Error in the sercos III connection configuration during phase startup.

Cause:

- For a device with basic classification SCP_FixCFG, the number of configured connections is not equal to 2.

Remedy: Check connection configuration S-0-1050.si.se.

3.5.43 F00B0147, sercos III: SCP classification error

Display: F00B0147

Non-fatal error, Communication_Error

Error when checking the sercos III classification of the connected devices in the phase startup.

Cause:

- In S-0-1000, both the basic classifications (SCP_FixCFG and SCP_VarCFG) are activated for one device. This is not allowed.

Remedy: Exchange device.

3.5.44 F00B0148, sercos III: Error in procedure command S-0-0128

Display: F00B0148

Non-fatal error, Communication_Error

Error when switching to CP4 in the sercos III phase startup.

Cause:

- The execution of the command "S-0-0128, C0100 Communication phase 4 transition check" was ended with an error for at least one device.

Remedy: Check error messages of the devices. Adjust configuration.

3.5.45 F00B0149, sercos III: Error in procedure command S-0-0127

Display: F00B0149

Non-fatal error, Communication_Error

Error when switching to CP3 in the sercos III phase startup.

Cause:

- The execution of the command "S-0-0127, C0100 Communication phase 3 transition check" was ended with an error for at least one device.

Remedy: Check error messages of the devices. Adjust configuration.

3.5.46 F00B0150, sercos III: Bus not stable

Display: F00B0150

Non-fatal error, Communication_Error

In CP0, no stable device configuration was detected at the bus.

Cause:

- Within the timeout period (2000 sercos cycles), no stable device configuration was detected at the bus (100 following AT0 telegrams with the same content).

Remedy: Check all devices. Check all Ethernet connections between the control and the devices.

3.5.47 F00B0151, sercos Address not valid

Display: F00B0151

Non-fatal error, Communication_Error

In CP0, devices with invalid sercos address were found.

Cause:

- Devices with sercos addresses greater than 511 were found.

Remedy: Check sercos addresses of all devices.

3.5.48 F00B0152, sercos Addresses inconsistent

Display: F00B0152

Non-fatal error, Communication_Error

In CP0, no stable device configuration was detected at the bus.

Cause:

MLC_TABLE Diagnostics

- In case of detected ring topology: The number or the sercos addresses of the detected slaves at port 1 and port 2 are not identical.

Remedy: Check all devices. Check all Ethernet connections between the control and the devices.

3.5.49 F00B0153, sercos III: Error in phaseswitch to CP2

Display: F00B0153 Non-fatal error, Communication_Error

Error during phase switching in sercos III phase startup

Cause:

- A new communication phase was specified and the "New CP Bit" was set. Not all devices at the bus stopped the transmission of telegrams until the timeout elapsed. The structure of the telegrams cannot be reconfigured.

Remedy: Check device. Try switchover again (see C-0-0451). If the error cannot be corrected, please contact the customer service.

3.5.50 F00B0154, sercos III: Error in phaseswitch to CP2

Display: F00B0154 Non-fatal error, Communication_Error

Error during phase switching in sercos III phase startup

Cause:

- The telegram structure was reconfigured for the new communication phase. The new CP was specified and the "New CP Bit" was deleted. Not all devices at the bus started the transmission of telegrams until the timeout elapsed.

Remedy: Check device. Try switchover again (see C-0-0451).
If the error cannot be corrected, please contact the customer service.

3.5.51 F00B0155, sercos III: Error in phaseswitch to CP3

Display: F00B0155 Non-fatal error, Communication_Error

Error during phase switching in sercos III phase startup

Cause:

- A new communication phase was specified and the "New CP Bit" was set. Not all devices at the bus stopped the transmission of telegrams until the timeout elapsed. The structure of the telegrams cannot be reconfigured.

Remedy: Check device. Try switchover again (see C-0-0451).
If the error cannot be corrected, please contact the customer service.

3.5.52 F00B0156, sercos III: Error in phaseswitch to CP3

Display: F00B0156 Non-fatal error, Communication_Error

Error during phase switching in sercos III phase startup

Cause:

- The telegram structure was reconfigured for the new communication phase. The new CP was specified and the "New CP Bit" was deleted. Not all devices at the bus started the transmission of telegrams until the timeout elapsed.

Remedy: Check device. Try switchover again (see C-0-0451). If the error cannot be corrected, please contact the customer service.

3.5.53 F00B0157, sercos III: Error in phaseswitch to CP4

Display: F00B0157

Non-fatal error, Communication_Error

Error during phase switching in sercos III phase startup

Cause:

- A new communication phase was specified and the "New CP Bit" was set. Not all devices at the bus stopped the transmission of telegrams until the timeout elapsed. The structure of the telegrams cannot be reconfigured.

Remedy: Check device. Try switchover again (see C-0-0451).

If the error cannot be corrected, please contact the customer service.

3.5.54 F00B0158, sercos III: Error in phaseswitch to CP4

Display: F00B0158

Non-fatal error, Communication_Error

Error during phase switching in sercos III phase startup

Cause:

- The telegram structure was reconfigured for the new communication phase. The new CP was specified and the "New CP Bit" was deleted. Not all devices at the bus started the transmission of telegrams until the timeout elapsed.

Remedy: Check device. Try switchover again (see C-0-0451).

If the error cannot be corrected, please contact the customer service.

3.5.55 F00B0159, Error in transfer of configuration

Display: F00B0159

Non-fatal error, Communication_Error

Error during phase switching in sercos III phase startup

Cause:

- Service channel error during phase switching to CP3

Remedy: Check device. Check connection configuration. Try switchover again (see C-0-0451).

If the error cannot be corrected, please contact the customer service.

3.5.56 F00B0160, Error in transfer of configuration

Display: F00B0160

Non-fatal error, Communication_Error

Error during phase switching in sercos III phase startup.

Cause:

- Service channel error during phase switching to CP4.

Remedy: Check device. Check connection configuration. Try switchover again (see C-0-0451).

If the error cannot be corrected, please contact the customer service.

3.5.57 F00B0164, Control timing error (T4)

Display: F00B0164

Non-fatal error, Communication_Error

Error during phase switching in sercos III phase startup.

Cause:

- T4 outside the time slot permitted.

Remedy: Check connection configuration. Increase sercos cycle time.

MLC_TABLE Diagnostics

3.5.58 F00B0165, Drive error

Display: F00B0165

Non-fatal error, System_Error

A drive with interpolation on the control (IndraDrive with interpolation on the control / SercosDrive) reports an F2xxx- / F3xxx error. The error reaction on control side was switched off.

⚠ CAUTION

The error reaction of the control for this axis was switched off with parameter A-0-0651.

There is therefore no error reaction from the control if the drive reports an error.

The user must perform the error reaction.

Implement an error reaction in the user program.

An error is detected in "C-0-0650, Diagnostics, status word, bit 2" and "C-0-0023, System status, bit 26", the error bit is always set in the AxisData[] structure.

Cause: At least one drive reports an error of error class 1.

Solution: Contact the drive manufacturer or take the appropriate measures from the drive documentation.

3.5.59 F00B0166, sercos III: Insufficient FPGA-TxRam

Display: F00B0166

Non-fatal error, Communication_Error

Error during phase change in sercos III phase start-up.

Reason:

too many cyclic MDT data configured for the sercos III interface.

Not all cyclic data could be processed.

Solution: Reduce the number of cyclic MDT data and retry switching (see C-0-0451).

3.5.60 F00B0167, sercos III: Insufficient FPGA-RxRam

Display: F00B0167

Non-fatal error, Communication_Error

Error during phase switching in the sercos III phase startup.

Cause:

- Too much cyclic AT data is configured for the sercos III interface. Not all cyclic data can be processed.

Solution: Reduce number of cyclic AT data. Try switchover again (see C-0-0451).

3.5.61 F00B0168, sercos III: Bus configuration inconsistent

Display: F00B0168

Non-fatal error, Communication_Error

Error during phase switching in the sercos III phase startup.

Cause:

- sercos III devices are configured in the Motion part on the control, which are not known to the PLC program on the control.
- sercos III devices are configured in the PLC program on the control, which are not known to the Motion part on the control.

Solution:

- Transfer the PLC program with the current device configuration into the control.

- Switch the control online via IndraWorks.

3.5.62 F00B0169, sercos III: Data format in C-0-0520 not valid

Display: F00B0169

Non-fatal error, Other_Error

Error during phase switching in the sercos III phase startup.

Cause:

- The connection configuration stored in C-0-0520 contains an incorrect table header.
- The connection configuration stored in C-0-0520 contains an incorrect version in the table header.
- The format of the connection configuration stored in C-0-0520 does not correspond to the specification.

Solution:

- Store the connection configuration in the correct format in C-0-0520.

3.5.63 F00B016A, sercos III: Invalid sercos address

Display: F00B016A

Non-fatal error, Input_Invalid_Error

Error during phase switching in the sercos III phase startup.

Cause:

- In the connection configuration C-0-0520, connections for sercos III devices not included in C-0-0478 are configured. These connections are not supported by the sercos III bus.

Solution:

- Remove the connections for non-existing sercos III devices from the connection configuration C-0-0520.
- Include the required sercos III device in the configuration in C-0-0478.

3.5.64 F00B016B, sercos III: Connection number already used

Display: F00B016B

Non-fatal error, Input_Range_Error

Error during phase switching in the sercos III phase startup.

Cause:

- Connection numbers are specified in the connection configuration C-0-0520. These numbers are already used for internally configured connections.

Solution:

- Adjust the connection numbers in the connection configuration.

3.5.65 F00B016C, sercos III: Connection instance already used

Display: F00B016C

Non-fatal error, INPUT_RANGE_ERROR

Error during phase switching in the sercos III phase startup.

Cause:

- Connection instances are specified in the connection configuration C-0-0520. These instances are already used for internally configured connections.

Solution:

- Adjust the connection instances in the connection configuration.

3.5.66 F00B016D, sercos III: Connection instance not valid

Display: F00B016D

Non-fatal error, INPUT_RANGE_ERROR

MLC_TABLE Diagnostics

Error during phase switching in the sercos III phase startup.

Cause:

- Connection instances are specified in the connection configuration C-0-0520. These instances are not supported in the sercos III overall configuration.

Solution:

- Adjust the connection instances in the connection configuration.

3.5.67 F00B016E, sercos III: Configuration too large

Display: F00B016E

Non-fatal error, INPUT_RANGE_ERROR

Error during phase switching in the sercos III phase startup.

Cause:

- Too many connections are specified in the connection configuration C-0-0520. These are not supported in the sercos III overall configuration.

Solution:

- Reduce the connection configuration.
- Reduce the number of configured sercos III devices in the C-0-0478.

3.5.68 F00B016F, sercos III: Max. number of connections exceeded

Display: F00B016F

Non-fatal error, INPUT_RANGE_ERROR

Error during phase switching in the sercos III phase startup.

Cause:

- Too many connections are specified in the connection configuration C-0-0520 for a sercos III device. These are not supported in the sercos III overall configuration.

Solution:

- Reduce the connection configuration for a sercos III device.

3.5.69 F00B0170, sercos III: Max. number of real-time bits exceeded

Display: F00B0170

Non-fatal error, INPUT_RANGE_ERROR

Error during phase switching in the sercos III phase startup.

Cause:

- Too many real-time bits are specified in the connection configuration C-0-0520. This is not supported in the sercos III overall configuration.

Solution:

- Reduce the number of real-time bits in the connection configuration.

3.5.70 F00B0171, sercos III: Max. number of IDN for one connection exceeded

Display: F00B0171

Non-fatal error, INPUT_RANGE_ERROR

Error during phase switching in the sercos III phase startup.

Cause:

- Too many IDNs are specified in the connection configuration C-0-0520 for one connection.

Solution:

- Reduce the number of IDNs in one connection in the connection configuration.

3.5.71 F00B7010, Command already set

Display: F00B7010

Non-fatal error, Access_Error

By program processed function blocks, partial commands in the drive are used (e.g. "S-0-0148, Command drive-controlled referencing"). If the function block is in process and the command is set manually in the drive, this diagnosis is set.

Cause: Drive commands which are used by the FB's, were set manually.

Remedy: Reset manually the started command.

3.5.72 F00C0001, Error while setting module references

Display: F00C0001

Non-fatal error, System_Error

An internal firmware error occurred. The boot sequence was aborted.

Cause: An error occurred in the firmware.

Remedy: Please contact the service.

3.5.73 F00C0003, Error in power up delay

Display: F00C0003

Non-fatal error, System_Error

An internal firmware error occurred. The power up delay, which is adjusted in C-0-0060, was possibly not executed. This may cause, that e.g. there is an access to not yet by the system created axes, and consequently other errors occur.

Cause: An error occurred in the firmware.

Remedy: Please contact the service.

3.5.74 F00C0004, Error while switching to power up target mode

Display: F00C0004

Non-fatal error, System_Error

An internal firmware error occurred. This may cause, that possibly it was not switched to the motion mode, determined in parameter C-0-0450 (e.g. "BB RUN").

Cause: An error occurred in the firmware.

Remedy: Switch to the desired motion mode using parameter C-0-0451. If the problem exists furthermore at each start of the control, please contact the service.

3.5.75 F00C0005, Error remanent data; data cleared

Display: F00C0005

Non-fatal error, System_Error

An error occurred while restoring the remanent data (parameters and PLC data). That means that this data is inconsistent.

The result is that all remanent data is cleared due to security reasons. With regard to the remanent data, the control is thus in its delivery (default) state again.

To further analyze or restore the system, the control startup was interrupted. Thus, the settings in C-0-0450 "Motion, startup target mode" were not applied.



This error can occur once when booting a newly delivered control or when changing to a new Compact Flash, as the remanent data has not yet been initialized.

This error does not affect RoCo data saved in the SRAM (that is RoCo files like *.ird, *.pkt, *.qll, *.sym).

MLC_TABLE Diagnostics

Cause: An error occurred in the firmware.

Solution: Normally, this remanent data only represents a part of the project-related settings (such as PLC projects, flash parameters, RoCo files). It is thus recommended to return to the delivery state (also refer to "C-0-1019, Command: Restart and reset to default " or the chapter "Deleting Memory/Resetting Control") to subsequently restore the complete project based on the project releases previously stored with IndraWorks for example.

If it is assumed that a remanent data backup is sufficient, there are the following options:

If a parameter backup was created via IndraWorks for example, these can be re-imported. This does not include any remanent PLC data if available.

If a backup was created on the flash card immediately before the error occurred using the parameter C-0-1002 (or a usable version of a phase switching is stored on the flash card before the control restart) this backup can be used for restoration purposes (for details, refer to the description of C-0-1001 and C-0-1002). It also contains the remanent PLC data. Note that NVRAM parameters or data changed after the backup on the flash card are not contained in the backup (that is after the execution of C-0-1002 or the last phase switching).

Contact the customer support if this problem occurs at each further control startup.

3.5.76 F00C0006, Error remanent data; restored last backup

Display: F00C0006

Non-fatal error, System_Error

An error occurred while restoring the remanent data (parameters and PLC data). When switching off the control (soft reboot or voltage switch-off) data could not be saved. That means all changes between the second last and the last switch-off are lost. The control is then in the state of the second last switch-off.

To further analyze or restore the system, the control startup was interrupted. Thus, the settings in C-0-0450 "Motion, startup target mode" were not applied.



This error does not affect RoCo data saved in the SRAM (that is RoCo files like *.ird, *.pkt, *.qll, *.sym).

Cause: An error occurred in the firmware.

Solution: If no remanent data (parameters and PLC data) was changed between the second last and the last restart of the control was changed, no further action is required.

If this cannot be ensured, the following solutions are possible:

Normally, this remanent data only represents a part of the project-related settings (such as PLC projects, flash parameters, RoCo files). It is thus recommended to return to the delivery state (also refer to "C-0-1019, Command: Restart and reset to default " or the chapter "Deleting Memory/Resetting Control") to subsequently restore the complete project based on the project releases previously stored with IndraWorks for example.

If it is assumed that a remanent data backup is sufficient, there are the following options:

If a parameter backup was created via IndraWorks for example, these can be re-imported. This does not include any remanent PLC data if available.

MLC_TABLE Diagnostics

If a backup was created on the flash card immediately before the error occurred using the parameter C-0-1002 (or a usable version of a phase switching is stored on the flash card before the control restart) this backup can be used for restoration purposes (for details, refer to the description of C-0-1001 and C-0-1002). It also contains the remanent PLC data. Note that NVRAM parameters or data changed after the backup on the flash card are not contained in the backup (that is after the execution of C-0-1002 or the last phase switching).

Contact the customer support if this problem occurs at each further control startup.

3.5.77 F00C0007, Firmware does not fit hardware

Display: F00C0007 Non-fatal error, System_Error

The firmware variant on the CF card cannot be operated on the hardware.

Cause: The CF card from a CML65 control is plugged in a CML45 control.

Solution: Plug in the CF card in the CML65 control.

3.5.78 F00D0002, Axis access error

Display: F00D0002 Non-fatal error, Access_Error

The axis data for the specified axis could not be written or read using direct variable access.

Cause:	Remedy:
The specified axis is not or no longer configured.	Configure the axis or remove the access from the PLC program.
An axis parameter was accessed that is not available for this axis type.	Adjust the PLC program accordingly.
There is a consecutive error from F00D1016, F00D1017 or F00D1018 (wrong # address of the axis data).	See the documentation for this error.
A firmware error has occurred.	Contact customer service.

3.5.79 F00D0060, Maximum number of PLC applications exceeded

Display: F00D0060 Non-fatal error, Resource_Error

Cause: More than the maximum number of permitted applications are in RUN state on the control.

Solution: Do not exceed the maximum permissible number when switching applications to RUN state.



Currently only a single application is permitted in RUN state.

Moreover, with several applications, note that the state of parameter "C-0-0023, System status" and the display and the status LED are no longer valid!

Example: An application is switched to STOP state, then the display shows STOP status and the status LED is active, but another application is still in RUN state and is possibly continuing to serve the IOs. The axes are stopped.

3.5.80 F00D0300, Output shorted

Display: F00D0300 Non-fatal error, System_Error

Cause: An output of the function module "Fast-IO" has short-circuited.

MLC_TABLE Diagnostics

The module's status LED lights up red.

Solution: Check the outputs of the corresponding function module for a short-circuit or overload.

The number of the module is specified in the error message. Counting from 1 to 4, whereby 1 stands for the module near the CML control.

3.5.81 F00D0301, Voltage supply dropped

Display: F00D0301

Non-fatal error, System_Error

Cause: The 24 V voltage supply of the function module "Fast-IO" is not in order.
The module's status LED lights up red.

Solution: Check the 24 V of the corresponding function module for its value. The number of the module is specified in the error message. Counting from 1 to 4, whereby 1 stands for the module near the CML control.

3.5.82 F00D0302, Watchdog error

Display: F00D0302

Non-fatal error, System_Error

Cause: The watchdog of the function module "Fast-IO" has expired.
The module's status LED lights up red.

Solution: Switch the control off and on again. Should the error continue to occur, then please inform customer service.

The number of the module is specified in the error message. Counting from 1 to 4, whereby 1 stands for the module near the CML control.

3.5.83 F00D0303, Module removed

Display: F00D0303

Non-fatal error, System_Error

Cause: At least one "Fast-IO" function block fewer was found than was configured.
This error can occur during project transfer and also during run-time.

Solution: Check whether all of the function modules are fixed on the control.
Check whether there are more modules included in your configuration than there are on the control.

3.5.84 F00D0304, Fault repaired

Display: F00D0304

Non-fatal error, System_Error

Cause: This message is displayed if the last pending error of a Fast-IO function module has been eliminated.

The status LED of all Fast-IO function modules is lit green.

Solution: --

3.5.85 F00D0305, Multiple error, fast IOs

Display: F00D0305

Non-fatal error, System_Error

Cause: The Fast-IO function module has reported several errors simultaneously.
The module's status LED lights up red.

Solution: Check the corresponding "Fast-IO" function module for

- 24 V power supply,
- the short-circuiting of an output.

The number of the module is specified in the error message. Counting from 1 to 4, whereby 1 stands for the module near the CML control.

3.5.86 F00D1002, Cyclic position channel already open

Display: F00D1002

Non-fatal error, Access_Error

A cyclic command channel has been opened with the function block ML_OpenCyclicPositionChannel for an axis that was already open.

Cause: Multiple opening of the cyclic command channel for one axis.

Solution: In the PLC program, prevent the cyclic command channel being able to be opened several times.

3.5.87 F00D1003, Cyclic force channel already open

Display: F00D1003

Non-fatal error, Access_Error

A cyclic force channel was open using the ML_OpenCyclicTorqueChannel function block for an axis that was already open.

Cause: Multiple opening of the cyclic force command value channel for one axis.

Solution: In the PLC program, prevent the cyclic force command value channel from being opened several times.

3.5.88 F00D1004, Cyclic velocity channel already open

Display: F00D1004

Non-fatal error, Access_Error

A cyclic velocity channel was opened using the ML_OpenCyclicVelocityChannel function block for an axis that was already open.

Cause: Multiple opening of the cyclic velocity channel for one axis.

Solution: In the PLC program prevent the cyclic velocity channel from being opened several times.

3.5.89 F00D1005, Cyclic analog channel already open

Display: F00D1005

Non-fatal error, Access_Error

A cyclic analog channel was opened with the function block ML_OpenCyclicAnalogChannel for an axis that was already open.

Cause: Multiple opening of the cyclic analog channel for one axis.

Solution: In the PLC program prevent the cyclic analog channel from being opened several times.

3.5.90 F00D100A, Error while reading C-0-0483

Display: F00D100A

Non-fatal error, Access_Error

The parameter "C-0-0483, List of configured axes" could not be read.

Cause: An error occurred in the firmware.

Solution: Please contact customer service.

3.5.91 F00D100B, Error while reading C-0-0484

Display: F00D100B

Non-fatal error, Access_Error

The parameter "C-0-0483, List of configured axes" could not be read.

Cause: An error occurred in the firmware.

Solution: Please contact customer service.

3.5.92 F00D100C, Error while opening cyclic channel

Display: F00D100C

Non-fatal error, Access_Error

The cyclic channel for the configured user-defined parameter could not be opened.

MLC_TABLE Diagnostics

Cause: A user-defined actual value A, B, C or D was configured in IndraWorks that cannot be cyclically transmitted.

Solution: Check the configured user-defined actual value.

3.5.93 F00D100D, Error while opening cyclic channel

Display: F00D100D

Non-fatal error, Access_Error

The cyclic channel for the configured user-defined parameter could not be opened.

Cause: A user-defined command value A, B, C or D was configured in IndraWorks that cannot be cyclically transmitted.

Solution: Check the configured user-defined command value.

3.5.94 F00D1014, No reference for opening cyclic channel available

Display: F00D1014

Non-fatal error, Access_Error

A firmware error occurred.

Cause: An error occurred in the firmware.

Remedy: Please contact the service.

3.5.95 F00D1016, Wrong #-address of axis data

Display: F00D1016

Non-fatal error, Access_Error

The direct variable address (*) with which the axis data should be accessed could not be decoded.

Cause:	Remedy:
A variable was declared and programmed manually which contains a faulty #-address.	Use only the automatic generated global MLC-Variables for the access on the axis data.
The automatic generation of this address is incorrect.	Please contact the customer service.

3.5.96 F00D1017, Wrong #-address of axis data

Display: F00D1017

Non-fatal error, Access_Error

The direct variable address (*) with which the axis data should be accessed could not be decoded.

Cause:	Remedy:
A variable was declared and programmed manually which contains a faulty #-address.	Use only the automatic generated global MLC-Variables for the access on the axis data.
The automatic generation of this address is incorrect.	Please contact the customer service.

3.5.97 F00D1018, Wrong #-address of axis data

Display: F00D1018

Non-fatal error, Access_Error

The direct variable address (*) with which the axis data should be accessed could not be decoded.

Cause:	Remedy:
A variable was declared and programmed manually which contains a faulty #-address.	Use only the automatic generated global MLC-Variables for the access on the axis data.
The automatic generation of this address is incorrect.	Please contact the customer service.

3.5.98 F00D1019, Error while closing cyclic channel

Display: F00D1019

Non-fatal error, Communication_Error

A firmware error occurred.

Cause: An error occurred in the firmware.

Remedy: Please contact the service.

3.5.99 F00D1027, Error while closing cyclic channel

Display: F00D1027

Non-fatal error, Communication_Error

An internal firmware error occurred when closing the cyclic channel for AT-Data.

Cause: Firmware error.

Remedy: Please contact the service.

3.5.100 F00D102A, ListParameter requested, ReadParameter

Display: F00D102A

Non-fatal error, Device_Error

This error has occurred because a function block MB_ReadParameter or MB_ReadRealParameter has accessed a list parameter.

Cause: Access error, incorrect function block for list parameters.

Solution: Please use MB_ReadListParameter to read list parameters.

3.5.101 F00D1030, Error while closing cyclic channel

Display: F00D1030

Non-fatal error, Communication_Error

At closing the cyclic channel for MTD-Data, an internal firmware error occurred.

Cause: Firmware error.

Remedy: Please contact the service.

3.5.102 F00D103B, Invalid control number

Display: F00D103B

Non-fatal error, Input_Invalid_Error

A variable of the type AXIS_REF is used in the PLC program that addresses an axis in a remote control. This present firmware version only supports access to local control axes.

Cause: In the PLC program an axis of a remote control was addressed.

Remedy: Update the PLC program.

3.5.103 F00D103C, Invalid axis number

Display: F00D103C

Non-fatal error, Input_Invalid_Error

A variable of the type AXIS_REF is used in the PLC program that addresses an unknown axis in the control.

Cause: An unknown axis was addressed in the PLC program.

Remedy: Update the PLC program or configure the missing axis in the control (see parameter "C-0-0484, Axes configuration list").

3.5.104 F00D1205, Error, cannot handle a single parameter

Display: F00D1205

Non-fatal error, System_Error

This error has occurred because a function block MB_ReadListParameter has accessed a single parameter.

MLC_TABLE Diagnostics

Cause: Access error, incorrect function block for single parameters.

Solution: Please use MB_ReadParameter or MB_ReadRealParameter to read single parameters.

3.5.105 F00D1207, Error, data greater 64KBytes

Display: F00D1207

Non-fatal error, System_Error

This error has occurred because a function block MB_WriteListParameter has attempted to write more than 65,532 bytes of data to a list parameter.

Cause: The data that can be written to a list parameter is generally limited to 65,532 bytes. The limit can even be below this with selected list parameters.

Solution: Please note that it is not possible to write more than 65,532 bytes of data to a list parameter.

Reduce the corresponding input size of the function block that displays the number of bytes to be written.

3.5.106 F00D1210, Error, cannot handle a single parameter

Display: F00D1210

Non-fatal error, System_Error

This error has occurred because a function block MB_WriteListParameter has attempted to write a single parameter.

Cause: Access error, incorrect function block for single parameters.

Solution: Please use MB_WriteParameter or MB_WriteRealParameter to write single parameters.

3.5.107 F00D1211, Error ReadSERCOSDataStatus, no memory available

Display: F00D1211

Non-fatal error, System_Error

This error has occurred with function block MB_ReadSercosDataStatus when reading the parameter's data.

Cause: This firmware error occurs when reading a parameter date.

Solution: Should the error re-occur when trying to read the parameter again, please inform customer service.

3.5.108 F00D1218, Error, no memory available

Display: F00D1218

Non-fatal error, Access_Error

This error has occurred with function block MB_ReadStringparameter when reading the parameter's data.

Cause: This firmware error occurs when reading a parameter date.

Solution: Should the error re-occur when trying to read the parameter again, please inform customer service.

3.5.109 F00D1219, Error, cannot handle a single parameter

Display: F00D1219

Non-fatal error, Access_Error

This error has occurred because a function block MB_ReadStringParameter has accessed a single parameter.

Cause: Access error, incorrect function block for single parameters

Solution: Please use MB_ReadParameter or MB_ReadRealParameter to read single parameters.

3.5.110 F00D1220, Unsupported selection of sercos element

Display: F00D1220

Non-fatal error, INPUT_RANGE_ERROR

MLC_TABLE Diagnostics

Selection of the sercos element is not supported by the function block.

Cause: A sercos element (ident number, name, attribute (MLC data type, editability, ...), unit, minimum value, maximum value, operating date (value)) has been selected at the "SercosElement" input of the function block that is not supported by the type of function block.

Solution: The value of the "SercosElement" input must be adapted to the type of function block.

Alternatively the corresponding function block must be selected for the desired value.

The function block MB_ReadParameter supports the sercos elements.

- E_SERCOS_ELEMENT_ATTRIBUTE ,
- E_SERCOS_ELEMENT_MIN,
- E_SERCOS_ELEMENT_MAX and
- E_SERCOS_ELEMENT_DATA.

The function block MB_ReadStringParameter supports the sercos elements.

- E_SERCOS_ELEMENT_NAME,
- E_SERCOS_ELEMENT_UNIT and
- E_SERCOS_ELEMENT_DATA.

3.5.111 F00D1221, Timeout on parameter access

Display: F00D1221

Non-fatal error, INPUT_RANGE_ERROR

The execution of the function block was interrupted by a timeout when accessing the parameter.

Cause: A timeout can occur if an online change is executed when accessing the parameters of a function block.

Solution: The execution of the parameter access must be repeated.

3.5.112 F00D1222, Too many data to transmit

Display: F00D1222

Non-fatal error, Access_Error

This error has occurred because a function block MB_WriteStringParameter has attempted to write more than 255 bytes of data to a string parameter.

Cause: The data that can be written to a string parameter is generally limited to 255 bytes. The limit can even be below this with selected string parameters.

Solution: Please note that it is not possible to write more than 255 bytes of data to a string parameter. Reduce the number of bytes to be written.

3.5.113 F00D1224, Error, no memory available

Display: F00D1224

Non-fatal error, Access_Error

This error has occurred with function block MB_WriteStringParameter when writing the data of a parameter.

Cause: This firmware error occurs when writing a parameter date.

Solution: Should the error re-occur when retrying to write the parameter, please inform customer service.

3.5.114 F00D1225, Error, cannot handle a single parameter

Display: F00D1225

Non-fatal error, Access_Error

This error has occurred because a function block MB_WriteStringParameter has attempted to write a single parameter.

MLC_TABLE Diagnostics

Cause: Access error, incorrect function block for single parameters.

Solution: Please use MB_WriteParameter or MB_WriteRealParameter to write single parameters.

3.5.115 F00D1227, Error while writing date

Display: F00D1227

Non-fatal error, Access_Error

This error has occurred with function block MB_WriteStringParameter when writing a date.

Cause: The date to be written was incorrect or was transmitted incorrectly. (e.g. date transmitted too short etc.).

Solution: Check whether the date to be written is correct for this parameter. Should the error re-occur when retrying to write the parameter, please inform customer service.

3.5.116 F00D1230, Error ReadSERCOSAttribute, no memory available

Display: F00D1230

Non-fatal error, Access_Error

This error has occurred with function block MB_ReadSercos Attribute when reading the parameter's data.

Cause: This firmware error occurs when reading a parameter date.

Solution: Should the error re-occur when trying to read the parameter again, please inform customer service.

3.5.117 F00D2001, Access error, axis 1

Display: F00D2001

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.118 F00D2002, Access error, axis 2

Display: F00D2002

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.

MLC_TABLE Diagnostics

Cause:	Remedy:
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.119 F00D2003, Access error, axis 3

Display: F00D2003

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.120 F00D2004, Access error, axis 4

Display: F00D2004

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.121 F00D2005, Access error, axis 5

Display: F00D2005

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

MLC_TABLE Diagnostics

3.5.122 F00D2006, Access error, axis 6

Display: F00D2006

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.123 F00D2007, Access error, axis 7

Display: F00D2007

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.124 F00D2008, Access error, axis 8

Display: F00D2008

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.125 F00D2009, Access error, axis 9

Display: F00D2009

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

MLC_TABLE Diagnostics

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.126 F00D200A, Access error, axis 10

Display: F00D200A

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.127 F00D200B, Access error, axis 11

Display: F00D200B

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.128 F00D200C, Access error, axis 12

Display: F00D200C

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

MLC_TABLE Diagnostics

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.129 F00D200D, Access error, axis 13

Display: F00D200D

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.130 F00D200E, Access error, axis 14

Display: F00D200E

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.131 F00D200F, Access error, axis 15

Display: F00D200F

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

MLC_TABLE Diagnostics

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.132 F00D2010, Access error, axis 16

Display: F00D2010

Non-fatal error, Access_Error

The axis data of the specified axis could not be written or read using direct variable access.

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.133 F00D2064, Axis not configured

Display: F00D2064

Non-fatal error, Access_Error

The axis data of the specified axias could not be written or read using direct variable access.

Cause:	Remedy:
The specified axis is not (any longer) configured.	Configure the axis or remove the accesses in the PLC-Program.
There was an access on an axis parameter which is not available with this axis type.	Adapt the PLC-Program accordingly.
It is a subsequent error of F00D1016, F00D1017 or F00D1018 (wrong #-Address of the axis data).	See documentation of this errors.
A firmware error has occurred.	Contact the customer service.

3.5.134 F00D2EE1, Fatal error: Inline los

Display: F00D2EE1

Non-fatal error, Device_Error

At the Inline IO-Bus a fatal error has appeared in the running operation. After a fatal error the other operation of the whole bus is not possible any more.

Cause: The following causes are possible:

- In the running operation an Inline module was pulled
- The Inline modules are not put together correctly and have a loose connection
- An Inline module is faulty

MLC_TABLE Diagnostics

- Strong EMV interferences (grid-bound or irradiation),
- Power supply has dips,
- Firmware error

Remedy: Switch off the control and check whether the Inline modules are put together correctly. Possibly exchange modules to find out whether a module is faulty.
Check whether the control was installed in accordance with the installation directives (EMV interferences, power supply).
If no physical causes are recognizable and the error appears repeated, then a firmware error could be also present. In this case report the error to the customer service.



This error might occur (together or as aftereffect) with error F00D2EE3.

3.5.135 F00D2EE2, An untreated Inlinebus error has occurred

Display: F00D2EE2

Non-fatal error, System_Error

At the Inline IO-Bus an untreated fatal error has appeared in the running operation.

Remedy: If no physical causes are recognizable and the error appears repeated, then a firmware error could be also present. In this case report the error to the customer service.

3.5.136 F00D2EE3, Reset on Inlinebus occurred

Display: F00D2EE3

Non-fatal error, System_Error

At the Inline IO-Bus a fatal error has appeared in the running operation. After a fatal error the other operation of the whole bus is not possible any more.

Cause: The following causes are possible:

- In the running operation an Inline module was pulled
- The Inline modules are not put together correctly and have a loose connection
- An Inline module is faulty
- Strong EMV interferences (grid-bound or irradiation),
- Power supply has dips,
- Firmware error

Remedy: Switch off the control and check whether the Inline modules are put together correctly. Possibly exchange modules to find out whether a module is faulty.
Check whether the control was installed in accordance with the installation directives (EMV interferences, power supply).
If no physical causes are recognizable and the error appears repeated, then a firmware error could be also present. In this case report the error to the customer service.



This error might occur (together or as aftereffect) with error F00D2EE1.

3.5.137 F00D2EE5, Module error Inline bus comes

Display: F00D2EE5

Non-fatal error, System_Error

Cause: At the Inline-Bus of the control a module error has appeared.

Remedy: This module error is module-specific and, therefore, can have several causes. Please, read the description of the appropriate module.

Example: shorted output.

3.5.138 F00D2EE7, System at the maximum load

Display: F00D2EE7

Non-fatal error, System_Error

Cause: All system calculation time is used.

Remedy: Check if the runtimes for the IEC tasks and the motion kernel fit within the related cycle times. If one or more runtimes is greater than the set cycle time, this task uses full system capacity. The runtimes for the IEC tasks can be read in the task configuration dialog. The runtimes for the motion kernel can be read in the cycle times dialog.

If this is the case, increase the cycle time or transfer program parts that require a lot of time to a task with a greater cycle time.

If necessary, check the parts of your program that use a lot of calculation time to see if they contain any errors.

Example: Endless loops in a PLC task

3.5.139 F00F0001 up to F00F0006, RTOS Error (Real Time Operating System)

A non-fatal internal firmware error occurred.

Cause: A firmware error occurred.

Remedy: Stop the machine manually as usual and cycle power on the control. If the error persists, contact customer service.

3.5.140 F0110001, No power turned

Display: F0110001

Non-fatal error, Other_Error

Power must be connected to execute MC_Power.

Cause: The function block MC_Power was executed without power connected.

Solution: Connect power to the drive controllers via the power supply unit and restart the function block.

3.5.141 F0110010, Error while synchronization of system time of the drive

Display: F0110010

Non-fatal error, System_Error

The system time of a drive could not be synchronized.

Synchronization of the drives takes place if

- the control is switched from P0 to P2,
- the system time of the control is changed, i.e. parameter C-0-0050 is written,
- the control is configured as a slave and the value of the local real-time clock deviates from the time basis of the sercos link.

This situation occurs if

- the real-time clocks are not running one hundred percent synchronously and the times drift apart,
- the system time of the master control was written.

MLC_TABLE Diagnostics

Cause:	Solution:
The system time of a drive could not be written.	
A configured drive was not found.	Check configuration in IndraWorks.
Error in the control firmware	If, after careful investigation, the error is still displayed, please contact customer service.
Error in the drive	If, after careful investigation, the error is still displayed, please contact customer service.

3.5.142 F0140001, Error in device configuration

Display: F0140001

Non-fatal error, Other_Error

- When switching the sercos phase from
 - P0 to P2 or
 - P2 to P4, and
- after writing parameter "C-0-0478, Drive setup",
the sercos devices configured in the parameters C-0-0478 are compared with the sercos devices on the sercos ring. An error has occurred here.

Cause:	Solution:
The following checks are performed if a device is parameterized and active or parked in parameter C-0-0478:	Parameter C-0-0478 is written by IndraWorks depending on the configured sercos devices.
• Is the device in the sercos ring?	• If there is not a device in the sercos ring, this must either be added or the device must be disabled.
• Is the device firmware version identical?	• If not, the device firmware is incorrect.
• If the function package identical?	• If not, the function package is incorrect.
If at least one of the checks has failed...,	then the device must be reconfigured in IndraWorks.

3.5.143 F0160001 up to F0160002, RTOS Error (Real Time Operating System)

A non-fatal internal firmware error occurred.

Cause: A firmware error occurred.**Remedy:** Stop the machine manually as usual and cycle power on the control. If the error persists, contact customer service.

3.5.144 F0160003, Error while changing to P0

Display: F0160003

Non-fatal error, System_Error

The switching to the desired motion mode was aborted.

Cause: Possible causes:

- the switching may not take place since an error occurred possibly before,
- an internal firmware error occurred.

Remedy: See diagnosis logbook, correct possibly existing errors and try switching again (see C-0-0451). At unrecoverable cause please contact the service.

3.5.145 F0160004, Error while changing to P0

Display: F0160004

Non-fatal error, System_Error

The switching to the desired motion mode was aborted.

Cause: Possible causes:

- the switching may not take place since an error occurred possibly before,
- an internal firmware error occurred.

Remedy: See diagnosis logbook, correct possibly existing errors and try switching again (see C-0-0451). At unrecoverable cause please contact the service.

3.5.146 F0160005, Error while changing to P2

Display: F0160005

Non-fatal error, System_Error

The switch into the desire motion mode was aborted.

Cause: Possible causes:

- One or more devices on the sercos III bus do not support the sercos III specification V1.1.1 (e.g. MPx06 or higher is required).
- The switch cannot be carried out due to an error that may have occurred earlier.
- An internal firmware error occurred.

Remedy: Access the diagnostics logbook, correct any errors and try switching again (see C-0-0451). If the error cannot be corrected, please contact the customer service.

3.5.147 F0160006, Error while changing to P2

Display: F0160006

Non-fatal error, System_Error

The switching to the desired motion mode was aborted.

Cause: Possible causes:

- the switching may not take place since an error occurred possibly before,
- an internal firmware error occurred.

Remedy: See diagnosis logbook, correct possibly existing errors and try switching again (see C-0-0451). At unrecoverable cause please contact the service.

3.5.148 F0160008, Error while changing to P3

Display: F0160008

Non-fatal error, System_Error

The switching to the desired motion mode was aborted.

Cause: Possible causes:

- the switching may not take place since an error occurred possibly before (e.g. see S-0-0095),
- an internal firmware error occurred.

Remedy: See diagnosis logbook, correct possibly existing errors and try switching again (see C-0-0451). At unrecoverable cause please contact the service.

3.5.149 F0160009, Error while changing to P3

Display: F0160009

Non-fatal error, System_Error

The switching to the desired motion mode was aborted.

Cause: Possible causes:

- the switching may not take place since an error occurred possibly before (e.g. see S-0-0095),
- an internal firmware error occurred.

MLC_TABLE Diagnostics

Remedy: See diagnosis logbook, correct possibly existing errors and try switching again (see C-0-0451). At unrecoverable cause please contact the service.

3.5.150 F0160010, Error while changing to P3

Display: F0160010

Non-fatal error, System_Error

The switching to the desired motion mode was aborted.

Cause: Possible causes:

- the switching may not take place since an error occurred possibly before (e.g. see S-0-0095),
- an internal firmware error occurred.

Remedy: See diagnosis logbook, correct possibly existing errors and try switching again (see C-0-0451). At unrecoverable cause please contact the service.

3.5.151 F0160011, Error during preparation for changing to P2

Display: F0160011

Non-fatal error, System_Error

The switching preparation to the desired motion mode was aborted.

Cause: Possible causes:

- the switching may not take place since an error occurred possibly before,
- an internal firmware error occurred.

Remedy: See diagnosis logbook, correct possibly existing errors and try switching again (see C-0-0451). At unrecoverable cause please contact the service.

3.5.152 F0160012, Error while changing to BB

Display: F0160012

Non-fatal error, System_Error

The switching to the desired motion mode was aborted.

Cause: Possible causes:

- the switching may not take place since an error occurred possibly before,
- an internal firmware error occurred.

Remedy: See diagnosis logbook, correct possibly existing errors and try switching again (see C-0-0451). At unrecoverable cause please contact the service.

3.5.153 F0160013, Error while changing to BB

Display: F0160013

Non-fatal error, System_Error

The switching to the desired motion mode was aborted.

Cause: Possible causes:

- the switching may not take place since an error occurred possibly before.
- an internal firmware error occurred.

Remedy: See diagnosis logbook, correct possibly existing errors and try switching again (see C-0-0451). At unrecoverable cause please contact the service.

3.5.154 F0160014, Error while changing to BB

Display: F0160014

Non-fatal error, System_Error

The switching to the desired motion mode was aborted.

Cause: Possible causes:

- the switching may not take place since an error occurred possibly before,
- an internal firmware error occurred.

Remedy: See diagnosis logbook, correct possibly existing errors and try switching again (see C-0-0451). At unrecoverable cause please contact the service.

3.5.155 F0160015 up to F0160023, RTOS Error (Real Time Operating System)

A non-fatal internal firmware error occurred.

Cause: A firmware error occurred.

Remedy: Stop the machine manually as usual and cycle power on the control. If the error persists, contact customer service.

3.5.156 F0160024, Error in cross-check C-parameters

Display: F0160024

Non-fatal error, System_Error

While crosschecking the C-parameter, an invalid combination, an invalid min./max. value, inconsistency between functionality and hardware or similar has been detected.

Cause: Possible causes are:

- minimum/maximum values have been exceeded or not achieved,
- invalid parameter combinations have been detected,
- functions/objects have been parameterized/configured for which the hardware needed is not available. For instance, link axes for a control link have been created for a control link, although no function module CFL01.01-Q2 has been plugged in.

Solution: Call parameter C-0-0111 and check the parameters noted therein.

If parameter C-0-0484 is executed in C-0-0111 and there is a link axis (element = 64) in this, it must be ensured that there is a functioning module CFL01.1-Q2 (see also C-0-0025).

3.5.157 F0160025, Error in cross-check A-parameters

Display: F0160025

Non-fatal error, System_Error

During cross-checking of the A-parameters, an invalid combination/an invalid min./max. value or similar occurred.

Cause: Possible causes e.g.:

- minimum/maximum values have been exceeded or not achieved,
- invalid parameter combinations have been detected.

Solution: Call parameter A-0-0111 and check the parameters noted therein.

3.5.158 F0160026 up to F0160029, RTOS Error (Real Time Operating System)

A non-fatal internal firmware error occurred.

Cause: A firmware error occurred.

Remedy: Stop the machine manually as usual and cycle power on the control. If the error persists, contact customer service.

3.5.159 F0160032, Error while changing to P2

Display: F0160032

Non-fatal error, System_Error

The switching to the desired motion mode was aborted.

Cause: Possible causes:

- the switching may not take place since an error occurred possibly before,

MLC_TABLE Diagnostics

- an internal firmware error occurred.
- Remedy:** See diagnosis logbook, correct possibly existing errors and try switching again (see C-0-0451). At unrecoverable cause please contact the service.

3.5.160 F0160033, Error while changing to P2

Display: F0160033 Non-fatal error, System_Error
The switching to the desired motion mode was aborted.

- Cause:** Possible causes:
- the switching may not take place since an error occurred possibly before,
 - an internal firmware error occurred.

Remedy: See diagnosis logbook, correct possibly existing errors and try switching again (see C-0-0451). At unrecoverable cause please contact the service.

3.5.161 F0160034, Error while changing to P3

Display: F0160034 Non-fatal error, System_Error
The switching to the desired motion mode was aborted.

- Cause:** Possible causes:
- the switching may not take place since an error occurred possibly before (e.g. see S-0-0095),
 - an internal firmware error occurred.

Remedy: See diagnosis logbook, correct possibly existing errors and try switching again (see C-0-0451). At unrecoverable cause please contact the service.

3.5.162 F0160035, Error during configuration of link communication

Display: F0160035 Non-fatal error, System_Error
The control is to be switched from operating mode to parameterization mode. An error has occurred when configuring the link communication.

- Cause:** A configured master axis is not present as an axis in parameter "C-0-0484, Axes configuration list".

Solution: Configure the master axis used in parameter "C-0-0484, Axes configuration list", or remove the master axis from parameter "C-0-0703, C2C, Configuration of master axes".

3.5.163 F0160036, Error during configuration of link communication

Display: F0160036 Non-fatal error, System_Error
The control is to be switched from operating mode to parameterization mode. An error has occurred when configuring the link communication.

Cause:	Solution:
The MLC participates in the link, is configured as the master and a further master has been detected in the MLC link.	Only configure one MLC as the master in parameter "C-0-0701, C2C, configuration of function modes".
The MLC participates without error in the link. The time slot of the integrated PLC on the MC cycle time is increased in parameterization mode.	Reduce parameter "C-0-0401, Relative PLC time slot" again to an uncritical value or Increase the cycle time in parameters "C-0-0700, C2C, cycle time (Tcyc), command value " and "C-0-0400, Motion, cycle time, command value".

MLC_TABLE Diagnostics

Cause:	Solution:
The MLC participates without error in the link. The cycle time in the drive and link ring is reduced in parameterization mode.	increase the cycle time in parameters "C-0-0700, C2C, cycle time (Tcyc), command value " and "C-0-0400, Motion, cycle time, command value" again to a critical value or Reduce parameter "C-0-0401, Relative PLC time slot".
The configured control address is invalid.	Configure a valid control address in parameter "C-0-0031, Control address", without exceeding the maximum value in accordance with the following table.

A valid control address must be less than the maximum permissible number depending on parameter "C-0-0700, C2C, Cycle time (Tcyc), command value".

Cycle time	Maximum control address
2000 µs	16
4000 µs	32
8000 µs	64

Fig.3-3: Maximum control address

3.5.164 F0160037, Error during configuration of link communication

Display: F0160037

Non-fatal error, System_Error

The control is to be switched from operating mode to parameterization mode. An error has occurred when configuring the link communication.

Cause: A configured master axis is not present as an axis in parameter "C-0-0484, Axes configuration list".

Solution: Configure the master axis used in parameter "C-0-0484, Axes configuration list", or remove the master axis from parameter "C-0-0703, C2C, configuration of master axes".

3.5.165 F0160038, Unable to deactivate link axes

Display: F0160038

Non-fatal error, System_Error

A local link axis of the control configured in IndraWorks cannot be disabled.

This option is not provided in the current firmware version and is also not supported by IndraWorks.

Cause: An attempt was made to disable a local link axis by a write access to parameter "A-0-0024, Axis condition" via the parameter interfaces.

Solution: If the local link axis is not needed in the application, it must be removed from the IndraWorks project.

3.5.166 F0160040, Error in cross-check K-parameters

Display: F0160040

Non-fatal error, System_Error

At the cross check of the K-Parameters an invalid combination/an invalid min/max-value or similar, occurred.

Cause: Possible causes e.g.:

- Min-/max-values are exceeded, resp. under-run,
- invalid parameter combinations are detected.

Remedy: Call parameter K-0-0011 and check the listed parameters.

MLC_TABLE Diagnostics

3.5.167 F0180008, Motion kernel exceeded control cycle time

Display: F0180008

Non-fatal error, System_Error

The cycle time of the control is defined in parameter "C-0-0400, Motion, cycle time, command value". The control core must be processed within the defined cycle.

The Motion kernel primarily fulfills two tasks. These are:

Actual value measurement

Command value generation

An error reaction is executed if the second part of the Motion kernel, the command value generation, cannot be completely processed within the Motion cycle set.

If the number of these failures (C-0-0422) is less than the value set via parameter "C-0-0420 Motion, watchdog sensitivity", error "F0180005: Timeout cycle time Motion kernel" is issued.

To check the times, the time needed to calculate the Motion can be read in the "Cycle times" dialog window. The times of the configured PLC task can be read from the "Task configuration".

Cause:	Solution:
The time the Motion kernel requires is longer than one Motion cycle.	Increase the Motion cycle time "C-0-0400, Motion, cycle time, command value".
The Motion kernel has been displaced by one or more higher priority tasks.	- Check the runtimes of the tasks that have higher priority than the Motion kernel. Try to transfer program parts of this task that require a lot of time to tasks that have a lower priority than the Motion kernel. - Check if it is necessary that these tasks have higher priority than the Motion kernel. If necessary, reduce the priority of this task or increase the priority of the Motion kernel.

3.5.168 F0180009, Calculation of actual values exceeded cycle time

Display: F0180009

Non-fatal error, System_Error

The cycle time of the control is defined in parameter "C-0-0400, Motion, cycle time, command value". The control core must be processed within the defined cycle.

The Motion kernel primarily fulfills two tasks. These are:

Actual value measurement

Command value generation

If the first part of the Motion kernel, the actual value measurement cannot be completely processed within the set Motion cycle, the error "F0180009: Cycle time exceeded for actual value measurement" is issued.

To check the times, the time needed to calculate the Motion can be read in the "Cycle times" dialog window. The times of the configured PLC task can be read from the "Task configuration".

MLC_TABLE Diagnostics

Cause:	Solution:
The time the Motion kernel requires for the actual value measurement is longer than for one Motion cycle.	Increase the Motion cycle time "C-0-0400, Motion, cycle time, command value".
The Motion kernel has been displaced by one or more higher priority tasks.	- Check the runtimes of the tasks that have higher priority than the Motion kernel. Try to transfer program parts of this task that require a lot of time to tasks that have a lower priority than the Motion kernel. - Check if it is necessary that these tasks have higher priority than the Motion kernel. If necessary, reduce the priority of this task or increase the priority of the Motion kernel.

3.5.169 F01B0000, RTOS error (Real Time Operating System)

Display: F01B0000

Non-fatal error, System_Error

When restoring remanent data (parameters and PLC data) from the flash card to the NVRAM area of the control, an error occurred. Thus, no remanent data was changed.

Cause: An error occurred in the firmware.

Remedy: Try to load remanent data manually to the NVRAM area of the control by executing the command "C-0-1001, Command: Load MotionControl parameters from FW module".

If this problem occurs again, contact the customer support.

3.5.170 F01B0001, RTOS error (Real Time Operating System)

Display: F01B0001

Non-fatal error, System_Error

When restoring remanent data (parameters and PLC data) from the flash card to the NVRAM area of the control, an error occurred. Thus, no remanent data was changed.

Cause: An error occurred in the firmware.

Remedy: Try to load remanent data manually to the NVRAM area of the control by executing the command "C-0-1001, Command: Load MotionControl parameters from FW module".

If this problem occurs again, contact the customer support.

3.5.171 F01B0002, RTOS error (Real Time Operating System)

Display: F01B0002

Non-fatal error, System_Error

When backing up remanent data (parameters and PLC data) from the NVRAM area of the control to the flash card, an error occurred.

Thus, when executing "C-0-1001, Command: Load MotionControl parameters from FW module", backed up data cannot be accessed and the command "C-0-1002, Command: Store MotionControl parameters in FW module" has to be executed.



The current remanent data is not affected by this error.

Cause: An error occurred in the firmware.

Remedy: Execute the command "C-0-1002, Command: Store MotionControl parameters in FW module" to store the remanent data (parameter and PLC data) from the NVRAM area of the control to the flash card.

MLC_TABLE Diagnostics

Subsequently, remanent data can be backed up on the flash card using the command "C-0-1001, Command: Load MotionControl parameters from FW module"

If this problem occurs again, contact the customer support.

3.5.172 F01B0003, RTOS error (Real Time Operating System)

Display: F01B0003

Non-fatal error, System_Error

When backing up remanent data (parameters and PLC data) from the NVRAM area of the control to the flash card, an error occurred.

Thus, when executing "C-0-1001, Command: Load MotionControl parameters from FW module", backed up data cannot be accessed and the command "C-0-1002, Command: Store MotionControl parameters in FW module" has to be executed.



The current remanent data is not affected by this error.

Cause: An error occurred in the firmware.

Remedy: Execute the command "C-0-1002, Command: Store MotionControl parameters in FW module" to store the remanent data (parameter and PLC data) from the NVRAM area of the control to the flash card.

Subsequently, remanent data can be backed up on the flash card using the command "C-0-1001, Command: Load MotionControl parameters from FW module"

If this problem occurs again, contact the customer support.

3.5.173 F01B0004, RTOS error (Real Time Operating System)

Display: F01B0004

Non-fatal error, System_Error

When restoring remanent data (parameters and PLC data) from the flash card to the NVRAM area of the control, an error occurred. Thus, no remanent data was changed.

Cause: An error occurred in the firmware.

Remedy: Try to load remanent data manually to the NVRAM area of the control by executing the command "C-0-1001, Command: Load MotionControl parameters from FW module".

If this problem occurs again, contact the customer support.

3.5.174 F01B0005, RTOS error (Real Time Operating System)

Display: F01B0005

Non-fatal error, System_Error

When restoring remanent data (parameters and PLC data) from the flash card to the NVRAM area of the control, an error occurred. Thus, no remanent data was changed.

Cause: An error occurred in the firmware.

Remedy: Try to load remanent data manually to the NVRAM area of the control by executing the command "C-0-1001, Command: Load MotionControl parameters from FW module".

If this problem occurs again, contact the customer support.

3.5.175 F01B0006, RTOS error (Real Time Operating System)

Display: F01B0006

Non-fatal error, System_Error

After the remanent data (parameters or PLC data) was restored from the flash card, no automatic reboot was triggered.

- Cause:** An error occurred in the firmware.
- Remedy:** Perform a manual reboot without write/read-only access to remanent data as fast as possible, since a proper functionality of the control is not ensured anymore.

3.5.176 F01B0007, RTOS error (Real Time Operating System)

Display: F01B0007 Non-fatal error, System_Error

When restoring remanent data (parameters and PLC data) from the flash card to the NVRAM area of the control, an error occurred. Thus, no remanent data was changed.

- Cause:** An error occurred in the firmware.
- Remedy:** Try to load remanent data manually to the NVRAM area of the control by executing the command "C-0-1001, Command: Load MotionControl parameters from FW module".
- If this problem occurs again, contact the customer support.

3.5.177 F01B0008, RTOS error (Real Time Operating System)

Display: F01B0008 Non-fatal error, System_Error

When restoring remanent data (parameters and PLC data) from the flash card to the NVRAM area of the control, an error occurred. Thus, no remanent data was changed.

- Cause:** An error occurred in the firmware.
- Remedy:** Try to load remanent data manually to the NVRAM area of the control by executing the command "C-0-1001, Command: Load MotionControl parameters from FW module".
- If this problem occurs again, contact the customer support.

3.5.178 F01B0009, RTOS error (Real Time Operating System)

Display: F01B0009 Non-fatal error, System_Error

An error occurred during the reboot.

- Cause:** An error occurred in the firmware.
- Remedy:** Execute "C-0-1021, Command: Restart" or "C-0-1019, Command: Restart and reset to default" to trigger a new reboot.

3.5.179 F01B0010, RTOS error (Real Time Operating System)

Display: F01B0010 Non-fatal error, System_Error

An error occurred during the reboot.

- Cause:** An error occurred in the firmware.
- Remedy:** Execute "C-0-1021, Command: Restart" or "C-0-1019, Command: Restart and reset to default" to trigger a new reboot.

3.5.180 F01B0011, Error while starting DHCP client

Display: F01B0011 Non-fatal error, Device_Error

The DHCP client could not be started.

3.5.181 F01B0012, Error while starting DHCP client

Display: F01B0012 Non-fatal error, Input_Invalid_Error

The DHCP server could not be started.

- Cause:** Incorrect configuration of the DHCP server.

MLC_TABLE Diagnostics

Solution: Please correct the configuration in parameters C-0-0250 to C-0-0299.

3.5.182 F01B0013, Error DHCP Client - No lease, default restored

Display: F01B0013

Non-fatal error, Other_Error

At least one interface is configured as a DHCP client and no DHCP server could be found. The last settings could be restored.

Cause: DHCP server cannot be reached.

Solution: Enable the DHCP server in the corresponding "Subnet" or configure the interface to a static IP address.

3.5.183 F01D0001 bis F01D0014, Error RTOS (Real Time Operating System)

A non-fatal internal firmware error occurred.

Cause: A firmware error occurred.

Remedy: Stop the machine manually as usual and cycle power on the control. If the error persists, contact customer service.

3.5.184 F0200001, Firmware download failed

Display: F0200001

Non-fatal error, System_Error

A non-fatal internal firmware error occurred. The firmware download was canceled.

Cause: A firmware error occurred.

Remedy: Try the firmware download again. If the error persists, contact customer service.

3.5.185 F0200002, Firmware download failed

Display: F0200002

Non-fatal error, System_Error

A non-fatal internal firmware error occurred. The firmware download was canceled.

Cause: A firmware error occurred.

Remedy: Try the firmware download again. If the error persists, contact customer service.

3.5.186 F0200003, Firmware download failed

Display: F0200003

Non-fatal error, System_Error

A non-fatal internal firmware error occurred. The firmware download was canceled.

Cause: A firmware error occurred.

Remedy: Try the firmware download again. If the error persists, contact customer service.

3.5.187 F0200004, Firmware download failed

Display: F0200004

Non-fatal error, System_Error

A non-fatal internal firmware error occurred. The firmware download was canceled.

Cause: A firmware error occurred.

Remedy: Try the firmware download again. If the error persists, contact customer service.

3.5.188 F0200005, Firmware download failed

Display: F0200005

Non-fatal error, System_Error

A non-fatal internal firmware error occurred. The firmware download was canceled.

Cause: A firmware error occurred.

Remedy: Try the firmware download again. If the error persists, contact customer service.

3.5.189 F0200006, Firmware download failed

Display: F0200006

Non-fatal error, System_Error

A non-fatal internal firmware error occurred. The firmware download was canceled.

Cause: A firmware error occurred.

Remedy: Try the firmware download again. If the error persists, contact customer service.

3.5.190 F0200007, Firmware download failed

Display: F0200007

Non-fatal error, System_Error

A non-fatal internal firmware error occurred. The firmware download was canceled.

Cause: A firmware error occurred.

Remedy: Try the firmware download again. If the error persists, contact customer service.

3.5.191 F0200008, Firmware download failed

Display: F0200008

Non-fatal error, System_Error

A non-fatal internal firmware error occurred. The firmware download was canceled.

Cause: A firmware error occurred.

Remedy: Try the firmware download again. If the error persists, contact customer service.

3.5.192 F0200009, Firmware download failed

Display: F0200009

Non-fatal error, System_Error

An internal firmware error occurred. The firmware update was cancelled.

Cause: The firmware issued an error.

Remedy: Restarting firmware update. If the error occurs again, please contact the customer service.

3.5.193 F0200010 up to F0200022, RTOS Error (Real Time Operating System)

A non-fatal internal firmware error occurred.

Cause: A firmware error occurred.

Remedy: Stop the machine manually as usual and cycle power on the control. If the error persists, contact customer service.

3.5.194 F0200024, Firmware download failed

Display: F0200024

Non-fatal error, System_Error

MLC_TABLE Diagnostics

A non-fatal internal firmware error occurred. The firmware download was canceled.

Cause: A firmware error occurred.

Remedy: Try the firmware download again. If the error persists, contact customer service.

3.5.195 F0200025, Firmware download failed

Display: F0200025

Non-fatal error, System_Error

A non-fatal internal firmware error occurred. The firmware download was canceled.

Cause: A firmware error occurred.

Remedy: Try the firmware download again. If the error persists, contact customer service.

3.5.196 F0200026, Firmware download failed

Display: F0200026

Non-fatal error, System_Error

A non-fatal internal firmware error occurred. The firmware download was canceled.

Cause: A firmware error occurred.

Remedy: Try the firmware download again. If the error persists, contact customer service.

3.5.197 F0200027, Firmware download failed

Display: F0200027

Non-fatal error, System_Error

A non-fatal internal firmware error occurred. The firmware download was canceled.

Cause: A firmware error occurred.

Remedy: Try the firmware download again. If the error persists, contact customer service.

3.5.198 F0200028, Firmware download failed

Display: F0200028

Non-fatal error, System_Error

A non-fatal internal firmware error occurred. The firmware download was canceled.

Cause: A firmware error occurred.

Remedy: Try the firmware download again. If the error persists, contact customer service.

3.5.199 F0200029, Firmware download failed

Display: F0200029

Non-fatal error, System_Error

A non-fatal internal firmware error occurred. The firmware download was canceled.

Cause: A firmware error occurred.

Remedy: Try the firmware download again. If the error persists, contact customer service.

3.5.200 F0200030, Error deleting files in SYSTEM partition

Display: F0200030

Non-fatal error, System_Error

MLC_TABLE Diagnostics

An error occurred while deleting the files in the SYSTEM partition. Maybe only some or no files were deleted.

Cause: The firmware issued an error.

Remedy: Avoid accessing files during the execution of the command by restricting access from IndraWorks, IndraLogic etc. If the error occurs again, please contact the customer service.

3.5.201 F0200031, Error deleting files in OEM partition

Display: F0200031

Non-fatal error, System_Error

An error occurred while deleting the files in the OEM partition. Maybe only some or no files were deleted.

Cause: The firmware issued an error.

Remedy: Avoid accessing files during the execution of the command by restricting access from IndraWorks, IndraLogic etc.
If the error occurs again, please contact the customer service.

3.5.202 F0200032, Error deleting files in USER partition

Display: F0200032

Non-fatal error, System_Error

An error occurred while deleting the files in the USER partition. Maybe only some or no files were deleted.

Cause: The firmware issued an error.

Remedy: Avoid accessing files during the execution of the command by restricting access from IndraWorks, IndraLogic etc.
If the error occurs again, please contact the customer service.

3.5.203 F0200033, Storage of remanent data impossible

Display: F0200033

Non-fatal error, System_Error

A backup of the remanent data (parameters and PLC data) is not possible since an error occurred. All parameter changes and/or changes carried out in the PLC data are lost when the supply voltage for the control is switched off.

Cause: The firmware issued an error.

Remedy: Restart the control before any parameters and/or PLC data are changed.
If this problems occurs during every startup of the control, please contact the customer support.

3.5.204 F0200036, Error initialising the hardware watchdog

Display: F0200036

Non-fatal error, System_Error

An error occurred when initializing the Watchdog within the control hardware.

As a result, the Watchdog is no longer used from within the hardware to monitor the correct functioning of the control software. Example: executing a program section that contains an error could require the entire CPU time for itself for an extended period such that other important functionalities such as communication, PLC program, etc. cannot run in their required time periods. Because the Watchdog, which usually runs independently, is not running, this situation cannot be diagnosed.

In addition, the ready relay cannot be closed because that is only possible when the Watchdog is running.

Cause: The firmware issued an error.

MLC_TABLE Diagnostics

Remedy: If hardware Watchdog or ready relay functionality is required, the control must be restarted.

Please contact Customer Support if this problem occurs each time the controller starts up.

3.5.205 F0200037, Error triggering the hardware watchdog

Display: F0200037

Non-fatal error, System_Error

An error occurred when triggering the Watchdog within the control hardware.

As a result, the Watchdog is no longer used from within the hardware to monitor the correct functioning of the control software. Example: executing a program section that contains an error could require the entire CPU time for itself for an extended period such that other important functionalities such as communication, PLC program, etc. cannot run in their required time periods. Because the Watchdog, which usually runs independently, is not running, this situation cannot be diagnosed.

In addition, the ready relay cannot be closed because that is only possible when the Watchdog is running.

If the Watchdog has already been started internally, the system error "F9200017, Hardware watchdog expired" may be generated and the ready relay opened again because the Watchdog will no longer be triggered and will expire after a specified period of time.

Cause: The firmware issued an error.

Remedy: If hardware Watchdog or ready relay functionality is required or if the the system error "F9200017, Hardware watchdog expired" was generated due to this error, the control must be restarted.

Please contact Customer Support if this problem occurs each time the controller starts up.

3.5.206 F0200038, Firmware download failed

Display: F0200038

Non-fatal error, System_Error

A non-fatal internal firmware error occurred.

Cause: A firmware error occurred.

Remedy: Stop the machine manually as usual and cycle power on the control. If the error persists, contact customer service.

3.5.207 F0200039, Firmware download failed

Display: F0200039

Non-fatal error, System_Error

A non-fatal internal firmware error occurred.

Cause: A firmware error occurred.

Remedy: Stop the machine manually as usual and cycle power on the control. If the error persists, contact customer service.

3.5.208 F0200040, Failure of temperature monitoring, hardware defect impends

Display: F0200040

Non-fatal error, System_Error

The temperature measurement of the control is omitted

Cause: It is not possible anymore to read out the temperature of the control.

The temperature can thus not be monitored and the hardware could fail.

Solution: Switch off the control to avoid a complete defect of the control and contact the customer support.

3.5.209 F0220200, General drive error

Display: F0220200

Non-fatal error, Other_Error

In the PLC-Program a movement command was generated, which is aborted during execution by an error in the addressed axis. The addressed real axis is connected to a drive. This drive reports an error.

Cause: In the PLC-Program a movement command for a real axis was generated. The drive of the real axis has detected an error during execution.

Remedy: Correct the error in the drive and quit the error in the axis. Subsequently activate the desired movement command again.

3.5.210 F0220201, Invalid control number

Display: F0220201

Non-fatal error, Resource_Error

A variable of the type AXIS_REF is used in the PLC program that addresses an axis in a remote control. This present firmware version only supports access to local control axes.

Cause: In the PLC program an axis of a remote control was addressed.

Solution: Update the PLC program.

3.5.211 F0220202, Invalid axis number

Display: F0220202

Non-fatal error, Resource_Error

A variable of the type AXIS_REF is used in the PLC program that addresses an unknown axis in the control.

Cause: An unknown axis was addressed in the PLC program.

Solution: Update the PLC program or configure the missing axis in the control (see parameter "C-0-0484, Axes configuration list").

3.5.212 F0220203, Invalid command type

Display: F0220203

Non-fatal error, State_Machine_Error

In the PLC-Program an unknown command is generated.

Cause: In the PLC-Program an unknown command was generated.

Remedy: Actualize the PLC-Program.

3.5.213 F0220204, Command not supported by axis

Display: F0220204

Non-fatal error, State_Machine_Error

A command that cannot be supported by the addressed axis is generated in the PLC program.

When configuring the axis, an axis type is selected that does not support the desired command (see status diagram of the axis type).

Cause: An illegal command was generated for the addressed axis in the PLC program.

Solution: Update the PLC program or change the configuration of the axis in the control (see parameter "C-0-0484, Axes configuration list").

3.5.214 F0220205, Command rejected, no power

Display: F0220205

Non-fatal error, State_Machine_Error

MLC_TABLE Diagnostics

A motion command that cannot be executed by the addressed axis is generated in the PLC program. No power or torque is currently switched on for the axis.

Cause: A motion command is generated for an axis in the PLC program without power being enabled.

Solution: Switch on the power or torque of the axis using function block MC_Power.

3.5.215 F0220206, Command rejected while 'Stopping'

Display: F0220206

Non-fatal error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis was switched to "Stopping" state using a function block MC_Stop. The function block MC_Stop is still active and has priority over other function blocks or motion commands (see Axis type status diagram).

Cause: In the PLC program, an unauthorized motion command was generated for an axis in the "Stopping" state.

Solution: Switch the axis to "Standstill" state using the MC_Stop function block. Then enable the desired motion command.

3.5.216 F0220207, Command rejected while 'Homing'

Display: F0220207

Non-fatal error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis was switched to "Homing" state using a function block MB_Home. The function block MB_Home is still active and has priority over other function blocks or motion commands (see Axis type status diagram).

Cause: In the PLC program, a motion command was generated for an axis in the "Homing" state.

Solution: Wait until the function block MB_Home has been processed by the control or use function block MC_Stop to switch the axis to "Standstill" state. Then enable the desired motion command.

3.5.217 F0220208, Invalid command number

Display: F0220208

Non-fatal error, Access_Error

A movement command is generated in the PLC-Program by a function block. When generating the command, the function block obtains a command number from the control kernel. When reading the command status, the function block assigns the command number as reference to the command. The assigned command number is invalid, resp. obsolete.

Cause: In the PLC-Program the status of a movement command was prompted by a function block. The assigned command number is invalid, resp. obsolete.

Remedy: Actualize the PLC-Program.

3.5.218 F0220210, Reset still 'ErrorStop'

Display: F0220210

Non-fatal error, State_Machine_Error

The function block MC_Reset is used to generate the command "Error deletion" in the PLC program.

The pending error cannot be deleted.

Cause: The function block MC_Reset is used to generate the command "Error deletion" in the PLC program. The pending error could not be deleted.

Solution: Eliminate the cause of the error and then acknowledge the error.

3.5.219 F0220211, Command rejected while 'Diskrete Motion'

Display: F0220211

Non-fatal error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis is in "Discrete Motion" state. The requested motion command and the enabled function block are not permitted in "Discrete Motion" state (see the Axis type status diagram).

Cause: An unauthorized motion command was generated for an axis in the "Discrete Motion" state in the PLC program.

Solution: Enable the desired motion command after the control has executed the current Motion command and the axis has been switched to "Standstill" state or switch the axis to "Standstill" state using function block MC_Stop. Then enable the desired motion command.

3.5.220 F0220212, Command rejected while 'Continuous Motion'

Display: F0220212

Non-fatal error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis is in "Continuous Motion" state. The requested motion command and the enabled function block are not permitted in "Continuous Motion" state (see the Axis type status diagram).

Cause: An unauthorized motion command is generated for an axis in the "Continuous Motion" state in the PLC program.

Solution: Using function block MC_Stop, switch the axis to "Standstill" state and then enable the desired motion command.

3.5.221 F0220213, Command rejected while 'Synchronized Motion'

Display: F0220213

Non-fatal error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis is in "Synchronized Motion" state. The requested motion command and the enabled block are not permitted in "Synchronized Motion" state (see the Axis type status diagram).

Cause: An unauthorized motion command was generated for an axis in the "Synchronized Motion" state in the PLC program.

Solution: Using function blocks MC_GearOut, MC_CamOut or MC_Stop, switch the axis to "Continuous Motion" or "Standstill" state. Then enable the desired motion command.

3.5.222 F0220214, Command rejected while 'ErrorStop'

Display: F0220214

Non-fatal error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis has detected an error and switched to "Errorstop" state. The requested motion command and the enabled function block are not permitted in "Errorstop" state (see the Axis type status diagram).

Cause: An unauthorized motion command was generated for an axis in "Errorstop" state in the PLC program.

MLC_TABLE Diagnostics

Solution: Delete the pending axis error or, using function block MC_Reset, switch the axis to "Standstill" state. Then enable the desired motion command.

3.5.223 F0220216, No power available

Display: F0220216

Non-fatal error, Access_Error

A command that cannot be executed by the addressed axis is generated in the PLC program.

The axis torque cannot be switched on by the function block MC_Power. Power is not connected to the drive controller (see Drive documentation).

Cause: Power is not connected to the drive controller.

Solution: Check the drive controller or its power supply (see Drive documentation).

3.5.224 F0220217, Command rejected while 'StandStill' and 'PowerOn'

Display: F0220217

Non-fatal error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis is in "Standstill" / "PowerOn" state. The requested motion command or the enabled function block are not permitted in "Standstill" state (for instances MC_CamOut, MC_GearOut).

Cause: An unauthorized motion command was generated for an axis in the "Standstill" / "PowerOn" state in the PLC program.

Solution: Update the PLC program.

3.5.225 F0220218, Command rejected while 'StandStill'

Display: F0220218

Non-fatal error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis is in "Standstill" state. The requested motion command or the enabled function block are not permitted in "Standstill" state (see the Axis type status diagram).

Cause: An unauthorized motion command was generated for an axis in the "Standstill" state in the PLC program.

Solution: Update the PLC program.

3.5.226 F0220223, Velocity below minimum

Display: F0220223

Non-fatal error, Input_Range_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis. The velocity for the required movement command, resp. the activated function block is less than the permitted minimum value in parameter commanded velocity (see parameter "A-0-2202, Commanded velocity").

Cause: In the PLC-Program a movement command for an axis was generated with invalid parameters.

Remedy: Actualize the PLC-Program.

3.5.227 F0220224, Velocity above maximum

Display: F0220224

Non-fatal error, Input_Range_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis. The velocity for the required movement command, resp. the activated function block is greater than the permitted

MLC_TABLE Diagnostics

maximum value in parameter commanded velocity (see parameter "A-0-2202, Commanded velocity").

Cause: In the PLC-Program a movement command for an axis was generated with invalid parameters.

Remedy: Actualize the PLC-Program.

3.5.228 F0220225, Acceleration below minimum

Display: F0220225

Non-fatal error, Input_Range_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis. The acceleration for the required movement command, resp. the activated function block is less than the permitted minimum value in parameter commanded acceleration (see parameter "A-0-2203, Commanded acceleration").

Cause: In the PLC-Program a movement command for an axis was generated with invalid parameters.

Remedy: Actualize the PLC-Program.

3.5.229 F0220226, Acceleration above maximum

Display: F0220226

Non-fatal error, Input_Range_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis. The acceleration for the required movement command, resp. the activated function block is greater than the permitted maximum value in parameter commanded acceleration (see parameter "A-0-2203, Commanded acceleration").

Cause: In the PLC-Program a movement command for an axis was generated with invalid parameters.

Remedy: Actualize the PLC-Program.

3.5.230 F0220227, Deceleration below minimum

Display: F0220227

Non-fatal error, Input_Range_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis. The deceleration for the required movement command, resp. the activated function block is less than the permitted minimum value in parameter commanded deceleration (see parameter "A-0-2204, Commanded deceleration").

Cause: In the PLC-Program a movement command for an axis was generated with invalid parameters.

Remedy: Actualize the PLC-Program.

3.5.231 F0220228, Deceleration above maximum

Display: F0220228

Non-fatal error, Input_Range_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis. The deceleration for the required movement command, resp. the activated function block is greater than the permitted maximum value in parameter commanded deceleration (see parameter "A-0-2204, Commanded deceleration").

Cause: In the PLC-Program a movement command for an axis was generated with invalid parameters.

Remedy: Actualize the PLC-Program.

MLC_TABLE Diagnostics

3.5.232 F0220229, Jerk below minimal

Display: F0220229

Non-fatal error, INPUT_RANGE_ERROR

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The jerk (A-0-0216) for the required movement command or the activated function block is less than the allowable minimum value.

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Remedy: Update the PLC program.

3.5.233 F0220230, Jerk above maximum

Display: F0220230

Non-fatal error, INPUT_RANGE_ERROR

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The jerk (A-0-0216) for the required movement command or the activated function block is greater than the allowable maximum value.

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Remedy: Update the PLC program.

3.5.234 F0220232, Invalid master control number

Display: F0220232

Non-fatal error, Resource_Error

A variable of the type AXIS_REF is used in the PLC program that addresses a master axis in a remote control.

This present firmware version only supports access to local control axes.

Cause: A master axis of a remote control was addressed in the PLC program.

Solution: Update the PLC program.

3.5.235 F0220233, Invalid master axis number

Display: F0220233

Non-fatal error, Resource_Error

A variable of the type AXIS_REF is used in the PLC program that addresses a master axis unknown in the control.

Cause: An unknown axis was addressed in the PLC program.

Solution: Update the PLC program or configure the missing axis in the control (see parameter "C-0-0484, Axes configuration list").

3.5.236 F0220234, Invalid CamTable ID

Display: F0220234

Non-fatal error, Resource_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The required cam (CAMTableID) is unknown (refer to Description of data type MC_CAM_ID and parameter "A-0-2740, ELS, CamIn, cam table preselection").

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

Upload a correct cam.

3.5.237 F0220263, RatioNumerator below minimum

Display: F0220263

Non-fatal error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The master drive gear input revolutions (RatioNumerator) for the requested motion command or the enabled function block are less than the permitted minimum value in parameter "A-0-2720, ELS, master axis gear, input revolutions".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.5.238 F0220264, RatioNumerator above maximum

Display: F0220264

Non-fatal error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The master drive gear input revolutions (RatioNumerator) for the requested motion command or the enabled function block are greater than the permitted maximum value in parameter "A-0-2720, ELS, master axis gear, input revolutions".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.5.239 F0220265, RatioDenominator below minimum

Display: F0220265

Non-fatal error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The master drive gear output revolutions (RatioDenominator) for the requested motion command or the enabled function block are less than the permitted minimum value in parameter "A-0-2721, ELS, master axis gear, output revolutions".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.5.240 F0220266, RatioDenominator above maximum

Display: F0220266

Non-fatal error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The master drive gear output revolutions (RatioDenominator) for the requested motion command or the enabled function block are greater than the permitted maximum value in parameter "A-0-2721, ELS, master axis gear, output revolutions".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

MLC_TABLE Diagnostics

3.5.241 F0220267, MasterFineAdjust below minimum

Display: F0220267

Non-fatal error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The gear ratio fine adjust (MasterFineadjust) for the requested motion command or the enabled function block is less than the permitted minimum value in parameter "A02722, ELS, gear ratio fine adjust".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.5.242 F0220268, MasterFineAdjust above maximum

Display: F0220268

Non-fatal error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The gear ratio fine adjust (MasterFineadjust) for the requested motion command or the enabled function block is greater than the permitted maximum value in parameter "A02722, ELS, gear ratio fine adjust".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.5.243 F0220269, Invalid SyncMode

Display: F0220269

Non-fatal error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The required synchronization direction (SyncMode) is unknown (refer to Description of data type MC_SYNC_DIRECTION).

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.5.244 F0220270, Invalid StartMode

Display: F0220270

Non-fatal error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The required type of synchronization (StartMode) is unknown (refer to Description of data type MC_START_MODE).

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.5.245 F0220271, Cam distance below minimum value

Display: F0220271

Non-fatal error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The cam distance (CamShaftDistance) for the requested motion command or the enabled function block is less than the permitted minimum value in parameter "A02741, ELS, CamIn, cam distance".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.5.246 F0220272, Cam distance above maximum value

Display: F0220272

Non-fatal error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The cam distance (CamShaftDistance) for the requested motion command or the enabled function block is greater than the permitted maximum value in parameter "A02741, ELS, CamIn, cam distance".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.5.247 F0220273, Command rejected while 'Parameter Mode'

Display: F0220273

Non-fatal error, Other_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis. The control and all axes are in parameter mode. In parameter mode no movement commands are executable.

Cause: In the PLC-Program a movement command was generated, although the control is in parameter mode.

Remedy: Switch the control to operating mode and subsequently activate the desired movement command.

3.5.248 F0220274, Axis not referenced

Display: F0220274

Non-fatal error, Other_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program. The axis is not homed and can only be moved relatively.

Cause: A motion command was generated in the PLC program for an axis without position reference that requires the position reference of the axis.

Solution: Home the axis using function block MB_Home or parameter "A-0-2807, Command: Set absolute measuring" and then enable the required motion command.

3.5.249 F0220275, Command aborted

Display: F0220275

Non-fatal error, Other_Error

In the PLC-Program a movement command is generated and aborted during execution. This command must not be aborted.

Cause: In the PLC-Program a movement command is generated and aborted during execution. This command must not be aborted.

Remedy: Actualize the PLC-Program.

3.5.250 F0220276, Control error

Display: F0220276

Non-fatal error, System_Error

The axis is stopped because of a control error. An ongoing motion command in the PLC - program will be aborted. The control doesn't accept any further motion command.

MLC_TABLE Diagnostics

Remedy: Correct and quit the error of the control. Subsequently activate the desired movement command again.

3.5.251 F0220277, Direct master axis change

Display: F0220277

Non-fatal error, Other_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The command requests the axis to follow a master axis (e.g. MC_CamIn or MC_GearIn). The axis is already following another master axis. The direct switchover to a new master axis is not supported in this firmware version.

Cause: A motion command was generated in the PLC program that requires a direct change of master axis from the axis.

Solution: Disconnect the axis from the original master axis (for instance using MC_CamOut or MC_GearOut). Then enable the desired motion command.

3.5.252 F0220278, Command 'Disabled axis' active

Display: F0220278

Non-fatal error, Access_Error

The axis was switched to the "disabled" state using the parameter "A-0-0024, Axis state". A disabled axis cannot execute motion commands.

Cause: A motion command for a disabled axis was generated in the PLC program.

Solution: Switch the control to parameterization mode (parameter C-0-0451, Motion, target mode). Enable the axis subsequently or use the functionality "Command value decoupling" (parameter A-0-0024, Axis state). Subsequently, restart the desired motion command.

3.5.253 F0220279, Command 'parking axis' active

Display: F0220279

Non-fatal error, Access_Error

The axis was switched to "parked" state using parameter "A-0-0024, Axis condition". A parked axis cannot execute motion commands.

Cause: A motion command for a parked axis was generated in the PLC program.

Solution: Switch the control to parameterization mode (parameter C-0-0451, Motion, target mode) and enable the axis (parameter A-0-0024, Axis condition). Then restart the desired motion command.

3.5.254 F0220280, Command rejected while 'Coordinated Motion'

Display: F0220280

Non-fatal error, System_Error

Following the successful call of MC_AddAxisToGroup, the axis is in the "Coordinated Motion" state.

The following function modules can be used in this state:

- all kinematics function blocks
- MC_Reset

All other FBs result in the error described above.

Cause: An unauthorized motion command was generated for an axis in the "Coordinated Motion" state in the PLC program.

Solution: Update the PLC program.

3.5.255 F0220281, Invalid float data

Display: F0220281

Non-fatal error, System_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis.

MLC_TABLE Diagnostics

At least one input parameter of a function block contains an invalid floating point value.

Cause: In the PLC-Program a movement command for an axis was generated with invalid parameters.

Remedy: Actualize the PLC-Program.

3.5.256 F0220282, MotionProfile, SetSelection below minimum value

Display: F0220282

Non-fatal error, System_Error

A motion command "MotionProfile" that cannot be executed by the addressed axis is generated in the PLC program.

Cause: The input value "SetSelection" was assigned a value of less than the minimum value (currently 0).

Remedy: Update the PLC program.

3.5.257 F0220283, MotionProfile, SetSelection above maximum value

Display: F0220283

Non-fatal error, System_Error

A motion command "MotionProfile" that cannot be executed by the addressed axis is generated in the PLC program.

Cause: The input value "SetSelection" was assigned a value of greater than 1.

Remedy: Update the PLC program.

3.5.258 F0220287, Unreferenced cam table object

Display: F0220287

Non-fatal error, Access_Error

The function block MB_ChangeCamData is used in the PLC program to initiate a change of a cam that cannot be executed by the control.

Cause: There is an internal problem with the control firmware when accessing the cam.

Remedy: Contact customer service.

3.5.259 F0220288, ChangeCamTable: above maximum value

Display: F0220288

Non-fatal error, Input_Range_Error

The function block MB_ChangeCamData is used in the PLC program to initiate a change of a cam that cannot be executed by the control.

Cause: At least one of the homed input values "pdiCamTable" is above the permitted maximum value.

Remedy: Update the PLC program.

3.5.260 F0220289, ChangeCamTable: below minimum value

Display: F0220289

Non-fatal error, Input_Range_Error

The function block MB_ChangeCamData is used in the PLC program to initiate a change of a cam that cannot be executed by the control.

Cause: At least one of the homed input values "pdiCamTable" is below the permitted minimum value.

Remedy: Update the PLC program.

3.5.261 F0220290, ChangeCamTable: invalid ID

Display: F0220290

Non-fatal error, Access_Error

The function block MB_ChangeCamData is used in the PLC program to initiate a change of a cam that cannot be executed by the control.

MLC_TABLE Diagnostics

Cause: The input value "uiCamTableNumber" was assigned a value that is greater than the maximum number (99) of supported control cams. Or 0 was written as the input value.

Remedy: Update the PLC program.

3.5.262 F0220291, Unreferenced MotionProfile object

Display: F0220291

Non-fatal error, Access_Error

The function blocks MB_ChangeMotionProfileSet or MB_ChangeMotionProfileStep are used in the PLC program to initiate a change of a MotionProfile that cannot be executed by the addressed axis.

Cause: There is an internal problem with the control firmware when accessing the MotionProfile.

Remedy: Contact customer service.

3.5.263 F0220292, ChangeMotionProfileSet: SetNumber below minimum value

Display: F0220292

Non-fatal error, Input_Range_Error

The function blocks MB_ChangeMotionProfileSet or MB_ChangeMotionProfileStep are used in the PLC program to initiate a change of a MotionProfile that cannot be executed by the addressed axis.

Cause: At least one of the transmitted (homed) input values "(p)rMasterAxisInitialPos" and/or "(p)rSlaveAxisVelocity/Adr" is below the permitted minimum value.

Remedy: Update the PLC program.

3.5.264 F0220293, ChangeMotionProfileSet: SetNumber above maximum value

Display: F0220293

Non-fatal error, Input_Range_Error

The function blocks MB_ChangeMotionProfileSet or MB_ChangeMotionProfileStep are used in the PLC program to initiate a change of a MotionProfile that cannot be executed by the addressed axis.

Cause: The input value "uiSetNumber" was assigned a value of greater than 1.

Remedy: Update the PLC program.

3.5.265 F0220294, ChangeMotionProfileSet: Selected profile write-protected

Display: F0220294

Non-fatal error, Access_Error

The function blocks MB_ChangeMotionProfileSet or MB_ChangeMotionProfileStep are used in the PLC program to initiate a change of a MotionProfile that cannot be executed by the addressed axis.

Cause: The selected MotionProfile is currently active and cannot therefore be overwritten.

Remedy: Disable the selected MotionProfile before carrying out the update.

3.5.266 F0220295, ChangeMotionProfileStep, invalid StepNumber

Display: F0220295

Non-fatal error, Access_Error

The function block MB_ChangeMotionProfileStep is used in the PLC program to initiate a change of a MotionProfile that cannot be executed by the addressed axis.

Cause: The input value "uiStepNumber" was assigned a value that is greater than the maximum or the current number of steps of the selected MotionProfile.

Remedy: Update the PLC program.

3.5.267 F0220300, Invalid command channel

Display: F0220300

Non-fatal error, Access_Error

An invalid command channel is selected in the PLC program using the function module MB_OpenCyclic...

Cause: Firmware version and PLC library (ML_PLCOpen.lib, MLBase.lib) do not match.

Remedy: Use the corresponding PLC library version for the firmware.

3.5.268 F0220301, Command rejected while 'Controlled Motion'

Display: F0220301

Non-fatal error, Access_Error

After the successful call of ML_ControlOn, the axis is in the "Controlled Motion" state.

The following function modules can be used in this state:

- ML_OpenCyclicPositionChannelCtrl,
- ML_OpenCyclicVelocityChannelCtrl,
- ML_OpenCyclicTorqueChannelCtrl,
- ML_OpenCyclicAnalogChannelCtrl,
- ML_ControlOff.

All other FBs result in the error described above.

Cause: An unauthorized motion command was generated in the PLC program for an axis in the "Controlled Motion" state.

Solution: Update the PLC program.

3.5.269 F0220316, ChangeFlexProfile: Length of FlexProfile lists inconsist.

Display: F0220316

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Cause: Depending on whether the error is in block 0, block 1, block 2 or block 3, the list length of the parameters that define a MotionProfile is not consistent.

Block 0

- A-0-3020, FlexProfile 0, master axis velocity,
- A-0-3021, FlexProfile 0, list of master axis sources,
- A-0-3022, FlexProfile 0, list of slave axis distances,
- A-0-3023, FlexProfile 0, list of master axis ranges,
- A-0-3025, FlexProfile 0, list of motion laws,
- A-0-3026, FlexProfile 0, list of motion step types,
- A-0-3027, FlexProfile 0, list of slave axis starting velocities,
- A-0-3028, FlexProfile 0, list of slave axis starting accelerations,
- A-0-3029, FlexProfile 0, list of slave axis starting jerks,
- A-0-3030, FlexProfile 0, list of slave axis end velocities,
- A-0-3031, FlexProfile 0, list of slave axis end accelerations,
- A-0-3032, FlexProfile 0, list of slave axis end jerks,
- A-0-3033, FlexProfile 0, list of slave axis travel velocities,

MLC_TABLE Diagnostics

- A-0-3034, FlexProfile 0, list of slave axis travel accelerations,
- A-0-3035, FlexProfile 0, list of slave axis travel jerks,
- A-0-3036, FlexProfile 0, list of turning point displacements (WPV),

Block 1

- A-0-3050, FlexProfile 1, master axis velocity,
- A-0-3051, FlexProfile 1, list of master axis sources,
- A-0-3052, FlexProfile 1, list of slave axis distances,
- A-0-3053, FlexProfile 1, list of master axis ranges,
- A-0-3055, FlexProfile 1, list of motion laws,
- A-0-3056, FlexProfile 1, list of motion step types,
- A-0-3057, FlexProfile 1, list of slave axis starting velocities,
- A-0-3058, FlexProfile 1, list of slave axis starting accelerations,
- A-0-3059, FlexProfile 1, list of slave axis starting jerks,
- A-0-3060, FlexProfile 1, list of slave axis end velocities,
- A-0-3061, FlexProfile 1, list of slave axis end accelerations,
- A-0-3062, FlexProfile 1, list of slave axis end jerks,
- A-0-3063, FlexProfile 1, list of slave axis travel velocities,
- A-0-3064, FlexProfile 1, list of slave axis travel accelerations,
- A-0-3065, FlexProfile 1, list of slave axis travel jerks,
- A-0-3066, FlexProfile 1, list of turning point displacements (WPV),

Block 2

- A-0-3080, FlexProfile 2, master axis velocity,
- A-0-3081, FlexProfile 2, list of master axis sources,
- A-0-3082, FlexProfile 2, list of slave axis distances,
- A-0-3083, FlexProfile 2, list of master axis ranges,
- A-0-3085, FlexProfile 2, list of motion laws,
- A-0-3086, FlexProfile 2, list of motion step types,
- A-0-3087, FlexProfile 2, list of slave axis starting velocities,
- A-0-3088, FlexProfile 2, list of slave axis starting accelerations,
- A-0-3089, FlexProfile 2, list of slave axis starting jerks,
- A-0-3090, FlexProfile 2, list of slave axis end velocities,
- A-0-3091, FlexProfile 2, list of slave axis end accelerations,
- A-0-3092, FlexProfile 2, list of slave axis end jerks,
- A-0-3093, FlexProfile 2, list of slave axis travel velocities,
- A-0-3094, FlexProfile 2, list of slave axis travel accelerations,
- A-0-3095, FlexProfile 2, list of slave axis travel jerks,
- A-0-3096, FlexProfile 2, list of turning point displacements (WPV),

Block 3

- A-0-3110, FlexProfile 3, master axis velocity,
- A-0-3111, FlexProfile 3, list of master axis sources,
- A-0-3112, FlexProfile 3, list of slave axis distances,
- A-0-3113, FlexProfile 3, list of master axis ranges,

- A-0-3115, FlexProfile 3, list of motion laws,
- A-0-3116, FlexProfile 3, list of motion step types,
- A-0-3117, FlexProfile 3, list of slave axis starting velocities,
- A-0-3118, FlexProfile 3, list of slave axis starting accelerations,
- A-0-3119, FlexProfile 3, list of slave axis starting jerks,
- A-0-3120, FlexProfile 3, list of slave axis end velocities,
- A-0-3121, FlexProfile 3, list of slave axis end accelerations,
- A-0-3122, FlexProfile 3, list of slave axis end jerks,
- A-0-3123, FlexProfile 3, list of slave axis travel velocities,
- A-0-3124, FlexProfile 3, list of slave axis travel accelerations,
- A-0-3125, FlexProfile 3, list of slave axis travel jerks,
- A-0-3126, FlexProfile 3, list of turning point displacements (WPV),

Solution: Update the PLC program and/or correct the selected MotionProfile.

3.5.270 F0220317, ChangeFlexProfile: No steps in profile

Display: F0220317

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 64 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Cause: No MotionSteps have been defined. An empty MotionProfile cannot be applied.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.271 F0220318, ChangeFlexProfile: Unknown master

Display: F0220318

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: An invalid value was specified for the master source.

A list of invalid motion laws can be found in the description of parameter "A-0-3021, FlexProfile 0, list of master axis sources" and the enumeration type MB_MASTER_TYPE.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.272 F0220319, ChangeFlexProfile: Motion law unknown

Display: F0220319

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

MLC_TABLE Diagnostics

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: An invalid motion law was specified.

A list of valid motion laws can be found in the description of parameter "A-0-3025, FlexProfile 0, list of motion laws" and the enumeration type MB_STEP_TYPE.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.273 F0220320, ChangeFlexProfile: Step mode unknown

Display: F0220320

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: An invalid motion step type was specified.

A list of valid motion laws and their description can be found in the description of parameter "A-0-3026, FlexProfile 0, list of motion step types" and the enumeration type MB_STEP_TYPE.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.274 F0220321, ChangeFlexProfile: Step range 0 or negative

Display: F0220321

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: An invalid master axis range was specified.

The master axis range may not be 0 or negative.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.275 F0220322, ChangeFlexProfile: Invalid comb. of boundary value types

Display: F0220322

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: An invalid boundary value combination was specified.

The motion law of the following motion step cannot be combined with this motion step. This can occur, for instance, if the current motion law is a rest-to-rest law and the following motion law is a velocity-in-rest type.

A list of valid motion laws and their description can be found in the description of parameter "A-0-3026, FlexProfile 0, list of motion step types" and the enumeration type MB_STEP_TYPE.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.276 F0220323, ChangeFlexProfile: Invalid boundary values

Display: F0220323

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: Invalid boundary values were specified.

Boundary values were specified for a motion step that do not support the selected motion law. It is therefore not possible, for example, to give a start or end velocity for a rest-in-rest motion law. These must be defined with 0 in this case.

A list of valid motion laws and their description can be found in the description of parameter "A-0-3026, FlexProfile 0, list of motion step types" and the enumeration type MB_STEP_TYPE.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.277 F0220324, ChangeFlexProfile: Invalid Hub

Display: F0220324

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

MLC_TABLE Diagnostics

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: An invalid distance was specified.

A distance was parameterized for a motion step that is invalid or is not permitted in conjunction with the selected motion law.

A list of valid motion laws and their description can be found in the description of parameter "A-0-3026, FlexProfile 0, list of motion step types" and the enumeration type MB_STEP_TYPE.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.278 F0220325, ChangeFlexProfile: Invalid value for turnaround point disp

Display: F0220325

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: An invalid value was specified for the turning point displacement.

A turning point displacement was parameterized for a motion step that is invalid or is not permitted in conjunction with the selected motion law.

A list of valid motion laws and their description can be found in the description of parameter "A-0-3026, List of motion step types, FlexProfile 0" and the enumeration type MB_STEP_TYPE. Further information on turning point displacement can be found in the parameter "A-0-3036, FlexProfile 0, list of turning point displacements".

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.279 F0220326, ChangeFlexProfile: Invalid slope

Display: F0220326

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: An invalid value was specified for the turning point displacement.
"Constant velocity" has been parameterized as motion law for a motion step. The specified start and end velocity do not match the velocity resulting from the distance and the master axis section of the motion step.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.280 F0220327, ChangeFlexProfile: Invalid Cam table

Display: F0220327

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: A cam point table was selected for a motion step that cannot be travelled. The cam possibly contains no points.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.281 F0220328, ChangeFlexProfile: Motion law + selected step mode

Display: F0220328

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: The motion law selected in a motion step cannot be used if this was defined as a FlexStep.

If "FlexStep with absolute distance and absolute master axis range", "FlexStep with relative distance and absolute master axis range", "FlexStep with absolute distance and relative master axis range" or "FlexStep with relative distance and relative master axis range" are selected as the "step type" instead of "StandardStep", then not all motion laws can be used in this step. A possible motion law is the "General Polynomial 5th order".

A list of valid motion laws and their description can be found in the description of parameter "A-0-3026, FlexProfile 0, list of motion step types" and the enumeration type MB_STEP_TYPE.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.282 F0220329, ChangeFlexProfile: Velocity jump in profile

Display: F0220329

Non-fatal error, Access_Error

MLC_TABLE Diagnostics

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: A velocity jump was parameterized within the MotionProfile, i.e. the end velocity of the incorrect motion step is not consistent with the starting velocity of the following motion step.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.283 F0220330, ChangeFlexProfile: Acceleration jump in profile

Display: F0220330

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: An acceleration jump was parameterized within the MotionProfile, i.e. the end velocity of the incorrect motion step is not consistent with the starting acceleration of the following motion step.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.284 F0220331, ChangeFlexProfile: Jerk jump in profile

Display: F0220331

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: A jerk jump was parameterized within the MotionProfile, i.e. the end jerk of the incorrect motion step is not consistent with the starting jerk of the following motion step.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.285 F0220332, ChangeFlexProfile: Velocity limit invalid

Display: F0220332

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: Too low or invalid travel velocities were specified.

Either a travel velocity was specified for a motion step, although it is not supported by the selected motion law, or the specified travel velocity is too low to execute the required motion.

A list of valid motion laws and their description can be found in the description of parameter "A-0-3026, FlexProfile 0, list of motion step types" and the enumeration type MB_STEP_TYPE. Parameter "A-0-3033, FlexProfile 0, list of slave axis travel velocities" defines the required travel velocity.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.286 F0220333, ChangeFlexProfile: Acceleration limit invalid

Display: F0220333

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: Too low or an invalid travel acceleration was specified.

Either a travel acceleration was specified for a motion step, although it could not be supported by the selected motion law, or the specified travel acceleration is too low to execute the required motion.

A list of valid motion laws and their description can be found in the description of parameter "A-0-3026, FlexProfile 0, list of motion step types" and the enumeration type MB_STEP_TYPE. Parameter "A-0-3034, FlexProfile 0, list of slave axis travel accelerations" defines the required travel acceleration.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.287 F0220334, Unreferenced FlexProfile object

Display: F0220334

Non-fatal error, Access_Error

Either the function block MB_ChangeFlexProfileSet or MB_ChangeFlexEventSet is used in the PLC program to initiate a change of a MotionProfile that cannot be executed by the addressed axis.

MLC_TABLE Diagnostics

Cause: There is a control firmware problem when accessing the MotionProfile.

Remedy: Check the axis configuration. Does the addressed axis exist and does it support the execution of the FlexProfile operation mode?

Check the axis addressing at the function block.

Contact the customer service.

3.5.288 F0220335, FlexProfile: Set is write-protected

Display: F0220335

Non-fatal error, Access_Error

The selected profile cannot be applied.

Cause: The selected motion profile is currently active and can therefore not be overwritten.

Remedy: Deactivate the selected motion profile before carrying out the update.

3.5.289 F0220341, FlexEvent: Set is write-protected

Display: F0220341

Non-fatal error, Access_Error

A change in the event definitions of a FlexProfile MotionProfile that cannot be executed by the addressed axis is initiated in the PLC program using the function block MB_ChangeFlexEventSet.

Cause: The selected MotionProfile is currently active and cannot therefore be overwritten.

Remedy: Disable the selected MotionProfile before carrying out the update.

3.5.290 F0220343, ChangeFlexEvent: Length of FlexProfile lists inconsistent

Display: F0220343

Non-fatal error, Access_Error

The control checks whether the defined EventProfile (a maximum of 16 single events) is plausible when writing a FlexProfile EventProfile. The error is generated if the plausibility checks failed.

Cause: Depending on whether the error is in block 0, block 1, block 2 or block 3, the list length of the parameters that define an EventProfile is not consistent.

Block 0

- A-0-3040, FlexProfile 0, events, list of motion step assignments,
- A-0-3041, FlexProfile 0, events, list of trigger modes,
- A-0-3042, FlexProfile 0, events, list of trigger modes and
- A-0-3043, FlexProfile 0, events, list of trigger values.

Block 1

- A-0-3070, FlexProfile 1, events, list of motion step assignments,
- A-0-3071, FlexProfile 1, events, list of trigger modes,
- A-0-3072, FlexProfile 1, events, list of trigger modes and
- A-0-3073, FlexProfile 1, events, list of trigger values.

Block 2

- A-0-3100, FlexProfile 2, events, list of motion step assignments,
- A-0-3101, FlexProfile 2, events, list of trigger modes,
- A-0-3102, FlexProfile 2, events, list of trigger modes and
- A-0-3103, FlexProfile 2, events, list of trigger values.

Block 3

- A-0-3130, FlexProfile 3, events, list of motion step assignments,

- A-0-3131, FlexProfile 3, events, list of trigger modes,
- A-0-3132, FlexProfile 3, events, list of trigger modes and
- A-0-3133, FlexProfile 3, events, list of trigger values.

Solution: Update the PLC program and/or correct the selected EventProfile.

3.5.291 F0220344, ChangeFlexEvent: Step Number assignment is invalid

Display: F0220344

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Cause: A FlexProfile event was defined and assigned to a motion step that does not exist in the assigned MotionProfile.

Further information about the assignment of events to the motion steps can be found in parameter "A-0-3040, FlexProfile 0, Events, list of motion step assignments" and in the description of the structure type MB_FLEX_EVENT.

Solution: Update the PLC program and/or correct the selected EventProfile.

3.5.292 F0220345, ChangeFlexEvent: Trigger-Mode is invalid

Display: F0220345

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect event, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: A FlexProfile event was defined in which an invalid trigger mode was parameterized.

Further information about the trigger modes of events can be found in parameter "A-0-3041, FlexProfile 0, Events, list of trigger modes " and in the description of the structure type MB_FLEX_EVENT.

Solution: Update the PLC program and/or correct the selected EventProfile.

3.5.293 F0220346, ChangeFlexEvent: Action-Mode is invalid

Display: F0220346

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect event, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

MLC_TABLE Diagnostics

Cause: A FlexProfile event was defined in which an invalid action mode was parameterized.

Further information about the trigger modes of events can be found in parameter "A-0-3042, FlexProfile 0, Events, list of action modes " and in the description of the structure type MB_FLEX_EVENT.

Solution: Update the PLC program and/or correct the selected EventProfile.

3.5.294 F0220349, ChangeFlexProfile: Jerk limit invalid

Display: F0220349

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: Too low or an invalid travel acceleration was specified.

Either a travel jerk was specified for a motion step, although it could not be supported by the selected motion law, or the specified travel jerk is too low to execute the required motion.

A list of valid motion laws and their description can be found in the description of parameter "A-0-3026, FlexProfile 0, list of motion step types" and the enumeration type MB_STEP_TYPE. Parameter "A-0-3035, FlexProfile 0, list of slave axis travel jerks" defines the required travel acceleration.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.295 F0220350, ChangeFlexProfile: Limit too low

Display: F0220350

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: A motion law was selected for a motion step that provides a maximum travel velocity, travel acceleration and/or travel jerk. The requested motion cannot however be achieved with the specified maximum values.

A list of valid motion laws and their description can be found in the description of parameter "A-0-3026, FlexProfile 0, list of motion step types" and the enumeration type MB_STEP_TYPE.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.296 F0220355, ChangeFlexProfile: Invalid sequence of Flex-Steps

Display: F0220355

Non-fatal error, Access_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: Within the MotionProfile, an invalid sequence of FlexSteps was parameterized, that is several "FlexSteps" were placed behind each other. However, a "FlexStep" must always be enclosed by two "Standard steps". The reason for this is that a motion step defined as a "FlexStep" does not have proprietary defined limit values, such as starting and end velocities and instead it uses the limit values of its neighboring steps at runtime that must be in the form of "Standard steps".

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.297 F0220360, Command rejected while 'Controlled Motion'

Display: F0220360

Non-fatal error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis is in the "Controlled Motion" state. The requested motion command and the enabled function block are not permitted in the "Controlled Motion" state (see the Axis type status diagram).

Cause: An unauthorized motion command was generated in the PLC program for an axis in the "Controlled Motion" state.

Solution: Enable the desired motion command after the control has executed the current Motion command and the axis has been switched to "Standstill" state or switch the axis to "Standstill" state using function block MC_Stop. Then enable the desired motion command.

3.5.298 F0220361, ChangeFlexProfile: Invalid master axis source

Display: F0220361

Non-fatal error, Input_Range_Error

The control checks whether the defined MotionProfile (a maximum of 16 single motion steps) is plausible when writing a FlexProfile MotionProfile. The error is generated if the plausibility checks failed.

Depending on whether the error is in block 0, block 1, block 2 or block 3, the following information, such as the incorrect motion step, is displayed in the following parameters:

- Block 0, parameter "A-0-3047, FlexProfile 0, diagnostics"
- Block 1, parameter "A-0-3077, FlexProfile 1, diagnostics"
- Block 2, parameter "A-0-3107, FlexProfile 2, diagnostics"
- Block 3, parameter "A-0-3137, FlexProfile 3, diagnostics"

Cause: An invalid master axis source was specified.

MLC_TABLE Diagnostics

A list of valid master axis sources can be found in the description of parameter "A-0-3021, FlexProfile 0, list of master axis sources", (A-0-3051, A-0-3081, A-0-3111), and the enumeration type MB_MASTER_TYPE.

Solution: Update the PLC program and/or correct the corresponding MotionProfile.

3.5.299 F0220501, Wrong data type

Display: F0220501

Non-fatal error, Access_Error

The error was generated by one of the following function blocks as the type of parameter (list or single parameter) or REAL, DINT type is not consistent with the input of the function block.

Cause: The access error occurs when reading/writing a parameter data if the wrong function block has been selected.

Solution: Check the function block type in accordance with your required parameters.

Reading parameters:

	DINT	REAL	List of parameters
MB_ReadParameter	X		
MB_ReadRealParameter		X	
MB_ReadListParameter			X

Writing parameters:

	DINT	REAL	List of parameters
MB_WriteParameter	X		
MB_WriteRealParameter		X	
MB_WriteListParameter			X

3.5.300 F0220502, ProbeModule out of range

Display: F0220502

Non-fatal error, Access_Error

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "ProbeModule" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0005".

Solution: Update the PLC program.

3.5.301 F0220503, ProbeInput out of range

Display: F0220503

Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "ProbeInput" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0005".

Solution: Update the PLC program.

3.5.302 F0220504, ExpectWindowPosEdgeMode out of range

Display: F0220504

Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "ExpectWindowPosEdgeMode" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0007, bit 4".

Solution: Update the PLC program.

3.5.303 F0220505, ExpectWindowNegEdgeMode out of range

Display: F0220505 Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "ExpectWindowNegEdgeMode" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0007, bit 5".

Solution: Update the PLC program.

3.5.304 F0220506, ExpectWindowPosEdgeStart out of range

Display: F0220506 Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "ExpectWindowPosEdgeStart" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0202".

Solution: Update the PLC program.

3.5.305 F0220507, ExpectWindowPosEdgeEnd out of range

Display: F0220507 Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "ExpectWindowPosEdgeEnd" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0203".

Solution: Update the PLC program.

3.5.306 F0220508, ExpectWindowNegEdgeStart out of range

Display: F0220508 Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "ExpectWindowNegEdgeStart" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0204".

Solution: Update the PLC program.

3.5.307 F0220509, ExpectWindowNegEdgeEnd out of range

Display: F0220509 Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "ExpectWindowNegEdgeEnd" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0205".

Solution: Update the PLC program.

MLC_TABLE Diagnostics

3.5.308 F0220510, ExpectWindowPosEdgeSetPoint out of range

Display: F0220510

Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "ExpectWindowPosEdgeSetPoint" input for the requested measuring command or the enabled function block lies outside of the defined range.

Solution: Update the PLC program.

3.5.309 F0220511, ExpectWindowNegEdgeSetPoint out of range

Display: F0220511

Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "ExpectWindowNegEdgeSetPoint" input for the requested measuring command or the enabled function block lies outside of the defined range.

Solution: Update the PLC program.

3.5.310 F0220512, MarkerFailureEnable out of range

Display: F0220512

Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "MarkerFailureEnabl" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0007, bit 6".

Solution: Update the PLC program.

3.5.311 F0220513, MaxNumberOfMarkerFailure out of range

Display: F0220513

Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "MaxNumberOfMarkerFailure" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0206".

Solution: Update the PLC program.

3.5.312 F0220514, Interpolation out of range

Display: F0220514

Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "Interpolation" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0007, bit 10-11".

Solution: Update the PLC program.

3.5.313 F0220515, TimeStampEnable out of range

Display: F0220515

Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "TimeStampEnable" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0007, bit 3".

Solution: Update the PLC program.

3.5.314 F0220516, DeadTimePosEdge out of range

Display: F0220516

Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "DeadTimePosEdge" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0200".

Solution: Update the PLC program.

3.5.315 F0220517, DeadTimeNegEdge out of range

Display: F0220517

Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "DeadTimeNegEdge" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0201".

Solution: Update the PLC program.

3.5.316 F0220518, ProbeData out of range

Display: F0220518

Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "ProbeData" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0006".

Solution: Update the PLC program.

3.5.317 F0220519, PositionEvalMode out of range

Display: F0220519

Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "PositionEvalMode" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0007, bit 0-1".

Solution: Update the PLC program.

3.5.318 F0220520, DiffEvalMode out of range

Display: F0220520

Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "DiffEvalMode" input for the requested measuring command or the enabled function block lies outside of the range defined by the minimum and maximum values of the parameter "M-0-0007, bit 7-9".

Solution: Update the PLC program.

MLC_TABLE Diagnostics

3.5.319 F0220521, TOUCHPROBE_REF is not valid or wrong configuration

Display: F0220521

Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "TOUCHPROBE_REF" input for the requested measuring command or the enabled function block is invalid or not configured

Solution: Update the PLC program.

3.5.320 F0220522, AXIS_REF is not valid or wrong configuration of axis

Display: F0220522

Non-fatal error, INPUT_RANGE_ERROR

A measuring command that cannot be executed by the addressed touch probe is generated in the PLC program.

Cause: The "AXIS_REF" input for the requested measuring command or the enabled function block is invalid or not configured

Solution: Update the PLC program.

3.5.321 F0220600, Path / file name unknown

Display: F0220600

Non-fatal error, INPUT_RANGE_ERROR

A file name is specified in the PLC program that is unknown in the system.

Cause: A file name of a path with a file name that could not be found is specified at input "FileName".

Solution: Specify a valid file name or ensure that the file exists on the control.

3.5.322 F0220601, Unsupported file system

Display: F0220601

Non-fatal error, INPUT_RANGE_ERROR

A file name with a path is specified in the PLC program that is not supported.

Cause: A file name with an invalid path specification was specified at input "FileName".

Solution: Specify a valid path or only the file name (in this case the default path is used).

3.5.323 F0220602, Input 'StartIdx' has an invalid value

Display: F0220602

Non-fatal error, INPUT_RANGE_ERROR

An invalid value is transmitted in the PLC program.

Cause: An invalid value was entered at the "StartIdx" input.

Solution: Enter a valid value (≥ 1) at input "StartIdx".

3.5.324 F0220603, Invalid state of state machine

Display: F0220603

Non-fatal error, INPUT_RANGE_ERROR

An internal error occurred in the function module.

Cause: The module processes internally within different steps. It is to be jumped to a step that does not exist.

Remedy: Reset the module or reset the PLC.

3.5.325 F0220604, Error in file structure

Display: F0220604

Non-fatal error, INPUT_RANGE_ERROR

An error in the file structure was detected in the function module.

Cause: The function module opens a file and searches within the file. An error in the file structure was detected.

Remedy: Reload the file to the control using Indraworks.

3.5.326 F0220605, Input 'ArrayDimension' has an invalid value

Display: F0220605 Non-fatal error, INPUT_RANGE_ERROR

An invalid value is transmitted in the PLC program.

Cause: An incorrect value was entered at the "ArrayDimension" input.
The field specified via the point name contains a different number of dimensions that are specified at the function block.
Alternatively the "PointIdx" input can also contain an incorrect value. In this case the output "ErrorIdent.Additional2" contains a number that specifies the index in the "PointIdx" field which is incorrect.

Solution: Enter a correct value.

3.5.327 F0220606, Point not found

Display: F0220606 Non-fatal error, INPUT_RANGE_ERROR

A point name is specified in the PLC program that was not found in the specified file.

Cause: A point name was specified at input "PointName" that does not exist.

Solution: Specify a valid point name or ensure that the file containing the point also exists on the control.

3.5.328 F0220607, Wrong number of coordinates per point

Display: F0220607 Non-fatal error, INPUT_RANGE_ERROR

In the PLC program, a point is given with a different number of coordinates than is given in the file.

Cause: A value has been entered at the "Point" input in the "NbrOfValues" structural element that is not consistent with the number of coordinates of the point.

Solution: Enter a valid value for "NbrOfValues".

3.5.329 F0220608, Wrong number of kinematics

Display: F0220608 Non-fatal error, INPUT_RANGE_ERROR

A point is given in the PLC program that has a different kinematic number than is found in the file.

Cause: A value has been entered at the "Point" input in the "KinematicNbr" structural element that is not consistent with the number in the opened file.

Solution: Enter a valid value for "KinematicNbr".

3.5.330 F0220609, Wrong point type, point in world or joint coordinates

Display: F0220609 Non-fatal error, INPUT_RANGE_ERROR

A point is preset in the PLC program, which corresponds to a different type.

Cause: A value has been entered at the "Point" input in the "PointType" structural element that is not consistent with the type of the point.

Solution: Enter a valid value for "PointType". This can either be ML_RO-CO_WORLD_COORD for an point in world coordinates, or ML_RO-CO_JOINT_COORD for a point in axis coordinates.

MLC_TABLE Diagnostics

3.5.331 F0260001, MC_DigitalCamSwitch, Unable to acquire APS reference

Display: F0260001

Non-fatal error, System_Error

A non-fatal internal firmware error occurred.

Cause: A firmware error occurred.**Remedy:** Reload PLC program (no online change). If error persists, contact customer service.**3.5.332 F0260002, MC_DigitalCamSwitch, Unable to open cyclic channel**

Display: F0260002

Non-fatal error, System_Error

A non-fatal internal firmware error occurred.

Cause: A firmware error occurred. The cyclic channel can not be accessed by the function block.**Remedy:** Switch the control from parameter mode to operating mode. This will reinitialize the cyclic channel. If error persists, contact customer service.**3.5.333 F0260003, MC_DigitalCamSwitch, Unable to allocate memory**

Display: F0260003

Non-fatal error, Resource_Error

An internal firmware error occurred.

Cause: A firmware error occurred. There is no memory available for allocation.**Remedy:** Reload PLC program (no online change). This will release and reallocate all user program memory used by the PLC. If error persists, contact customer service.**3.5.334 F0260004, MC_DigitalCamSwitch, Unable to read parameter**

Display: F0260004

Non-fatal error, Communication_Error

An error has occurred while reading an axis parameter.

Cause: Axis parameters are read acyclically by the drive at the first rising edge of the "Enable" input and at a change of the AXIS_REF input. These are "A-0-0059, Scaling type for position data", "A-0-0056, Scaling type for velocity data" and "A-0-0045, Modulo value".

This error is triggered if one of these parameters could not be read.

Solution: Upload the PLC program again (without online change) or change the AXIS_REF input to repeat the process.

If the error occurs again, please contact customer service.

3.5.335 F0260005, MC_DigitalCamSwitch, Invalid combination of units

Display: F0260005

Non-fatal error, Input_Invalid_Error

The function block has recognized a discrepancy of the units.

Cause: The two axis parameters "A-0-0059, Scaling type for position data" and "A-0-0056, Scaling type for velocity data" are read acyclically by the drive at the first rising edge of the "Enable" input and at a change of AXIS_REF.

The following combinations are valid here:

Position has linear scaling:

- Position in meters, velocity in rpm or rps.
- Position in inches, velocity in rpm or rps.

Position has rotary scaling:

- Position in rad, velocity in rpm or rps.

All other combinations are not valid.

Solution: Ensure that the drive parameters (A-0-0056) and (A-0-0059) have the correct combinations.

3.5.336 F0260006, MC_DigitalCamSwitch, On-/Off compensation time longer 16s

Display: F0260006 Non-fatal error, Input_Invalid_Error

The function block detected an invalid value in inputs.

Cause: The lead / lag time for the individual switches is limited to a maximum time of 16 seconds.

Remedy: Make sure that the lead / lag time for any given switch is limited to less than 16 seconds.

3.5.337 F0260007, MC_DigitalCamSwitch, Invalid state of state machine

Display: F0260007 Non-fatal error, State_Machine_Error

An internal firmware error occurred. The internal state of the state machine is incorrect.

Cause: The function block is processed by a state machine. The state has accepted an invalid value.

Solution: Upload the PLC program again (no online change) If the error occurs again, please contact customer service.

3.5.338 F0260010, ML_PIDType01, Low limit is higher than High limit

Display: F0260010 Non-fatal error, Input_Invalid_Error

The input values of the PID controller have wrong values.

Cause: The lower limit of the PID controller has a higher value than the higher limit.

Remedy: Swap the inputs for low and high limit or assign proper values.

3.5.339 F0260011, ML_PIDType01, Invalid state of state machine

Display: F0260011 Non-fatal error, State_Machine_Error

A non-fatal internal firmware error occurred.

Cause: The function block is controlled by a state machine. Each state represents an action. The state has now an invalid value.

Remedy: Reload PLC program (no online change). If error persists, contact customer service.

3.5.340 F0260012, ML_PIDType01, Selected controller type not supported

Display: F0260012 Non-fatal error, Input_Invalid_Error

The set controller type is invalid.

Cause: The combination of the individual controller type (P part, I part and D part) is invalid.

Remedy: Check the inputs "PControl", "IControl" and "DControl" and use the correct values. If a controller part is to be switched off, the value 0 is to be assigned to it.

3.5.341 F0260030, Inputs have invalid values

Display: F0260030 Non-fatal error, Input_Range_Error

The assigned input values are either outside their limits, or are not valid in combination.

MLC_TABLE Diagnostics

Cause: The input values of the function block are either below their minimum values, above their maximum values or their values are invalid in combination.

Remedy: Assign proper values to the inputs and/or assign proper combination of values. See also documentation for the individual function block.

3.5.342 F0260031, Invalid state of state machine

Display: F0260031 Non-fatal error, State_Machine_Error

A non-fatal internal firmware error occurred.

Cause: The function block is controlled by a state machine. Each state represents an action. The state has now an invalid value.

Remedy: Reload PLC program (no online change). If error persists, contact customer service.

3.5.343 F0260032, Calculations resulted in invalid values

Display: F0260032 Non-fatal error, Calculation_Error

Invalid values occurred during internal calculations

Cause: In some instances, intermediate values are calculated during calculation. Those intermediate values can have invalid values.

Remedy: Slightly vary the input values to get different intermediate values. See also documentation for the individual function blocks for useful starting values.

3.5.344 F0260040, Reference to base system not found

Display: F0260040 Non-fatal error, Resource_Error

An internal firmware error occurred.

Cause: An error occurred in the firmware.

Remedy: Reload the PLC program (no online modifications!). If it fails again, please contact the customer support.

3.5.345 F0260041, Function block could not be instantiated

Display: F0260041 Non-fatal error, System_Error

An internal firmware error occurred.

Cause: An error occurred in the firmware.

Remedy: Reload the PLC program (no online modifications!). If it fails again, please contact the customer support.

3.5.346 F0260042, Function block may not be located in RETAIN data area

Display: F0260042 Non-fatal error, System_Error

The block may not be in the RETAIN range.

Cause: The block is in the RETAIN range. This is not permitted for the block.

Remedy: Take the block out of the RETAIN area. If necessary, put the input variables of the block into the RETAIN range to save the data.

3.5.347 F0260050, ML_CtrlJobConnect, Invalid values of inputs of POU

Display: F0260050 Non-fatal error, Input_Invalid_Error

Values of at least one FB input are invalid.

MLC_TABLE Diagnostics

Cause:	Remedy:
Additional2 : 16#00500001 The command specification at the "Command" is not within the valid values.	To specify the command, the values of the ML_CONNECT_CMD_JOB enumeration have to be used.
Additional2 : 16#00500002 The configuration at the "CfgOfConnection" input contains invalid values.	This error code is currently not used.
Additional2 : 16#00500003 The IP address at the "IP" input is invalid.	The IP address has to have a valid value that is not zero.
Additional2 : 16#00500004 The link at the "LinkSendRecvJob" input is invalid.	The link has to have a valid value that is not zero. A valid link is created by an instance of the "ML_SendRecvJobAss" FB.

3.5.348 F0260051, ML_CtrlJobConnect, Set of command into queue failed

Display: F0260051

Non-fatal error, Device_Error

The entry of the command in the command queue failed.

Cause: The FB caused an unrecoverable error. The command could not be transferred to the command queue.

Remedy: The FB has to be switched off normally and switched on again later on. If the error occurs again, please contact customer service.

3.5.349 F0260052, ML_CtrlJobConnect, Reject of inv. command or status error

Display: F0260052

Non-fatal error, Device_Error

The query of the status from the status queue failed.

Cause:	Remedy:
Additional2 : 16#00520001 The FB caused an unrecoverable error. The command in the command queue contains an invalid IP address.	The FB has to be switched off normally and switched on again later on. If the error occurs again, please contact customer service.
Additional2 : 16#00520002 The FB caused an unrecoverable error. The command in the command queue contains an invalid command specification.	The FB has to be switched off normally and switched on again later on. If the error occurs again, please contact customer service.
Additional2 : 16#00520003 The FB caused an unrecoverable error. The command in the command queue contains an invalid connection index.	The FB has to be switched off normally and switched on again later on. If the error occurs again, please contact customer service.
Additional2 : 16#00520004 The FB caused an unrecoverable error. The command in the command queue contains an invalid configuration.	The FB has to be switched off normally and switched on again later on. If the error occurs again, please contact customer service.
Additional2 : 16#00520005 The connection is already controlled by another FB instance.	The control of the connection has to be enabled first via a command.
Additional2 : 16#00520006 No further connection can be established since the maximum number of connections has been reached.	Connections that are not required anymore have to be closed and the connection establishment has to be started subsequently. The current connection data can be determined via an instance of either the "ML_ShowJobConnect" FB or the "ML_DebugJobConnect" FB.

MLC_TABLE Diagnostics

Cause:	Remedy:
Additional2 : 16#00520007 The FB caused an unrecoverable error. The command in the command queue contains an IP address which does not correspond to the connection controlling the FB.	The FB has to be switched off normally and switched on again later on. If the error occurs again, please contact customer service.
Additional2 : 16#00520008 Currently, there is no connection to the specified IP address to which a passive synchronization is possible.	The connection to the specified IP address has to be opened actively or the FB has to be switched off and later on to be switched on as normally (polling).
Additional2 : 16#00520009 The connection to the specified IP address is currently established and cannot be closed at the same time.	The connection has to be established completely before it can be closed again. The FB has to be switched off normally and switched on again at a later point in time.
Additional2 : 16#0052000A The connection to the specified IP address is currently closed and cannot be established at the same time.	The connection has to be closed completely before it can be established again. The FB has to be switched off normally and switched on again at a later point in time.
Additional2 : 16#0052000B The connection to the specified IP address was enabled.	This error code is currently not used.
Additional2 : 16#0052000C The connection to the specified IP address was closed since the time monitoring detected that the maximum time allowed between two telegrams was exceeded.	Within the maximum time allowed configured between two telegrams, at least one telegram has to be received by the connection participant. If this cannot be ensured, the maximum time allowed configured between two telegrams has to be increased.
Additional2 : 16#0052000D The FB caused an unrecoverable error. The status in the status queue has an invalid length.	The FB has to be switched off normally and switched on again later on. If the error occurs again, please contact customer service.

3.5.350 F0260053, ML_CtrlJobConnect, Watch dog - time out

Display: F0260053

Non-fatal error, Access_Error



The description of this diagnostic message is in preparation.

3.5.351 F026005D, ML_CtrlJobConnect, Invalid state of I/O of POU

Display: F026005D

Non-fatal error, System_Error



The description of this diagnostic message is in preparation.

3.5.352 F026005E, ML_CtrlJobConnect, Invalid state of state machine of POU

Display: F026005E

Non-fatal error, State_Machine_Error



The description of this diagnostic message is in preparation.

3.5.353 F026005F, ML_CtrlJobConnect, Error during init of POU instance

Display: F026005F

Non-fatal error, System_Error



The description of this diagnostic message is in preparation.

3.5.354 F0260060, ML_ShowJobConnect, Invalid values of inputs of POU

Display: F0260060

Non-fatal error, Input_Invalid_Error



The description of this diagnostic message is in preparation.

3.5.355 F0260061, ML_ShowJobConnect, Set of command into queue failed

Display: F0260061

Non-fatal error, Device_Error



The description of this diagnostic message is in preparation.

3.5.356 F0260062, ML_ShowJobConnect, Reject of inv. command or status error

Display: F0260062

Non-fatal error, Device_Error



The description of this diagnostic message is in preparation.

3.5.357 F0260063, ML_ShowJobConnect, Watch dog - time out

Display: F0260063

Non-fatal error, Access_Error



The description of this diagnostic message is in preparation.

3.5.358 F026006E, ML_ShowJobConnect, Invalid state of state machine of POU

Display: F026006E

Non-fatal error, State_Machine_Error



The description of this diagnostic message is in preparation.

3.5.359 F026006F, ML_ShowJobConnect, Error during init of POU instance

Display: F026006F

Non-fatal error, System_Error



The description of this diagnostic message is in preparation.

3.5.360 F0260070, ML_SendJobTlg, Invalid values of inputs of POU

Display: F0260070

Non-fatal error, Input_Invalid_Error



The description of this diagnostic message is in preparation.

3.5.361 F0260071, ML_SendJobTlg, Set of command into queue failed

Display: F0260071

Non-fatal error, Device_Error



The description of this diagnostic message is in preparation.

MLC_TABLE Diagnostics

3.5.362 F0260072, ML_SendJobTlg, Watch dog - time out

Display: F0260072

Non-fatal error, Access_Error



The description of this diagnostic message is in preparation.

3.5.363 F026007E, ML_SendJobTlg, Invalid state of state machine of POU

Display: F026007E

Non-fatal error, State_Machine_Error



The description of this diagnostic message is in preparation.

3.5.364 F026007F, ML_SendJobTlg, Error during init of POU instance

Display: F026007F

Non-fatal error, System_Error



The description of this diagnostic message is in preparation.

3.5.365 F0260080, ML_RecvJobTlg, Invalid values of inputs of POU

Display: F0260080

Non-fatal error, Input_Invalid_Error



The description of this diagnostic message is in preparation.

3.5.366 F0260081, ML_RecvJobTlg, Set of command into queue failed

Display: F0260081

Non-fatal error, Device_Error



The description of this diagnostic message is in preparation.

3.5.367 F0260082, ML_RecvJobTlg, Watch dog - time out

Display: F0260082

Non-fatal error, Access_Error



The description of this diagnostic message is in preparation.

3.5.368 F026008E, ML_RecvJobTlg, Invalid state of state machine of POU

Display: F026008E

Non-fatal error, State_Machine_Error



The description of this diagnostic message is in preparation.

3.5.369 F026008F, ML_RecvJobTlg, Error during init of POU instance

Display: F026008F

Non-fatal error, System_Error



The description of this diagnostic message is in preparation.

3.5.370 F0260090, ML_SendRecvJobAss, Invalid values of inputs of POU

Display: F0260090

Non-fatal error, Input_Invalid_Error

MLC_TABLE Diagnostics



The description of this diagnostic message is in preparation.

3.5.371 F0260091, ML_SendRecvJobAss, Store of recieved job telegram failed

Display: F0260091

Non-fatal error, Device_Error



The description of this diagnostic message is in preparation.

3.5.372 F0260092, ML_SendRecvJobAss, Watch dog - time out

Display: F0260092

Non-fatal error, Access_Error



The description of this diagnostic message is in preparation.

3.5.373 F0260095, ML_SendRecvJobAss, Error communication socket (create)

Display: F0260095

Non-fatal error, Device_Error



The description of this diagnostic message is in preparation.

3.5.374 F0260096, ML_SendRecvJobAss, Error communication socket (close)

Display: F0260096

Non-fatal error, Device_Error



The description of this diagnostic message is in preparation.

3.5.375 F0260097, ML_SendRecvJobAss, Error communication socket (ioctl)

Display: F0260097

Non-fatal error, Device_Error



The description of this diagnostic message is in preparation.

3.5.376 F0260098, ML_SendRecvJobAss, Error communication socket (bind)

Display: F0260098

Non-fatal error, Device_Error



The description of this diagnostic message is in preparation.

3.5.377 F0260099, ML_SendRecvJobAss, Error ethernet buffer (recvfrom)

Display: F0260099

Non-fatal error, Device_Error



The description of this diagnostic message is in preparation.

3.5.378 F026009A, ML_SendRecvJobAss, Error ethernet buffer (sendto)

Display: F026009A

Non-fatal error, Device_Error

MLC_TABLE Diagnostics



The description of this diagnostic message is in preparation.

3.5.379 F026009B, ML_SendRecvJobAss, Defrag error of send/ receive buffer

Display: F026009B

Non-fatal error, Device_Error



The description of this diagnostic message is in preparation.

3.5.380 F026009C, ML_SendRecvJobAss, Error on communication sockets

Display: F026009C

Non-fatal error, Device_Error



The description of this diagnostic message is in preparation.

3.5.381 F026009D, ML_SendRecvJobAss, Invalid state of I/O of POU

Display: F026009D

Non-fatal error, System_Error



The description of this diagnostic message is in preparation.

3.5.382 F026009E, ML_SendRecvJobAss, Invalid state of state machine of POU

Display: F026009E

Non-fatal error, State_Machine_Error



The description of this diagnostic message is in preparation.

3.5.383 F026009F, ML_SendRecvJobAss, Error during init of POU instance

Display: F026009F

Non-fatal error, System_Error



The description of this diagnostic message is in preparation.

3.5.384 F02600A0, ML_DebugJobConnect, Invalid values of inputs of POU

Display: F02600A0

Non-fatal error, Input_Invalid_Error



The description of this diagnostic message is in preparation.

3.5.385 F02600A1, ML_DebugJobConnect, Set of command into queue failed

Display: F02600A1

Non-fatal error, Device_Error



The description of this diagnostic message is in preparation.

3.5.386 F02600A2, ML_DebugJobConnect, Invalid command / getting status

Display: F02600A2

Non-fatal error, Device_Error



The description of this diagnostic message is in preparation.

3.5.387 F02600A3, ML_DebugJobConnect, Invalid command / getting status

Display: F02600A3

Non-fatal error, Device_Error



The description of this diagnostic message is in preparation.

3.5.388 F02600A4, ML_DebugJobConnect, Watch dog - time out

Display: F02600A4

Non-fatal error, Access_Error



The description of this diagnostic message is in preparation.

3.5.389 F02600AE, ML_DebugJobConnect, Invalid state of state machine of POU

Display: F02600AE

Non-fatal error, State_Machine_Error



The description of this diagnostic message is in preparation.

3.5.390 F02600AF, ML_DebugJobConnect, Error during init of POU instance

Display: F02600AF

Non-fatal error, System_Error



The description of this diagnostic message is in preparation.

3.5.391 F0280001, Invalid number of CFL01.1 modules (-Q2, -R3)

Display: F0280001

Non-fatal error, Device_Error

The number of sercos function modules connected is not permissible.

A maximum of two of these modules can be connected.

In many applications, one sercos function module is sufficient for communication between individual controls. Two (identical) function modules are only permitted in the following HW configurations:

- Control L25 with two function modules CFL01.1-Q2,
- Control L45 with two function modules CFL01.1-Q2,
- Control L65 with two function modules CFL01.1-Q2.

Cause: More than

- one C2C-CrossCom module (CFL01.1-R3) has been connected to the MLC,
- two different modules (CFL01.1-Q2 and CFL01.1-R3) have been connected to the MLC or
- two CrossCom modules (CFL01.1-Q2) have been connected to a control not intended for this

purpose.

Solution: Connect only the (maximum) permissible number of sercos function modules to the control.

3.5.392 F0280002, Upload of firmware into des CFL01.1-Q2-FPGA failed

Display: F0280002

Non-fatal error, Device_Error

MLC_TABLE Diagnostics

The desired firmware could not be loaded into the FPGA of the CrossComm module (CFL01.1-Q2).

- Cause:**
- The CrossComm module (CFL01.1-Q2) is defective.
 - An unsupported CrossComm module (CFL01.1-Q2) has been connected.
 - The firmware file "querdpll_fpga.bin" was not found on the Compact Flash card.

Solution: Perform a firmware download via IndraWorks.

If the error persists, the function module is defective. It must be exchanged.

3.5.393 F0280003, Initialization of the CFL01.1-Q2 module failed

Display: F0280003

Non-fatal error, System_Error

The CrossCom module (CFL01.1-Q2) could not be initialized.

- Cause:**
- The CrossCom module (CFL01.1-Q2) is defective.
 - A CrossCom module (CFL01.1-Q2) which is not supported is being used.

Remedy: Exchange the CrossCom module (CFL01.1-Q2).

3.5.394 F0280004, Link ring broken

Display: F0280004

Non-fatal error, Communication_Error

A fatal hardware-related or sercos technology-related problem has occurred with the result that no data transmission is possible in the link ring. The transmission route has either been interrupted or the sercos data exchange has been cancelled.

Cause: **sercos II link (CFL01.1-Q2):**

Every link participant monitors its optical inputs. If the signals fail to appear on all supported link rings, then an OWG interruption is recognized and error F0280004 is reported.

C2C link (CFL01.1-R3):

A C2C master checks the occurring ATs of its slaves for the maximum permissible number of successive failures (for instance due to cable breakage or incorrect timing) and its own MDTs for punctual preparation. In the event of problems, the C2C link in phase CP0 is switched back and error F0280004 is reported in both cases.

Solution: **sercos II link (CFL01.1-Q2):**

Monitor LEDs ErP and ErS on the DAQs (CFL01.1-Q2) (distortion display, OWG break display). The OWG break is physically located "in front of" the participant reporting this error. Eliminate an OWL break, execute the "Clear error" command and "Restore redundancy" via the PLC (or parameter C-0-0704) with a double ring.

C2C link (CFL01.1-R3):

With IndraWorks, look for port errors (due to cable break) on all participants among the "messages" (parameters C-0-0714) in the "Diagnostics for control link" dialog box. A cable break is physically located "in front of" the participant reporting this error. Remedy the cable break if there is a port error.

Otherwise check the link configuration in the "Properties" dialog box (parameter C-0-0778) in relation to timing and producer data and adjust if there are inconsistencies (along the entire link).

In both cases the C2C link must be rebooted again after this.



A slave in the C2C link reports a 'C2C link error' (F0280012) in contrast to the C2C master..

3.5.395 F0280005, Link ring: masterposition incorrect MDT

Display: F0280005

Non-fatal error, Communication_Error

The transmission of the master axis from the link master to the link participants is disturbed.

Cause: Data transmission failure (Bit error), Link MDTs of two consecutive cycles incorrect.

Remedy: Check LED ErP (CrossCom), if necessary check LWLs.

3.5.396 F0280006, Link ring: masterposition incorrect AT

Display: F0280006

Non-fatal error, Communication_Error

The transmission of the master axis position from the link slave to the link master is disrupted. Only the Master axis positions are monitored that are used in the proprietary control ring.

Cause: Data transmission fault (bit error). The link drive telegram of a link slave was defective in two successive cycles.

Solution: Check LED ErP (CrossComm) and possibly check OWLs.

3.5.397 F0280007, Link ring: variant cycle time detected

Display: F0280007

Non-fatal error, Communication_Error

The cycle time is compared with the cycle time set in "C-0-0700, C2C, cycle time (Tcyc), command value ".

Cause: The cycle time in parameter "C-0-0700, C2C, cycle time (Tcyc), command value " is not consistent with the actual cycle time.

Solution: Set the parameter "C-0-0700, C2C, cycle time (Tcyc), command value " to the actual cycle time in the link.

3.5.398 F0280010, Link axis not projectable, C2C is not configured yet

Display: F0280010

Non-fatal error, Resource_Error

To start up MLC and C2C-link with a projected local link axis, the entire C2C configuration must be present on the control. Only then is it possible to check whether the parameterized master axis position (master axis) is produced by a participant and can therefore be consumed by the local link axis.

If this is not the case, after the MLC is started up to operation mode this error message will show the user that the link axes are not capable of functioning.

Cause: An attempt is being made to start up the MLC and the C2C link with a projected local link axis without the entire C2C configuration present on the control.

Solution: Go online with IndraWorks and set the C2C setting to parameterization mode or check if it is already set. Before leaving the dialog box, it is imperative that these settings are saved using the **Save button!**

Alternatively, the local link axis can be removed from the project.

After both measures have been taken, the MLC can be started up in operation mode without error.

3.5.399 F0280011, C2C: Connection not applicable, as not configured

Display: F0280011

Non-fatal error, System_Error

MLC_TABLE Diagnostics

Of the configured local link axes, only the master axis positions (master axes), which are also designated in the entire C2C configuration and produced by a participant, can be consumed.

Cause: The configured local link axis is to consume a master axis position (master axis) of a C2C connection that is not designated in the entire C2C configuration.

Solution: Go online with IndraWorks and adjust the selection of the master axis for the link axis (parameter A-0-0008) to the allowable master axis.

3.5.400 F0280012, C2C: Connection error

Display: F0280012

Non-fatal error, System_Error

The maximum number of NewData failures is exceeded in one of the C2C connections consumed by the control.

Cause: The control producing a C2C connection does not participate in the link anymore.

The consuming control is no longer synchronous to the link ring.

Solution: Check the link data status via C-0-0712.

The controls producing the link data must be entered as valid.

In C-0-0714, the PLL has to be locked in link phase 4.

3.5.401 F0280020, Semaphore error while switching C2C phase

Display: F0280020

Non-fatal error, System_Error

The C2C master has made a futile attempt to execute a C2C phase switch.

The C2C phase switch could either not be started or not ended correctly.

Cause: The semaphore for the C2C phase switch could either not be accepted at the start of the switch or not returned at the end of the switch.

Remedy: Please contact customer service.

3.5.402 F0280021, Invalid commanded C2C phase

Display: F0280021

Non-fatal error, System_Error

The C2C master has made a futile attempt to execute a C2C phase switch.

The set C2C mode is not permitted.

Cause: Either an illegal value has been entered for the C2C mode (C-0-0751) or the control has generated an illegal value internally in the switch algorithm.

Remedy: Make sure that a permissible value is entered in C-0-0751. If the problem continues to occur, please contact customer service.

3.5.403 F0280022, Internal error due to the C2C service channel

Display: F0280022

Non-fatal error, System_Error

The C2C master has made a futile attempt to transfer data to a (the) slave(s) using the C2C service channel.

Cause: Internal problems in the control occurred when maintaining the service channels or the data provision.

Remedy:

Please contact customer service.

3.5.404 F0280023, Incompatible C2C device found

Display: F0280023

Non-fatal error, System_Error

The C2C master has made a futile attempt to execute a C2C phase start up.

MLC_TABLE Diagnostics

There is at least one C2C device (C2C slave) in the link that is not compatible with the C2C master.

Cause: The C2C device does not support the SCP-V1.1 version of the sercos III specification required by the C2C master control.

The firmware version of at least one C2C slave is not compatible with the C2C master controller.

Solution: Update the C2C slave firmware.

Please contact customer service.

3.5.405 F0280024, C2C ring not closed

Display: F0280024

Non-fatal error, System_Error

The C2C-Master has recognized that the C2C-Ring or the line is not closed. Therefore no start of C2C is possible.

Cause: C2C-Master is connected with other participants, however, he has found no C2C-Slave with which he can establish the C2C-Ring or the Line.

The C2C-Slaves are either not switched on or not configured consistent to master.

Remedy: Ensure the consistency of the whole C2C-Configuration and switch on all slaves.



The C2C-Master starts only with the slaves which have been recognized at the time of the C2C-Run-up. Because later coming along slaves cannot be integrated any more into the link, the C2C-Master should start as the latter participant. This can be realized by a high run-up delay (parameter C-0-0060).

3.5.406 F0280025, C2C: Configuration not consistent

Display: F0280025

Non-fatal error, System_Error

The C2C-Master has recognized that the files are not identical for the whole C2C-Configuration on all controls.

Cause: During a change-over of the sercos cycle time in the C2C-Link the C2C-Master tries a run-up, although not yet all participants are adapted.

Remedy: Perform the change-over for all C2C-Participants and therefore adjust the whole C2C-Configuration on all controls.

3.5.407 F0280027, C2C: Error device not found

Display: F0280027

Non-fatal error, System_Error

The control should participate in the C2C link but has not detected a sercos III function module for C2C. The C2C link master does not detect the configured devices.

- Cause:**
- The sercos III for C2C function module does not physically exist or has not been detected at the PCI bus because it is defective.
 - During the link startup, the C2C link master detects devices at the bus that were not configured in "C-0-0778, C2C, command configuration".

- Solution:**
- Plug in the function module for C2C at the FM bus or replace the defective module.
 - Check the parameter "C-0-0778, C2C, command configuration".

The control addresses "C-0-0031" of the link slaves must be consistent with the addresses in "C-0-0778".

MLC_TABLE Diagnostics

3.5.408 F0280029, C2C: Error switching phase 3

Display: F0280029

Non-fatal error, System_Error

The C2C-Master has recognized that he cannot step up the link in phase 3.

After a by chance determined waiting time he starts a new attempt of the C2C-Run-up. This scenario is executed as long as, since the change-over to phase 3 is completed successfully.

Cause: At least one C2C-Slave has not given a receipt to the master at the end of the specified waiting time for the change-over to the preset phase 3.

Remedy: Ensure the consistency of the whole C2C-Configuration and switch off/on all participants of the C2C-Link.

3.5.409 F0280030, C2C: Error command S-0-0127, P3 transition check

Display: F0280030

Non-fatal error, System_Error

The C2C-Master has recognized that he cannot execute the command "Switching preparation to P3" faultlessly.

After a by chance determined waiting time he starts a new attempt of the C2C-Run-up. This scenario is executed as long as, until the command "Switching preparation to P3" is completed successfully.

Cause: At least one C2C-Slave is not able to change over to phase 3.

Remedy: Ensure the consistency of the whole C2C-Configuration and switch off/on all participants of the C2C-Link.

3.5.410 F0280031, C2C: Error switching phase 4

Display: F0280031

Non-fatal error, System_Error

The C2C-Master has recognized that he cannot step up the link in phase 4.

After a by chance determined waiting time he starts a new attempt of the C2C-Run-up. This scenario is executed as long as, since the change-over to phase 4 is completed successfully.

Cause: At least one C2C-Slave has not given a receipt to the master at the end of the specified waiting time for the change-over to the preset phase 4.

Remedy: Ensure the consistency of the whole C2C-Configuration and switch off/on all participants of the C2C-Link.

3.5.411 F0280034, Invalid configuration of C2C timing

Display: F0280034

Non-fatal error, System_Error

The C2C master has made a futile attempt to determine or set the C2C timing from the relevant data of all participants.

Cause: When reading the relevant data from at least one C2C slave, discrepancies occurred between the timing data required by the C2C master and that returned by the slave.

Another reason could be that the C2C master could not write its data to all slaves.

Remedy: Make sure that the cycle times for the drive ring and for C2C on all C2C participants are the same. If the error continues to occur, please contact customer service.

3.5.412 F0280041, C2C: sercos cycle time not possible

Display: F0280041

Non-fatal error, System_Error

This C2C error is not supported by the current version.

3.5.413 F0280044, Link ring: invalid HW synchronization

Display: F0280044

Non-fatal error, System_Error

This link error only occurs if a double ring is configured for the CrossComm (CFL01.1-Q2) function module. It indicates a hardware problem with the cycle counters of both sercos rings.



This error does not occur in a C2C link with function module FL01.1-R3.

Cause: A possible cause for this error message is that both counter values drift apart until the difference is greater than an internally set threshold value. This threshold value depends on the cycle time.

There is another reason for this diagnosis if the counter value on the ring that the PLL controls remains constant over more than 100 cycles. Such a state can only occur temporarily in the transient phase of the PLL during synchronization with the link master. In this case the error message is suppressed. However, in a steady state such behavior would indicate an error.

Remedy: Delete the error using IndraWorks or the <Enter> key in the display. If the error continues to occur, please contact customer service.

3.5.414 F0280060, C2C master: hot plug slave w/o sercos III-interface (HP0)

Display: F0280060

Non-fatal error, System_Error

The C2C master has attempted unsuccessfully to integrate recently connected C2C slaves dynamically into the running C2C link using a hot plug. The attempt failed in hot plug phase 0.

Cause: At least one of the new participants cannot be integrated into the C2C link using the hot plug mechanism because it apparently does not support the sercos III communication interface. This slave either reports a false telegram or does not respond after the C2C master has transferred the basis parameters in hot plug phase 0.

Another cause can be that the last C2C slave in the line does not detect a link on the inactive port.

Solution: Ensure that only devices that are also C2C-compatible and hot plug-compatible are dynamically connected to the C2C link.

3.5.415 F0280061, C2C master: misconfigured hot plug slave (HP0)

Display: F0280061

Non-fatal error, System_Error

The C2C master has attempted unsuccessfully to integrate recently connected C2C slaves dynamically into the running C2C link using a hot plug. The attempt failed in hot plug phase 0.

Cause: At least one of the new participants cannot be integrated into the C2C link using the hot plug mechanism because its C2C slave address is either too large or is not configured.

Solution: Ensure that the link configuration of all new C2C slaves is identical to that of the other slaves.

An exception to this is the control address, which is different for all devices.



This error is also reported as a standard error if there are causes other than those specified in error messages F0280060 - F0280067.

MLC_TABLE Diagnostics

3.5.416 F0280062, C2C master: error while scanning the hot plug slaves (HP1)

Display: F0280062

Non-fatal error, System_Error

The C2C master has attempted unsuccessfully to integrate recently connected C2C slaves dynamically into the running C2C link using a hot plug. The attempt failed in hot plug phase 1.

Cause: At least one of the new participants cannot be integrated into the C2C link using the hot plug mechanism because it could not be scanned by the master. Either no C2C slave could be found at all or the address(es) of one or more slaves could not be determined.

Solution: Ensure that all new C2C slaves have allowable control addresses that are different from those of all other C2C participants.

If this problem still regularly occurs during every scan procedure despite allowable control addresses, it may also be caused by an error in the C2C master scan algorithm. In this case please contact customer service.

3.5.417 F0280063, C2C master: HP1 parameters faultily receipted (HP1)

Display: F0280063

Non-fatal error, System_Error

The C2C master has attempted unsuccessfully to integrate recently connected C2C slaves dynamically into the running C2C link using a hot plug. The attempt failed in hot plug phase 1.

Cause: At least one of the new participants cannot be integrated into the C2C link using the hot plug mechanism because it either did not acknowledge the receipt of the HP1 parameters for C2C configuration or did so erroneously.

Solution: Ensure that the link configuration of all new C2C slaves is identical to that of the other slaves. An exception to this is the control address, which is different for all devices. In addition, check whether the Ethernet connection among C2C participants is correct.

If this does not solve the problem, please contact customer service.

3.5.418 F0280064, C2C master: error running the service channel (HP1)

Display: F0280064

Non-fatal error, System_Error

The C2C master has attempted without success to integrate recently connected C2C slaves dynamically into the running C2C link using a hot plug. The attempt failed in hot plug phase 1.

Cause: The new participants cannot be integrated into the C2C link using the hot plug mechanism because the C2C master could not switch to the serial transmission of communications parameters on the service channel.

Remedy: Please contact customer service.

3.5.419 F0280065, C2C master: hot plug mechanism aborted

Display: F0280065

Non-fatal error, System_Error

The C2C master has attempted unsuccessfully to integrate recently connected C2C slaves dynamically into the running C2C link using a hot plug. The attempt failed in one of the three hot plug phases.

Cause: The C2C master aborted the current hot plug mechanism because the topology in the C2C ring changed.

Another reason could be that the user requested that the C2C link be restarted using the parameter C2C target mode (C-0-0751). In this case all C2C slaves currently present are integrated without the hot plug mechanism.

Solution: Restore the old topology and repeat the hot plug.
Ensure that all slaves are integrated in the C2C link after the C2C has rebooted using C-0-0751 . Then simply delete this diagnostic message.
Otherwise please contact customer service.

3.5.420 F0280066, C2C master: HotPlug not supported

Display: F0280066 Non-fatal error, System_Error

The C2C master has attempted unsuccessfully to integrate recently connected C2C slaves dynamically into the running C2C link using a hot plug.

The master did not execute a hot plug.

Cause: The following reasons may lead to this behavior:

- The C2C master generally does not support a hot plug.
- The C2C link has ring topology.
- The C2C link has not (yet) started up in phase 4.

Solution: Ensure that the C2C link has started up in phase 4 and that only one line or one double line is wired.



An MLC link master always supports hot plug.

3.5.421 F0280067, C2C master: invalid slave address detected (HP1)

Display: F0280067 Non-fatal error, System_Error

The C2C master has attempted unsuccessfully to integrate recently connected C2C slaves dynamically into the running C2C link using a hot plug. The attempt failed in hot plug phase 1.

Cause: At least one of the new participants cannot be integrated into the C2C link using the hot plug mechanism because it could not be detected by the master. Either the address of the C2Cs slave was already found at another slave or was not configured at all.

Solution: Ensure that all new C2C slaves have allowable control addresses that are different from those of all other C2C participants.

If this problem still regularly occurs during every hot plug procedure despite allowable control addresses, it may also be caused by an error in the C2C master scan algorithm. In this case please contact customer service.

3.5.422 F0280068, Ring topology could not be established

Display: F0280068 Non-fatal error, Communication_Error

An error has occurred while restoring the "ring" topology. There is no redundancy.

Cause:

- The last slaves of the lines reported an incorrect topology. There is either no telegram or a wrong telegram at the disabled port.
- There is no ring topology.
- The communication phase is not equal to CP4.
- At least one slave did not apply the specified topology.
- There is no cabling or the cabling is incorrect.

Solution:

- Check the cabling between the link participants.

MLC_TABLE Diagnostics

- Check the ring structure. All link participants have to be in the link phase CP4. Participants that are not in the CP4 link phase must firstly be actively switched via a hot plug at the link. Only afterwards can the "ring" topology be restored.

3.5.423 F0280080, C2C slave: hot plug via C2C master impossible (HP0.1)

Display: F0280080

Non-fatal error, System_Error

The new C2C slave has recognized MSTs in C2C phase 4 (CP4) at one of its ports and went into hot plug phase HP 0.1 to allow the C2C master to integrate it dynamically into the running C2C link. However, the attempt failed.

Cause: The C2C slave cannot be integrated using the hot plug mechanism because the C2C master does not support the hot plug mechanism. It is not possible to integrate the new C2C slave dynamically.

Remedy: The C2C master must restart the active C2C link (see parameter description C-0-0751) in order to integrate the new C2C slave.

If you continue to have problems, please contact customer service.

3.5.424 F0280081, C2C slave: HP0 parameters defective/incomplete (HP0.2)

Display: F0280081

Non-fatal error, System_Error

The new C2C slave has recognized that the C2C master is trying to use the hot plug mechanism to integrate it dynamically. It is now in HP0.2 expecting the parameters for basic initialization of C2C communication. However, these contain an error or arrive in an incomplete state. No basic initialization of C2C communication is possible.

Cause: The HP0 parameters arrive at the slave either containing errors because the C2C link is malfunctioning or in an incomplete state because the C2C master aborted the hot plug mechanism (see F0280065).

Remedy: If the C2C master issued error F0280065, the current slave error can be deleted.

Otherwise, make sure that the link configuration of all new C2C slaves is identical to that of the other slaves. An exception to this is the control address, which is different for all devices. In addition, check whether the Ethernet connection among C2C participants is correct.

If you continue to have problems, please contact customer service.

3.5.425 F0280082, C2C slave: slave address missed in HP control word (HP0.3)

Display: F0280082

Non-fatal error, System_Error

The new C2C slave has recognized that the C2C master is trying to use the hot plug mechanism to integrate it dynamically. It is now in HP0.3 expecting to receive its slave address in the C2C master HP check word in order to switch into phase HP1.

Cause: The C2C slave cannot be integrated into the C2C link using the hot plug mechanism because a slave address has not yet been entered in the C2C master HP check word. This could have happened because the C2C link is malfunctioning or the C2C master aborted the hot plug mechanism (see F0280065).

Remedy: If the C2C master issued error F0280065, the current slave error can be deleted.

Otherwise, make sure that the link configuration of all new C2C slaves is identical to that of the other slaves. An exception to this is the control ad-

MLC_TABLE Diagnostics

dress, which is different for all devices. In addition, check whether the Ethernet connection among C2C participants is correct.

If you continue to have problems, please contact customer service.

3.5.426 F0280083, C2C slave: HP1 parameters defective/incomplete (HP01.1)

Display: F0280083

Non-fatal error, System_Error

The new C2C slave has recognized that the C2C master is trying to use the hot plug mechanism to integrate it dynamically. It now expects in HP1.1 the parameters for initialization of C2C service channel. However, these contain an error or arrive in an incomplete state. Communication for continued C2C start up is not possible.

Cause: The HP1 parameters arrive at the slave either containing errors because the C2C link is malfunctioning or in an incomplete state because the C2C master aborted the hot plug mechanism (see F0280065).

Solution: If the C2C master issued error F0280065, the current slave error can be deleted.

Otherwise, make sure that the link configuration of all new C2C slaves is identical to that of the other slaves.

An exception to this is the control address, which is different for all devices.

In addition, check whether the Ethernet connection among C2C participants is correct.

In case of further problems, please contact customer service.

3.5.427 F0280084, C2C slave: error within C2C service channel (HP1.2)

Display: F0280084

Non-fatal error, System_Error

The new C2C slave has recognized that the C2C master is trying to use the hot plug mechanism to integrate it dynamically. It expects in HP1.2 that it will be scanned by the C2C master before switching up into phase HP2.

Cause: The C2C slave cannot be integrated using the hot plug mechanism because an error has occurred in the C2C service channel. Continuing the C2C start up is not possible.

Solution: If the C2C master issued error F0280065, the current slave error can be deleted.

Otherwise, make sure that the link configuration of all new C2C slaves is identical to that of the other slaves.

An exception to this is the control address, which is different for all devices.

In addition, check whether the Ethernet connection among C2C participants is correct.

In case of further problems, please contact customer service.

3.5.428 F0280085, C2C slave: faulty scan algorithm within C2C master (HP1.2)

Display: F0280085

Non-fatal error, System_Error

The new C2C slave has recognized that the C2C master is trying to use the hot plug mechanism to integrate it dynamically. It now expects in HP1.2 that it will be contacted by the C2C master regarding its new control address as a new C2C participant.

MLC_TABLE Diagnostics

Cause: The C2C slave cannot be integrated into the C2C link using the hot plug mechanism because it has recognized an error in the C2C master scan algorithm.

Solution: If the C2C master issued error F0280065, the current slave error can be deleted.

Otherwise, make sure that the link configuration of all new C2C slaves is identical to that of the other slaves.

An exception to this is the control address, which is different for all devices.

In addition, check whether the Ethernet connection among C2C participants is correct.

In case of further problems, please contact customer service.

3.5.429 F0280086, C2C slave: error running switch command S-0-0127/8 (HP2)

Display: F0280086

Non-fatal error, System_Error

The new C2C slave has recognized that the C2C master is trying to use the hot plug mechanism to integrate it dynamically. It is in hot plug phase HP2 expecting commands S-0-0127 and S-0-0128 to prepare for switching to C2C phases CP3 and CP4.

Cause: The C2C slave cannot be integrated into the C2C link using the hot plug mechanism because an error occurred when the switch command S-0-0127 or S-0-0128 was executed.

Solution: If the C2C master issued error F0280065, the current slave error can be deleted.

Otherwise, make sure that the link configuration of all new C2C slaves is identical to that of the other slaves.

An exception to this is the control address, which is different for all devices.

In addition, check whether the Ethernet connection among C2C participants is correct.

In case of further problems, please contact customer service.

3.5.430 F0280087, C2C slave: hot plug mechanism failed

Display: F0280087

Non-fatal error, System_Error

The new C2C slave has recognized that the C2C master is trying to use the hot plug mechanism to integrate it dynamically. It now expects to enter into cyclical C2C communication with CP4 after all hot plug phases have been successfully completed.

Cause: The C2C slave cannot be integrated into the C2C link using the hot plug mechanism because the C2C master aborted the hot plug mechanism before achieving cyclical C2C communication in CP4.

Solution: If the C2C master issued error F0280065, the current slave error can be deleted.

Otherwise, make sure that the link configuration of all new C2C slaves is identical to that of the other slaves. An exception to this is the control address, which is different for all devices. In addition, check whether the Ethernet connection among C2C participants is correct.

In case of further problems, please contact customer service.

3.5.431 F0280100, Lack of memory due to the C2C interface data

Display: F0280100

Non-fatal error, System_Error

The firmware did not activate the C2C interface because there is not sufficient RAM memory in the control for the interface data.

Cause: This may be caused either by not enough memory for C2C real time data or (and) too little memory for the internals tools used to check the C2C configuration.

Remedy: Please contact customer service.

3.5.432 F0280101, Initialization of the C2C hardware failed

Display: F0280101 Non-fatal error, System_Error

The firmware did not activate the link interface because the initialization of the link hardware failed.

This problem can occur in the C2C as well as in the sercos II link.

The error is reported once as soon as the control started in the operating mode. The error can be deleted.

Cause: **sercos II link (CFL01.1-Q2):**

This problem could have the following causes:

- No sercos II function module available.
- The configured slot address at the PCI bus (C-0-0040) does not match the address set (C-0-0039) at the function module.

C2C link (CFL01.1-R3):

This problem could have the following causes:

- No sercos III function module available.
- The configured slot address at the PCI bus (C-0-0040) does not match the address set (C-0-0039) at the function module.
- The FPGA firmware is not on the Compact Flash card.
- The FPGA firmware cannot be loaded to the function module.
- The FPGA firmware does not support the sercos III interface.
- The FPGA firmware supports the wrong function type (master instead of slave).
- The version of the FPGA firmware is not supported by the control.

Solution: Ensure that the required function module is connected for the link at the PCI bus and check the matching of the slot addresses.

Download a (new) firmware at correct hardware and correlated slot address into a C2C link (CFL01.1-R3) via IndraWorks. If the error is still present, the function module is defective. It has to be exchanged.

3.5.433 F0280103, Master axis not applicable, defective internal axis table

Display: F0280103 Non-fatal error, System_Error

Of the projected local link axes, only the master axis positions (master axes) which are also entered in the internal configuration list for the sercos II link ring can be consumed.

Cause: An internal firmware error occurred. The projected (new) master axis cannot or can no longer be accepted into the internal configuration list.

Remedy: Please contact customer service.

3.5.434 F0280104, Old master axis unerasable, defective internal axis table

Display: F0280104 Non-fatal error, System_Error

MLC_TABLE Diagnostics

Of the projected local link axes, only the master axis positions (master axes) which are also entered in the internal configuration list for the sercos II link ring can be deleted.

Cause: An internal firmware error occurred. The old projected master axis can not be deleted from the internal configuration list because it cannot be found.

Remedy: Please contact customer service.

3.5.435 F0280105, Setup of the P-/S-Count values via SVCH failed

Display: F0280105

Non-fatal error, System_Error

The firmware did not activate the C2C interface because the C2C master could not assign the P-/S count values to all C2C slaves. During C2C start up the P-/S count values are communicated acyclically to all slaves via the C2C service channel.

Cause: While the C2C master was attempting to write the P-/S count values acyclically in all C2C slaves, a malfunction occurred in the C2C service channel. At least one slave received data containing an error or no data at all.

Remedy: Switch all C2C controls off and back on again. If the error occurs again, please contact customer service.

3.5.436 F0280106, Enquiry of the P-/S-SyncCnt values via SVCH failed

Display: F0280106

Non-fatal error, System_Error

The firmware did not activate the C2C interface because the C2C master could not read the P-/S SyncCnt values from all C2C slaves. During C2C start up the master requests the P-/S SyncCnt values acyclically from all slaves via the C2C service channel.

Cause: While the C2C master was attempting to read the P-/S SyncCnt values acyclically from all C2C slaves, a malfunction occurred in the C2C service channel. For this reason the data from at least one slave contains errors or did not reach the C2C master at all.

Remedy: Switch all C2C controls off and back on again. If the error occurs again, please contact customer service.

3.5.437 F0280107, Enquiry of the ring configuration ID via SVCH failed

Display: F0280107

Non-fatal error, System_Error

The firmware did not activate the C2C interface because the C2C master could not read the ring configuration ID from all C2C slaves. During C2C start up the master requests the ring configuration ID acyclically from all slaves via the C2C service channel.

Cause: While the C2C master was attempting to read the ring configuration ID acyclically from all C2C slaves, a malfunction occurred in the C2C service channel. For this reason the data from at least one slave contains errors or did not reach the C2C master at all.

Remedy: Switch all C2C controls off and back on again. If the error occurs again, please contact customer service.

3.5.438 F0280109, Generic (configuration) error due to the C2C interface

Display: F0280109

Non-fatal error, System_Error

The firmware did not enable the C2C interface because the C2C master did not find allowable C2C configuration data in all C2C slaves. The master checks the C2C configuration data of all slaves after it has requested this data acyclically via the service channel.

MLC_TABLE Diagnostics

In addition, generic problems with regard to C2C initialization and SVCH communication could occur (see note).

Cause: When checking the C2C configuration, the C2C master recognized either an error in the configuration data from at least one slave or other generic problems. The reason for these problems could be:

- an erroneous or missing XML file,
- an erroneous ring configuration ID,
- a generic configuration error that was not specified further (see note),
- a generic initialization error that was not specified further (see note),
- a generic SVCH error that was not specified further (see note).



F0280109 is also the default diagnostic message for the entire C2C start up. It appears when any problem occurs at the C2C interface that has to do with initialization, configuration and acyclical communication and has not been specifically analyzed. In these cases no individual diagnostic messages are provided.

Solution: Switch all C2C controls off and back on again. If the error occurs again, please contact customer service.

3.5.439 F0280161, Set point transfer error

Display: F0280161 Non-fatal error, Communication_Error

Error in cyclic data transfer of the link ring.

Cause:

- The command values in the MDT telegrams of the link ring could not be consistently transferred to the slaves.

Solution: Increase sercos cycle time. If the error cannot be corrected, please contact the customer service.

3.5.440 F0290001, Transformation not valid

Display: F0290001 Non-fatal error, Input_Invalid_Error

Cause: When selecting a transformation, an invalid transformation was selected, e.g. zero.

Solution: Select a valid transformation.

3.5.441 F0290400, General kinematics error

Display: F0290400 Non-fatal error, Device_Error

Cause: General Kinematics Error

3.5.442 F0290401, Invalid control number

Display: F0290401 Non-fatal error, Input_Range_Error

Cause: Invalid Control Number

3.5.443 F0290402, Invalid kinematics number

Display: F0290402 Non-fatal error, Input_Range_Error

Cause: Invalid Kinematics Number

3.5.444 F0290403, Invalid command type

Display: F0290403 Non-fatal error, Access_Error

MLC_TABLE Diagnostics

Cause: Invalid Command Type

3.5.445 F0290404, Command not supported by kinematics

Display: F0290404

Non-fatal error, State_Machine_Error

Cause: Command Not Supported by Kinematics

3.5.446 F0290405, Command rejected while 'StandStill Incomplete'

Display: F0290405

Non-fatal error, State_Machine_Error

Cause: The kinematics state machine is in the "Standstill Incomplete" state.
An attempt was made to send an invalid command.

Solution: Refer to the description of "K-0-0022, Extended kinematic status" (state machine).

3.5.447 F0290406, Command rejected while 'PM Program Stopping'

Display: F0290406

Non-fatal error, State_Machine_Error

Cause: The kinematics state machine is in the "PM (Programmed Motion), Program Stopping" state.
An attempt was made to send an invalid command.

Solution: Refer to the description of "K-0-0022, Extended kinematic status" (state machine).

3.5.448 F0290407, Command rejected while 'StandStill Complete'

Display: F0290407

Non-fatal error, State_Machine_Error

Cause: The kinematics state machine is in the "Standstill Complete" state. An attempt was made to send an invalid command.

Solution: Refer to the description of "K-0-0022, Extended kinematic status" (state machine).

3.5.449 F0290408, Invalid command number

Display: F0290408

Non-fatal error, Input_Invalid_Error

Cause: Invalid Kinematics Command Number

3.5.450 F0290409, Command not supported in this state

Display: F0290409

Non-fatal error, State_Machine_Error

Cause: The command is not supported in this state

3.5.451 F0290410, Reset still 'ErrorStop'

Display: F0290410

Non-fatal error, State_Machine_Error

Cause: Reset while Error-Stop active

3.5.452 F0290411, Command rejected while 'PM Program Running'

Display: F0290411

Non-fatal error, State_Machine_Error

Cause: The kinematics state machine is in the "PM (Programmed Motion), Program Running" state. It was tried to send an invalid command.

Remedy: Refer to the description of K-0-0022, Extended kinematics status (state machine).

The "Programmed Motion" is described with all its substates. The permitted commands can be seen here.

3.5.453 F0290412, Error while selecting RCL program

Display: F0290412

Non-fatal error, Input_Invalid_Error

Cause: Error while selecting RCL program.

3.5.454 F0290413, Command rejected while 'Parameter Mode'

Display: F0290413

Non-fatal error, State_Machine_Error

Cause: FBs were called in the parameterization mode (P2) via the PLC program. The FBs are only supported in the operating mode (P4).

3.5.455 F0290414, Command rejected while 'ErrorStop'

Display: F0290414

Non-fatal error, State_Machine_Error

Cause: The kinematics state machine is in the "Errorstop" state. It was tried to send an invalid command.

Remedy: Refer to the description of K-0-0022, Extended kinematics status (state machine).

3.5.456 F0290415, Command aborted

Display: F0290415

Non-fatal error, State_Machine_Error

Cause: Command was aborted.

3.5.457 F0290416, Switching to 'StandStill' not possible

Display: F0290416

Non-fatal error, State_Machine_Error

Cause: The kinematics state machine is not ready for switch to "Standstill".

Solution: Refer to the description of "K-0-0022, Extended kinematic status" (state machine).

3.5.458 F0290417, RCL process does not exist

Display: F0290417

Non-fatal error, Access_Error

Cause: RCL process does not exist.

3.5.459 F0290501, Two PLC-MotionCommands per motion cycle not allowed

Display: F0290501

Non-fatal error, State_Machine_Error

Cause: Two kinematic Motion commands were issued in one Motion cycle for one kinematics. This is not permitted.

Solution: Use the "InBuffer" output of the function block to start the next function block.

3.5.460 F0290502, Command rejected - buffer full

Display: F0290502

Non-fatal error, State_Machine_Error

Cause: The buffer for the kinematic Motion command is full. New motion commands can only be issued after a motion has been completed.

3.5.461 F0290503, Invalid motion command

Display: F0290503

Non-fatal error, State_Machine_Error

Cause: An invalid kinematic Motion command was issued.

3.5.462 F0290505, Synchronisation to more than one belt not possible

Display: F0290505

Non-fatal error, Input_Invalid_Error

MLC_TABLE Diagnostics

Cause: A kinematic Motion command was issued that is to synchronize to more than one belt.

Solution: Issue only kinematic Motion commands traveling synchronously maximum to one belt.

Cause: A kinematic Motion command was issued that is to synchronize to a second belt without being desynchronized from the first belt before.

Solution: Issue a kinematic Motion command that is to desynchronize from the first belt before.

3.5.463 F02C0066, Axis list in K-0-0008 not completed

Display: F02C0066

Non-fatal error, Other_Error

Cause: Axis List in K-0-0008 incomplete

3.5.464 F02C00B7, Reserved

Display: F02C00B7

Non-fatal error, System_Error

This diagnostics number is reserved.

3.5.465 F02C0173, Illegal jump instruction

Display: F02C0173

Non-fatal error, State_Machine_Error

Cause: Return from the subprogram or loop not permitted.

3.5.466 F02C0177, Error in exclusive statement, EXCLUSIVE_END expected

Display: F02C0177

Non-fatal error, Other_Error

Cause: Error in Exclusive Statement, EXCLUSIVE_END Expected

3.5.467 F02C017B, Subprogram nesting depth exceeded

Display: F02C017B

Non-fatal error, Other_Error

Cause: Subprogram Nesting Depth Exceeded

3.5.468 F02C017D, Illegal relational operator

Display: F02C017D

Non-fatal error, Other_Error

Cause: Illegal Relational Operator

3.5.469 F02C017F, Belt type expected

Display: F02C017F

Non-fatal error, Other_Error

Cause: Belt Type Expected Before calling the SYNCHRON command, the belt type is to be specified with the special function no. 21.

3.5.470 F02C0182, Jump statement not permitted

Display: F02C0182

Non-fatal error, Other_Error

Cause: Jump Statement Not Permitted JUMP outside the loop into a loop is not permitted.

3.5.471 F02C0183, Circle with one axis not possible

Display: F02C0183

Non-fatal error, Other_Error

Cause: Circular move not possible with one axis

3.5.472 F02C0202, Programname contains invalid characters

Display: F02C0202

Non-fatal error, Input_Invalid_Error

MLC_TABLE Diagnostics

Cause: The program name, specified in parameter K-0-0221, contains unauthorized characters.

The following restrictions apply:

- maximum 12 characters with an extension,
- maximum 8 characters without an extension,
- only A...Z, a...z, 0..9, '_' are permitted,
- the first character must be a letter,
- no differentiation is made between upper and lower case, "Robi_1" is identical to "ROBI_1".

3.5.473 F02C0203, QLL-file not found

Display: F02C0203

Non-fatal error, Access_Error

Cause: No QLL file was found for the specified program name in parameter "K-0-0221, Name of the file to be compiled".

Solution: Please specify the name of an existing QLL file in parameter K-0-0221.
Please copy the QLL file using parameter "K-0-1060, Command: Load file from CF" into the control's SRAM/RAM.

3.5.474 F02C0204, Error during compilation

Display: F02C0204

Non-fatal error, System_Error

Cause: An error has occurred when compiling the QLL file in parameter "K-0-0221, Name of the file to be compiled".



Precise information about the cause of the error is documented in a file.

The name of this file comes from <Programname>.ERR.

This ".ERR" file is stored in the control's SRAM/RAM.

The ".ERR" file can be loaded via parameter "K-0-0220, File transfer name" and "K-0-1061, Command: Save file to CF" from the SRAM/RAM to the control's Compact Flash card.

3.5.475 F02C0205, SRAM semaphore defective

Display: F02C0205

Non-fatal error, System_Error

Cause: An internal error has occurred when compiling the QLL file in parameter K-0-0221.

3.5.476 F02C033F, Illegal program name

Display: F02C033F

Non-fatal error, Other_Error

Cause: Illegal program name.

3.5.477 F02C0340, Program name too long

Display: F02C0340

Non-fatal error, Other_Error

Cause: Program Name Too Long

3.5.478 F02C0342, Illegal file name extension

Display: F02C0342

Non-fatal error, Other_Error

Cause: Illegal File Name Extension

MLC_TABLE Diagnostics

3.5.479 F02C0489, IOL-on: Time offset too long

Display: F02C0489

Non-fatal error, System_Error

Cause: Special function 1 (switch On): A too long time offset has been programmed.**Remedy:** Check RCL program.**3.5.480 F02C048A, IOL-off: Time offset too long**

Display: F02C048A

Non-fatal error, System_Error

Cause: Special function 1 (switch Off): A too long time offset has been programmed.**Remedy:** Check RCL program.**3.5.481 F02C048B, PPO: Time offset too long**

Display: F02C048B

Non-fatal error, System_Error

Cause: A too long time offset has been programmed.**Remedy:** Check RCL program.**3.5.482 F02C048C, IOL-on: Function in use**

Display: F02C048C

Non-fatal error, System_Error

Cause: Special function 1 (switch On): The programmed IOL function number (first parameter) is still occupied (active).**Remedy:** Check RCL program.**3.5.483 F02C048D, IOL-off: Function in use**

Display: F02C048D

Non-fatal error, System_Error

Cause: Special function 1 (switch Off): The programmed IOL function number (first parameter) is still occupied (active).**Remedy:** Check RCL program.**3.5.484 F02C048E, PPO: Function in use**

Display: F02C048E

Non-fatal error, System_Error

Cause: Special function 2: The programmed PPO function number (first parameter) is still occupied (active).**Remedy:** Check RCL program.**3.5.485 F02C0491, PPO: Velocity greater than max. velocity**

Display: F02C0491

Non-fatal error, System_Error

Cause: PPO analog output: Voltage to be put out is bigger than $V_{\max}$.**Remedy:** Check RCL program.**3.5.486 F02C0895, Data transfer error**

Display: F02C0895

Non-fatal error, Other_Error

Cause: Data transfer error.**3.5.487 F02C0898, Data transfer error**

Display: F02C0898

Non-fatal error, Other_Error

Cause: Data transfer error.

MLC_TABLE Diagnostics

3.5.488 F02C089C, Data transfer error

Display: F02C089C

Non-fatal error, Other_Error

Cause: Data transfer error.

3.5.489 F02C089D, Data transfer error

Display: F02C089D

Non-fatal error, Other_Error

Cause: Data transfer error.

3.5.490 F02C08A7, Data transfer error

Display: F02C08A7

Non-fatal error, Other_Error

Cause: Data transfer error.

3.5.491 F02C08BA, Data transfer error

Display: F02C08BA

Non-fatal error, Other_Error

Cause: Data transfer error.

3.5.492 F02C08D0, Data transfer error

Display: F02C08D0

Non-fatal error, Other_Error

Cause: Data transfer error.

3.5.493 F02C0E10, rFkt: invalid length

Display: F02C0E10

Non-fatal error, System_Error

Cause: Protocol error TCP/IP.

Incorrect funtion header of function.

Remedy: Check rho4fkt.dll version.

3.5.494 F02C0E11, rFkt: Client disconnected (1)

Display: F02C0E11

Non-fatal error, System_Error

Cause: TCP/IP channel of the function has been closed.

Remedy: Check the Client-Server connection.

3.5.495 F02C0E12, rFkt: malloc error

Display: F02C0E12

Non-fatal error, System_Error

Cause: System memory too small .

Remedy: Inform after-sales service.

3.5.496 F02C0E13, rFkt: Client disconnected (2)

Display: F02C0E13

Non-fatal error, System_Error

Cause: TCP/IP channel of the function has been closed.

Remedy: Check the Client-Server connection.

3.5.497 F02C0E14, rFkt: wrong channel

Display: F02C0E14

Non-fatal error, System_Error

Cause: Invalid TCP/IP channel .

Remedy: Inform after-sales service.

MLC_TABLE Diagnostics

3.5.498 F02C0E15, rFkt: READ error

Display: F02C0E15

Non-fatal error, System_Error

Cause: Error in opening TCP/IP channel.**Remedy:** Inform after-sales service.**3.5.499 F02C0E16, rFkt: WRITE error**

Display: F02C0E16

Non-fatal error, System_Error

Cause: Error in opening TCP/IP channel for write.**Remedy:** Inform after-sales service.**3.5.500 F02C0E17, rFkt: CONNECT error**

Display: F02C0E17

Non-fatal error, System_Error

Cause: Socket cannot be generated.**Remedy:** Inform after-sales service.**3.5.501 F02C0E44, Socket error PCL**

Display: F02C0E44

Non-fatal error, System_Error

Cause: Socket cannot be generated.**Remedy:** Inform after-sales service.**3.5.502 F02C0E45, Unknown server PCL**

Display: F02C0E45

Non-fatal error, System_Error

Cause: Incorrect port number or TCP/IP address.**Remedy:** Check port number or TCP/IP address.**3.5.503 F02C0E46, No connect PCL**

Display: F02C0E46

Non-fatal error, System_Error

Cause: PCL is not running.**Remedy:** Inform after-sales service.**3.5.504 F02C0E47, Socket error**

Display: F02C0E47

Non-fatal error, System_Error

Cause: Socket cannot be created.**Remedy:** Inform after-sales service.**3.5.505 F02C0E48, Bind error**

Display: F02C0E48

Non-fatal error, System_Error

Cause: An address cannot be assigned to socket.**Remedy:** Inform after-sales service.**3.5.506 F02C0E49, List error**

Display: F02C0E49

Non-fatal error, System_Error

Cause: The socket is not valid; it cannot wait for Client.**Remedy:** Inform after-sales service.**3.5.507 F02C0E4A, Accept error**

Display: F02C0E4A

Non-fatal error, System_Error

Cause: The Client is not accepted.

Remedy: Inform after-sales service.

3.5.508 F02C0E52, Serial writing is not possible

Display: F02C0E52

Non-fatal error, System_Error

Cause: It is not possible to write or read on a serial channel.

Remedy: Read/write V24_x is to be closed because an error has occurred.

3.5.509 F02C0ECE, Shutdown error

Display: F02C0ECE

Non-fatal error, Other_Error

Cause: Shutdown Error.

3.5.510 F02C0ECF, Shutdown error

Display: F02C0ECF

Non-fatal error, Other_Error

Cause: Shutdown Error.

3.5.511 F02C0F1E, End of file

Display: F02C0F1E

Non-fatal error, System_Error

Cause: Read over the file end.

Remedy: File smaller than expected.

3.5.512 F02C0F1F, File opened for write

Display: F02C0F1F

Non-fatal error, System_Error

Cause: Warning: this file is already opened for writing.

Remedy: You read from a file that is described by another process.

3.5.513 F02C0F20, No compressing

Display: F02C0F20

Non-fatal error, System_Error

Cause: It is not required to compress this file.

Remedy: File is already compressed.

3.5.514 F02C0F21, File does not exist

Display: F02C0F21

Non-fatal error, System_Error

Cause: The selected RCL program (IRD file) was not found.

Remedy: The compiled RCL program is stored in the IRD file. Check

- whether it was transferred to the control
- whether the string value "IRDProgName" at the MB_IRDProgSelect was correct, if necessary.

3.5.515 F02C0F22, Memory (user) overflow

Display: F02C0F22

Non-fatal error, System_Error

Cause: The user memory is full.

Remedy: Delete unnecessary files.

3.5.516 F02C0F23, File too many opened

Display: F02C0F23

Non-fatal error, System_Error

Cause: The file was too often opened.

MLC_TABLE Diagnostics

Remedy: A file can be opened 128 times for reading.

3.5.517 F02C0F24, File still opened

Display: F02C0F24

Non-fatal error, System_Error

Cause: The file is already opened for writing.

Remedy: A file can only be opened once for writing.

3.5.518 F02C0F25, File opened for write

Display: F02C0F25

Non-fatal error, System_Error

Cause: The file is already opened for writing.

Remedy: A file can only be opened once for writing.

3.5.519 F02C0F26, File already exists

Display: F02C0F26

Non-fatal error, System_Error

Cause: Rename, there is already a file with this name.

Remedy: Choose another name.

3.5.520 F02C0F27, No reserved block empty

Display: F02C0F27

Non-fatal error, System_Error

Cause: No more reserved block free.

Remedy: Inform after-sales service.

3.5.521 F02C0F28, File not found

Display: F02C0F28

Non-fatal error, System_Error

Cause: This file is not existing.

Remedy: Check file name.

3.5.522 F02C0F3B, Not enough heap

Display: F02C0F3B

Non-fatal error, System_Error

Cause: There is not enough heap for this operation.

Remedy: Inform after-sales service.

3.5.523 F02C0F3F, Read error PKT file

Display: F02C0F3F

Non-fatal error, System_Error

Cause: Error when reading/writing the point file.

Remedy: Inform after-sales service.

3.5.524 F02C0F40 up to F02C0F57, Access denied

Cause: Read access to this file is not possible.

Remedy: Check file attributes.

3.5.525 F0308001, Over-temperature

Display: F0308001

Non-fatal error, System_Error

The output monitoring of the PLS module is enabled with error class 'F0' in parameter "C-0-0300, PLS No.1, control word".

The temperature of at least one output driver at plugs 'X201' or 'X202' of the function module is too high. There can be several reasons for this:

- Short circuit in the connected cabling,

- Defect in the connected device,
- Overloading of an output,
- Inadequate ventilation of the function module.



The output driver independently switches off the outputs. The error reaction of the output drivers cannot be influenced.



Output monitoring can be switched off in parameter "C-0-0300" or the error class increased.

Cause: Excess temperature of output drivers at plugs 'X201' and 'X202' of the programmable limit switch.

Solution: Check the cabling to the connected devices or the devices themselves.

3.5.526 F0308002, Power failure

Display: F0308002

Non-fatal error, System_Error

Voltage monitoring of the programmable limit switch is enabled with error class 'F0' in parameter "C-0-0300, PLS No.1, control word".

The voltage at plug 'X1S' of the function module is inadequate.



Voltage monitoring can be switched off in parameter "C-0-0300" or the error class increased.

Cause: Undervoltage at plug 'X1S' of the programmable limit switch.

Solution: Check the voltage supply to the function module.

3.5.527 F0310004, Basic internal error in the oscilloscope

Display: F0310004

Non-fatal error, System_Error

The control firmware has detected a fatal internal error in the oscilloscope. Please contact the support team.

3.5.528 F0310007, Starting the oscilloscope is not possible

Display: F0310007

Non-fatal error, System_Error

The oscilloscope trace could not be started due to an error during initialization. Please contact the support team.

3.5.529 F0310008, Error during trigger-check

Display: F0310008

Non-fatal error, System_Error

An error occurred during evaluation of the oscilloscope trigger. Please contact the support team.

3.5.530 F0310009, Error during data recording

Display: F0310009

Non-fatal error, System_Error

An error occurred while the oscilloscope was tracing data. Please contact the support team.

3.5.531 F03500FA, RCL Compiler: Time constant too great

Display: F03500FA

Non-fatal error, Other_Error

Cause: Time constant value too high

MLC_TABLE Diagnostics

3.5.532 F03500FB, RCL Compiler: Variable longer than 12 characters

Display: F03500FB

Non-fatal error, Other_Error

Cause: Variable longer than 12 characters**3.5.533 F03500FD, RCL Compiler: Unexpected end of line**

Display: F03500FD

Non-fatal error, Other_Error

Cause: The compiler encountered an unexpected end of line.**3.5.534 F03500FF, RCL Compiler: Syntax error, number expected**

Display: F03500FF

Non-fatal error, Other_Error

Cause: Syntax error detected, a number is expected.**3.5.535 F0350101, RCL Compiler: Colon expected**

Display: F0350101

Non-fatal error, Other_Error

Cause: A colon is expected.**3.5.536 F0350102, RCL Compiler: Left squared bracket expected**

Display: F0350102

Non-fatal error, Other_Error

Cause: The compiler expects an open squared bracket.**3.5.537 F0350103, RCL Compiler: Right squared bracket expected**

Display: F0350103

Non-fatal error, Other_Error

Cause: The compiler expects a close squared bracket.**3.5.538 F0350104, RCL Compiler: END expected**

Display: F0350104

Non-fatal error, Other_Error

Cause: The compiler expects an END keyword.**3.5.539 F0350105, RCL Compiler: EXACT or CIRCA expected**

Display: F0350105

Non-fatal error, Other_Error

Cause: The compiler expects the EXACT or CIRCA keyword.**3.5.540 F0350106, RCL Compiler: INTEGER constant expected**

Display: F0350106

Non-fatal error, Other_Error

Cause: The compiler expects an integer value as a constant.**3.5.541 F0350107, RCL Compiler: Equal sign expected**

Display: F0350107

Non-fatal error, Other_Error

Cause: The compiler expects an equals sign.**3.5.542 F0350108, RCL Compiler: Left bracket expected**

Display: F0350108

Non-fatal error, Other_Error

Cause: The compiler expects an open bracket.**3.5.543 F0350109, RCL Compiler: Right bracket expected**

Display: F0350109

Non-fatal error, Other_Error

Cause: The compiler expects a close bracket.

- 3.5.544 F035010A, RCL Compiler: Smaller or greater expected**
Display: F035010A Non-fatal error, Other_Error
Cause: The compilers expects a lower or upper case character.
- 3.5.545 F035010B, RCL Compiler: End of line or file or colon expected**
Display: F035010B Non-fatal error, Other_Error
Cause: The compiler expects a Line, End of File or colon.
- 3.5.546 F035010C, RCL Compiler: Multiplication expected**
Display: F035010C Non-fatal error, Other_Error
Cause: The compiler expects the TO or VIA keyword.
- 3.5.547 F035010D, RCL Compiler: TO or VIA expected**
Display: F035010D Non-fatal error, Other_Error
Cause: The compiler expects multiplication.
- 3.5.548 F035010E, RCL Compiler: Variable expected**
Display: F035010E Non-fatal error, Other_Error
Cause: The complier expects a variable symbol.
- 3.5.549 F035010F, RCL Compiler: Keyword PROGRAM expected**
Display: F035010F Non-fatal error, Other_Error
Cause: The compiler expects the keyword PROGRAM.
- 3.5.550 F0350110, RCL Compiler: FILE expected**
Display: F0350110 Non-fatal error, Other_Error
Cause: The compiler expects the FILE keyword.
- 3.5.551 F0350111, RCL Compiler: SUBROUTINE expected**
Display: F0350111 Non-fatal error, Other_Error
Cause: The compiler expects the SUBROUTINE keyword.
- 3.5.552 F0350112, RCL Compiler: REPEAT_END expected**
Display: F0350112 Non-fatal error, Other_Error
Cause: The REPEAT_END loop is expected.
- 3.5.553 F0350113, RCL Compiler: Type not defined**
Display: F0350113 Non-fatal error, Other_Error
Cause: The data type is not defined.
- 3.5.554 F0350114, RCL Compiler: Const., symbol or expres. as factor exp.**
Display: F0350114 Non-fatal error, Other_Error
Cause: The compiler expects a constant, symbol or an expression as a factor.
- 3.5.555 F0350115, RCL Compiler: End of file expected**
Display: F0350115 Non-fatal error, Other_Error
Cause: The compiler expects an End of File.

MLC_TABLE Diagnostics

3.5.556 F0350116, RCL Compiler: Invalid symbol

Display: F0350116

Non-fatal error, Other_Error

Cause: The compiler encountered an incorrect symbol.**3.5.557 F0350117, RCL Compiler: Instruction expected**

Display: F0350117

Non-fatal error, Other_Error

Cause: The compiler expects an instruction.**3.5.558 F0350118, RCL Compiler: Output variable expected**

Display: F0350118

Non-fatal error, Other_Error

Cause: The compiler expects an output variable.**3.5.559 F0350119, RCL Compiler: Output not permitted**

Display: F0350119

Non-fatal error, Other_Error

Cause: The output is not permitted.**3.5.560 F035011A, RCL Compiler: BINARY expected**

Display: F035011A

Non-fatal error, Other_Error

Cause: The compiler expects the BINARY keyword.**3.5.561 F035011B, RCL Compiler: REAL expected**

Display: F035011B

Non-fatal error, Other_Error

Cause: The compiler expects the REAL keyword.**3.5.562 F035011C, RCL Compiler: Input variable expected**

Display: F035011C

Non-fatal error, Other_Error

Cause: The compiler expects an input variable.**3.5.563 F035011D, RCL Compiler: Input not permitted**

Display: F035011D

Non-fatal error, Other_Error

Cause: The input is not permitted.**3.5.564 F035011E, RCL Compiler: Program and file name do not fit**

Display: F035011E

Non-fatal error, Other_Error

Cause: The program name does not match the filename.**3.5.565 F035011F, RCL Compiler: Invalid number of elements**

Display: F035011F

Non-fatal error, Other_Error

Cause: The number of elements is not permitted.**3.5.566 F0350120, RCL Compiler: Array expected**

Display: F0350120

Non-fatal error, Other_Error

Cause: The compiler expects a field variable.**3.5.567 F0350121, RCL Compiler: Function name expected**

Display: F0350121

Non-fatal error, Other_Error

Cause: The compiler expects a function name.

3.5.568 F0350122, RCL Compiler: INTEGER expected

Display: F0350122

Non-fatal error, Other_Error

Cause: The compiler expects the INTEGER keyword.

3.5.569 F0350123, RCL Compiler: INTEGER too large

Display: F0350123

Non-fatal error, Other_Error

Cause: The integer value is too large.

3.5.570 F0350124, RCL Compiler: Read access not permitted

Display: F0350124

Non-fatal error, Other_Error

Cause: Read access is not permitted.

3.5.571 F0350125, RCL Compiler: Label already defined

Display: F0350125

Non-fatal error, Other_Error

Cause: The label is already defined.

3.5.572 F0350126, RCL Compiler: Label expected

Display: F0350126

Non-fatal error, Other_Error

Cause: The compiler expects a label.

3.5.573 F0350127, RCL Compiler: Label not defined

Display: F0350127

Non-fatal error, Other_Error

Cause: The label was not defined.

3.5.574 F0350128, RCL Compiler: JC-Point expected

Display: F0350128

Non-fatal error, Other_Error

Cause: JC Point (in axis coordinate) expected.

3.5.575 F0350129, RCL Compiler: @ - character not permitted

Display: F0350129

Non-fatal error, Other_Error

Cause: The compiler encountered the @ character that is not permitted.

3.5.576 F035012A, RCL Compiler: @ - character expected

Display: F035012A

Non-fatal error, Other_Error

Cause: The compiler expects the @ character.

3.5.577 F035012B, RCL Compiler: Symbol already exists

Display: F035012B

Non-fatal error, Other_Error

Cause: The symbol already exists.

3.5.578 F035012C, RCL Compiler: Label for structure element expected

Display: F035012C

Non-fatal error, Other_Error

Cause: The compiler expects a label for the structure element.

3.5.579 F035012D, RCL Compiler: Name not defined

Display: F035012D

Non-fatal error, Other_Error

Cause: The name is not defined.

MLC_TABLE Diagnostics

3.5.580 F035012E, RCL Compiler: Point or point variable expected

Display: F035012E

Non-fatal error, Other_Error

Cause: The compiler expects a point or point variable.**3.5.581 F035012F, RCL Compiler: Pair of points expected**

Display: F035012F

Non-fatal error, Other_Error

Cause: The compiler expects two points.**3.5.582 F0350130, RCL Compiler: Jump back only permitted in subroutine**

Display: F0350130

Non-fatal error, Other_Error

Cause: The return is only permitted within the subroutine.**3.5.583 F0350131, RCL Compiler: Write access not permitted**

Display: F0350131

Non-fatal error, Other_Error

Cause: Read access is not permitted.**3.5.584 F0350132, RCL Compiler: Jump not permitted**

Display: F0350132

Non-fatal error, Other_Error

Cause: The jump is not permitted.**3.5.585 F0350134, RCL Compiler: Type conflict**

Display: F0350134

Non-fatal error, Other_Error

Cause: RCL-Compiler: Type Conflict**3.5.586 F0350135, RCL Compiler: Lower limit exceeds upper limit**

Display: F0350135

Non-fatal error, Other_Error

Cause: The lower limit exceeds upper limit.**3.5.587 F0350136, RCL Compiler: Type incorrect**

Display: F0350136

Non-fatal error, Other_Error

Cause: The Type is incorrect.**3.5.588 F0350137, RCL Compiler: Invalid axis number**

Display: F0350137

Non-fatal error, Other_Error

Cause: The axis number is incorrect.**3.5.589 F0350138, RCL Compiler: Subroutine name expected**

Display: F0350138

Non-fatal error, Other_Error

Cause: The compiler expects the name for the subroutine.**3.5.590 F0350139, RCL Compiler: Variable expected**

Display: F0350139

Non-fatal error, Other_Error

Cause: The compiler expects a variable.**3.5.591 F035013A, RCL Compiler: Record variable expected**

Display: F035013A

Non-fatal error, Other_Error

Cause: The compiler expects a record variable.

3.5.592 F035013B, RCL Compiler: Point expected

Display: F035013B

Non-fatal error, Other_Error

Cause: The compiler expects a point.

3.5.593 F035013C, RCL Compiler: Invalid extension

Display: F035013C

Non-fatal error, Other_Error

Cause: The extension is incorrect.

3.5.594 F035013D, RCL Compiler: Too many arguments

Display: F035013D

Non-fatal error, Other_Error

Cause: Too many arguments were found.

3.5.595 F035013E, RCL Compiler: Too less arguments

Display: F035013E

Non-fatal error, Other_Error

Cause: Too few arguments were found.

3.5.596 F035013F, RCL Compiler: Not implemented

Display: F035013F

Non-fatal error, Other_Error

Cause: Instruction is not implemented.

3.5.597 F0350140, RCL Compiler: Compiler error

Display: F0350140

Non-fatal error, Other_Error

Cause: The compiler has issued an error.

3.5.598 F0350142, RCL Compiler: QLL file not present

Display: F0350142

Non-fatal error, Other_Error

Cause: The QLL file is not present.

3.5.599 F0350143, RCL Compiler: Error, file not found

Display: F0350143

Non-fatal error, Other_Error

Cause: The Error file is not present.

3.5.600 F0350144, RCL Compiler: File only accepted in main program

Display: F0350144

Non-fatal error, Other_Error

Cause: The file is only permitted in the main program.

3.5.601 F0350146, RCL Compiler: Error during compilation

Display: F0350146

Non-fatal error, Other_Error

Cause: The file is only permitted in the main program.

3.5.602 F0350147, RCL Compiler: Out of memory

Display: F0350147

Non-fatal error, Other_Error

Cause: Not enough available memory.

3.5.603 F0350148, RCL Compiler: IRD file error

Display: F0350148

Non-fatal error, Other_Error

Cause: The IRD file is incorrect.

MLC_TABLE Diagnostics

3.5.604 F0350149, RCL Compiler: Symbol file error

Display: F0350149

Non-fatal error, Other_Error

Cause: The symbol file is incorrect.**3.5.605 F035014A, RCL Compiler: Point file error**

Display: F035014A

Non-fatal error, Other_Error

Cause: The point file is incorrect.**3.5.606 F035014B, RCL Compiler: Error in error file**

Display: F035014B

Non-fatal error, Other_Error

Cause: The error file is incorrect.**3.5.607 F035014D, RCL Compiler: Keyword DEF incorrect**

Display: F035014D

Non-fatal error, Other_Error

Cause: The Keyword DEF is incorrect.**3.5.608 F035014E, RCL Compiler: Include file not present**

Display: F035014E

Non-fatal error, Other_Error

Cause: The Include file is missing.**3.5.609 F0350150, RCL Compiler: Axis name incorrect**

Display: F0350150

Non-fatal error, Other_Error

Cause: The axis name is not permitted.**3.5.610 F0350151, RCL Compiler: Index error**

Display: F0350151

Non-fatal error, Other_Error

Cause: The compiler encountered an index error.**3.5.611 F0350152, RCL Compiler: invalid program parameter**

Display: F0350152

Non-fatal error, Other_Error

Cause: Invalid program parameters were set.**3.5.612 F0350153, RCL Compiler: Keyword instead of label**

Display: F0350153

Non-fatal error, Other_Error

Cause: A label was encountered instead of a keyword.**3.5.613 F0350155, RCL Compiler: Comma expected**

Display: F0350155

Non-fatal error, Other_Error

Cause: The compiler expects a comma.**3.5.614 F0350156, RCL Compiler: SUB_END expected**

Display: F0350156

Non-fatal error, Other_Error

Cause: The compiler expects the SUB_END keyword.**3.5.615 F0350157, RCL Compiler: PROGRAM_END expected**

Display: F0350157

Non-fatal error, Other_Error

Cause: The compiler expects the PROGRAM_END keyword.

3.5.616 F0350158, RCL Compiler: Too many axes

Display: F0350158

Non-fatal error, Other_Error

Cause: The maximum number of axes for the Kinematics is reached.

3.5.617 F035015A, RCL Compiler: Number exists twice

Display: F035015A

Non-fatal error, Other_Error

Cause: A double number was recognized.

3.5.618 F035015B, RCL Compiler: Cannot add point on kinematics

Display: F035015B

Non-fatal error, Other_Error

Cause: The point can't be added to Kinematics.

3.5.619 F035015C, RCL Compiler: Kinematics name expected

Display: F035015C

Non-fatal error, Other_Error

Cause: The compiler expects a name for the Kinematics.

3.5.620 F035015D, RCL Compiler: Cannot add belt on kinematics

Display: F035015D

Non-fatal error, Other_Error

Cause: The belt cannot be assigned to the Kinematics.

3.5.621 F035015E, RCL Compiler: External program expected

Display: F035015E

Non-fatal error, Other_Error

Cause: The compiler expects an external program.

3.5.622 F035015F, RCL Compiler: INPUT/OUTPUT only permitted in decl.

Display: F035015F

Non-fatal error, Other_Error

Cause: Input/Output is only permitted in the declaration section.

3.5.623 F0350160, RCL Compiler: Address for INPUT/OUTPUT expected

Display: F0350160

Non-fatal error, Other_Error

Cause: The compiler expects an address for the Input/Output.

3.5.624 F0350161, RCL Compiler: Out of array

Display: F0350161

Non-fatal error, Other_Error

Cause: The field limit was exceeded.

3.5.625 F0350162, RCL Compiler: Wrong type in array

Display: F0350162

Non-fatal error, Other_Error

Cause: Wrong Type in Array

3.5.626 F0350163, RCL Compiler: Input/Output

Display: F0350163

Non-fatal error, Other_Error

Cause: Input/Output only component method allowed.

3.5.627 F0350164, RCL Compiler: Invalid channel address

Display: F0350164

Non-fatal error, Other_Error

Cause: The channel address is incorrect.

MLC_TABLE Diagnostics

3.5.628 F0350165, RCL Compiler: Coordinate expected

Display: F0350165

Non-fatal error, Other_Error

Cause: The compiler expects a Coordinate.**3.5.629 F0350166, RCL Compiler: Invalid kinamatics instruction**

Display: F0350166

Non-fatal error, Other_Error

Cause: The Kinematics instruction is not allowed.**3.5.630 F0350167, RCL Compiler: BEGIN expected**

Display: F0350167

Non-fatal error, Other_Error

Cause: The compiler expects the BEGIN keyword.**3.5.631 F0350168, RCL Compiler: Keyword conflict**

Display: F0350168

Non-fatal error, Other_Error

Cause: There is a keyword conflict.**3.5.632 F035016F, RCL Compiler: PKT file read / write error**

Display: F035016F

Non-fatal error, Other_Error

Cause: An error occurred during the reading / writing of a point file.**3.5.633 F0350179, RCL Compiler: Wrong compiler version**

Display: F0350179

Non-fatal error, Other_Error

Cause: RCL-Compiler: Wrong compiler version.**3.5.634 F035017C, RCL Compiler: Maximum table entry exceeded**

Display: F035017C

Non-fatal error, Other_Error

Cause: Maximum number of variable names exceeded.**3.5.635 F035017E, RCL Compiler: Maximum error count reached**

Display: F035017E

Non-fatal error, Other_Error

Cause: RCL-Compiler: Maximum error count reached. See compiler instruction MAX-ERRORS.**3.5.636 F0350185, RCL Compiler: Double INCLUDE - statement**

Display: F0350185

Non-fatal error, Access_Error

Cause: RCL-Compiler: Double INCLUDE - statement.**3.5.637 F0350186, RCL Compiler: EXTERN only permitted in main program**

Display: F0350186

Non-fatal error, Other_Error

Cause: RCL-Compiler: EXTERN is only permitted in the main program.**3.5.638 F0350188, RCL Compiler: Only one EXPORT program permitted**

Display: F0350188

Non-fatal error, Other_Error

Cause: RCL-Compiler: Only one EXPORT program permitted.**3.5.639 F0350189, RCL Compiler: Pointvariable not found**

Display: F0350189

Non-fatal error, Other_Error

Cause: The points could not be found in the point table.

3.5.640 F035018A, RCL Compiler: Different CID

Display: F035018A

Non-fatal error, Other_Error

Cause: The Comm ID differs during program export.

3.5.641 F035018C, RCL Compiler: No EXPORT variable found

Display: F035018C

Non-fatal error, Other_Error

Cause: No EXPORT variable could be found for the specified IMPORT variable.

3.5.642 F035018D, RCL Compiler: Different axis count of the kinematics

Display: F035018D

Non-fatal error, Other_Error

Cause: RCL-Compiler: The axis count differs in the Kinematics.

3.5.643 F035018E, RCL Compiler: Not defined kinematics

Display: F035018E

Non-fatal error, Other_Error

Cause: RCL-Compiler: The Kinematics is not defined.

3.5.644 F03501AC, RCL Compiler: Identifier expected

Display: F03501AC

Non-fatal error, Other_Error

Cause: RCL-Compiler: Identifier expected.

3.5.645 F03501AD, RCL Compiler: Type expected

Display: F03501AD

Non-fatal error, Other_Error

Cause: RCL-Compiler: Type expected.

3.5.646 F03501AE, RCL Compiler: RECORD expected

Display: F03501AE

Non-fatal error, Other_Error

Cause: RCL-Compiler: RECORD expected.

3.5.647 F03501AF, RCL Compiler: RECORD_END expected

Display: F03501AF

Non-fatal error, Other_Error

Cause: RCL-Compiler: RECORD_END expected.

3.5.648 F03501B0, RCL Compiler: IF expected

Display: F03501B0

Non-fatal error, Other_Error

Cause: RCL-Compiler: IF expected.

3.5.649 F0350200, RCL Compiler: File name too long

Display: F0350200

Non-fatal error, Other_Error

Cause: RCL-Compiler: Filename too long.

3.5.650 F0350212, RCL Compiler: Type name expected

Display: F0350212

Non-fatal error, Other_Error

Cause: RCL-Compiler: Type name expected.

3.5.651 F0350213, RCL Compiler: Identifier already defined

Display: F0350213

Non-fatal error, Other_Error

Cause: RCL-Compiler: Identifier already defined.

MLC_TABLE Diagnostics

3.5.652 F0350214, RCL Compiler: Keyword here not permitted

Display: F0350214

Non-fatal error, Other_Error

Cause: RCL-Compiler: Keyword not permitted here.**3.5.653 F0350216, RCL Compiler: Recursive data types not permitted**

Display: F0350216

Non-fatal error, Other_Error

Cause: RCL-Compiler: Recursive data types not permitted.**3.5.654 F0350217, RCL Compiler: Write/read from this data type not possible**

Display: F0350217

Non-fatal error, Other_Error

Cause: RCL-Compiler: Write/Read from this data type is not possible.**3.5.655 F0350218, RCL Compiler: Compare operator expected**

Display: F0350218

Non-fatal error, Other_Error

Cause: RCL-Compiler: Compare operator expected.**3.5.656 F0350219, RCL Compiler: Illegal INPUT type**

Display: F0350219

Non-fatal error, Other_Error

Cause: RCL-Compiler: Illegal INPUT type.**3.5.657 F035021A, RCL Compiler: Illegal OUTPUT type**

Display: F035021A

Non-fatal error, Other_Error

Cause: RCL-Compiler: Illegal OUTPUT type.**3.5.658 F035021B, RCL Compiler: Illegal CASE konstant**

Display: F035021B

Non-fatal error, Other_Error

Cause: RCL-Compiler: Illegal CASE constant.**3.5.659 F035021E, RCL Compiler: Illegal INPUT ARRAY**

Display: F035021E

Non-fatal error, Other_Error

Cause: RCL-Compiler: Illegal INPUT ARRAY.**3.5.660 F035021F, RCL Compiler: Illegal OUTPUT ARRAY**

Display: F035021F

Non-fatal error, Other_Error

Cause: RCL-Compiler: Illegal OUTPUT ARRAY.**3.5.661 F0350220, RCL Compiler: Wrong type during parameter transfer**

Display: F0350220

Non-fatal error, Other_Error

Cause: RCL-Compiler: Wrong type during parameter transfer.**3.5.662 F0350221, RCL Compiler: File only accepted in main program**

Display: F0350221

Non-fatal error, Other_Error

Cause: RCL-Compiler: File is only permitted in main program.**3.5.663 F0350222, RCL Compiler: INPUT/OUTPUT only permitted in main program**

Display: F0350222

Non-fatal error, Other_Error

Cause: RCL-Compiler: INPUT/OUTPUT is only permitted in main program.

3.5.664 F0350223, RCL Compiler: Data type FILE in RECORD not permitted

Display: F0350223

Non-fatal error, Other_Error

Cause: RCL-Compiler: FILE data type not permitted in RECORD.

3.5.665 F0350224, RCL Compiler: Kinematics konflikt

Display: F0350224

Non-fatal error, Other_Error

Cause: RCL-Compiler: Kinematics conflict.

3.5.666 F0350227, RCL Compiler: Wrong format for export file

Display: F0350227

Non-fatal error, Other_Error

Cause: RCL-Compiler: Wrong format for export file.

3.5.667 F0350228, RCL Compiler: No values assumed

Display: F0350228

Non-fatal error, Other_Error

Cause: RCL-Compiler: No values assumed.

3.5.668 F035022B, RCL Compiler: Equal or greater than expected

Display: F035022B

Non-fatal error, Other_Error

Cause: RCL-Compiler: Equal or greater than expected.

3.5.669 F035022C, RCL Compiler: Constant expected

Display: F035022C

Non-fatal error, Other_Error

Cause: RCL-Compiler: Constant expected.

3.5.670 F035022D, RCL Compiler: IF_END expected

Display: F035022D

Non-fatal error, Other_Error

Cause: RCL-Compiler: END_IF expected.

3.5.671 F035022E, RCL Compiler: Two points expected

Display: F035022E

Non-fatal error, Other_Error

Cause: RCL-Compiler: Two points expected.

3.5.672 F035022F, RCL Compiler: LABEL incompatible

Display: F035022F

Non-fatal error, Other_Error

Cause: RCL-Compiler: LABEL incompatible.

3.5.673 F0350230, RCL Compiler: Wrong data type in CASE structure

Display: F0350230

Non-fatal error, Other_Error

Cause: RCL-Compiler: Wrong data type in CASE structure.

3.5.674 F0350232, RCL Compiler: Multiple LABEL definition

Display: F0350232

Non-fatal error, Other_Error

Cause: RCL-Compiler: Multiple LABEL definitions.

3.5.675 F0350233, RCL Compiler: CASE table overflow

Display: F0350233

Non-fatal error, Other_Error

Cause: RCL-Compiler: CASE table overflow.

MLC_TABLE Diagnostics

- 3.5.676 F0350234, RCL Compiler: Division by zero**
Display: F0350234 Non-fatal error, Other_Error
Cause: RCL-Compiler: Division by zero.
- 3.5.677 F0350235, RCL Compiler: Positive number expected**
Display: F0350235 Non-fatal error, Other_Error
Cause: RCL-Compiler: Positive digit expected.
- 3.5.678 F035023A, RCL Compiler: Translation aborted**
Display: F035023A Non-fatal error, Other_Error
Cause: RCL-Compiler: Translation aborted.
- 3.5.679 F035023B, RCL Compiler: Error during memory approval**
Display: F035023B Non-fatal error, Other_Error
Cause: RCL-Compiler: Error During Memory Approval
- 3.5.680 F035023C, RCL Compiler: End of PKT-file reached**
Display: F035023C Non-fatal error, Other_Error
Cause: RCL-Compiler: End of PKT file reached.
- 3.5.681 F035023D, RCL Compiler: Error, cannot create point in PKT-File**
Display: F035023D Non-fatal error, Other_Error
Cause: RCL-Compiler: Error while placing a point in the PKT file.
- 3.5.682 F035023F, RCL Compiler: Keyword T expected**
Display: F035023F Non-fatal error, Other_Error
Cause: RCL-Compiler: Keyword T expected.
- 3.5.683 F0350242, RCL Compiler: Variable or expression expected**
Display: F0350242 Non-fatal error, Other_Error
Cause: RCL-Compiler: Variable or expression expected.
- 3.5.684 F0350243, RCL Compiler: Program name expected**
Display: F0350243 Non-fatal error, Other_Error
Cause: RCL-Compiler: Program name expected.
- 3.5.685 F0350244, RCL Compiler: Program start expected**
Display: F0350244 Non-fatal error, Other_Error
Cause: RCL-Compiler: Program start expected.
- 3.5.686 F0350245, RCL Compiler: Illegal program name**
Display: F0350245 Non-fatal error, Other_Error
Cause: RCL-Compiler: Illegal program name.
- 3.5.687 F0350247, RCL Compiler: Alignment unequal four**
Display: F0350247 Non-fatal error, Other_Error
Cause: RCL-Compiler: Alignment not four.

3.5.688 F0350249, RCL Compiler: Illegal kinematics name

Display: F0350249

Non-fatal error, Other_Error

The Kinematics name (K-0-0002, Kinematics designation) is illegal.

Cause: Please check:

- the length of the name (12 characters max.),
- the characters used regarding their permissibility (A...Z, a...z, 0..9, '_'),
- the first character (first character has to be a letter)
- and the multiple use of the name.



The compiler is case sensitive.

"Robi_1" is identical to "ROBI_1"

3.5.689 F0350484, RCL Compiler: Illegal kinematics number

Display: F0350484

Non-fatal error, Other_Error

Cause: RCL-Compiler: Illegal Kinematics number.

3.5.690 F0360000, MLPI: Success

Display: F0360000

Non-fatal error, INPUT_RANGE_ERROR

The MLPI call was executed successfully.

3.5.691 F0360001, MLPI: Common error

Display: F0360001

Non-fatal error, INPUT_RANGE_ERROR

The MLPI call was aborted with a general error.

Cause: The cause was not specified in detail. Check the diagnostic logbook for further errors which might have be linked causally to the MLPI call.

Solution: Correct the MLPI call.

3.5.692 F0360002, MLPI: Not supported

Display: F0360002

Non-fatal error, INPUT_RANGE_ERROR

The executed MLPI call was aborted since the requested action is not supported by the function.

Cause: The cause was not specified in detail. Check the diagnostic logbook for further errors which might have be linked causally to the MLPI call.

Solution: Correct the MLPI call.

3.5.693 F0360003, MLPI: Invalid argument

Display: F0360003

Non-fatal error, INPUT_RANGE_ERROR

The executed MLPI call was aborted since one of the transferred arguments was invalid.

Cause: The cause was not specified in detail. Check the diagnostic logbook for further errors which might have be linked causally to the MLPI call.

Solution: Correct the MLPI call.

3.5.694 F0360004, MLPI: Out of memory

Display: F0360004

Non-fatal error, INPUT_RANGE_ERROR

The executed MLPI call was aborted since the memory for the requested action was insufficient.

MLC_TABLE Diagnostics

Cause: The cause was not specified in detail. Check the diagnostic logbook for further errors which could be linked causally to the MLPI call.

Solution: Correct the MLPI call.

3.5.695 F0360005, MLPI: Timeout

Display: F0360005

Non-fatal error, INPUT_RANGE_ERROR

The executed MLPI call was aborted since the given monitoring time has been exceeded.

Cause: The cause was not specified in detail. Check the diagnostic logbook for further errors which could be linked causally to the MLPI call.

There might be an interference in the network connection between the PC and the control.

Solution: Correct the MLPI call.

3.5.696 F0360006, MLPI: Server exception

Display: F0360006

Non-fatal error, INPUT_RANGE_ERROR

The executed MLPI call was aborted since an exception occurred at the server.

Cause: The cause was not specified in detail. Check the diagnostic logbook for further errors which could be linked causally to the MLPI call.

Solution: Please contact customer service.

3.5.697 F0360007, MLPI: Connection failed

Display: F0360007

Non-fatal error, INPUT_RANGE_ERROR

The executed MLPI call was aborted since the target participant was not reached.

Cause: There is an interference in the network connection between the PC and the control or the target address is incorrect.

Remedy: Correct the MLPI call.

3.5.698 F0360008, MLPI: Create error

Display: F0360008

Non-fatal error, INPUT_RANGE_ERROR

The executed MLPI call was aborted since the requested object could not be created.

Cause: The cause was not specified in detail. Check the diagnostic logbook for further errors which could be linked causally to the MLPI call.

Solution: Correct the MLPI call.

3.5.699 F0360009, MLPI: System error

Display: F0360009

Non-fatal error, INPUT_RANGE_ERROR

The executed MLPI call was aborted since an internal system error occurred.

Cause: The cause was not specified in detail. Check the diagnostic logbook for further errors which might have be linked causally to the MLPI call.

Solution: Please contact the customer service.

3.5.700 F036000A, MLPI: Buffer too short

Display: F036000A

Non-fatal error, INPUT_RANGE_ERROR

The executed MLPI call was aborted since the transferred data buffer was too small.

Cause: The cause was not specified in detail.
Check the diagnostic logbook for further errors which might be linked causally to the MLPI call or transfer a bigger buffer to the MLPI call.

Solution: Correct the MLPI call.

3.5.701 F036000B, MLPI: Invalid signature

Display: F036000B Non-fatal error, INPUT_RANGE_ERROR
The executed MLPI call was aborted since the function signature was incorrect.

Cause: The cause was not specified in detail. Check the diagnostic logbook for further errors which could be linked causally to the MLPI call.

Solution: Correct the MLPI call.

3.5.702 F036000C, MLPI: Start error

Display: F036000C Non-fatal error, INPUT_RANGE_ERROR
The executed MLPI call was aborted since the requested action could not be started.

Cause: The cause was not specified in detail. Check the diagnostic logbook for further errors which could be linked causally to the MLPI call.

Solution: Correct the MLPI call.

3.5.703 F036000D, MLPI: Watchdog warning

Display: F036000D Non-fatal error, INPUT_RANGE_ERROR
An MLPI watchdog elapsed and has triggered a warning.

Cause: An MLPI task did not reset the watchdog within the configured time slot.

Solution: Correct the MLPI call and check the watchdog settings.

3.5.704 F0370010, TaskViewer record already started

Display: F0370010 Non-fatal error, Other_Error

Cause: The TaskViewer trace was already started.

Solution: The TaskViewer trace must first be stopped before it can be restarted.
The trace can be stopped using the command C-0-1042 in the TaskViewer dialog window.

3.5.705 F0370011, TaskViewer record not started

Display: F0370011 Non-fatal error, Other_Error

Cause: The TaskViewer trace has not yet been started.

Solution: The TaskViewer trace must first be started before it can be stopped.
The trace can be started using the command C-0-1041 in the TaskViewer dialog window.

3.5.706 F0370012, Create of TaskViewer file failed

Display: F0370012 Non-fatal error, Other_Error

Cause: An error occurred when generating the TaskViewer file on the Compact Flash card. For this reason, the TaskViewer trace could not be executed successfully.

Solution: Repeat the TaskViewer trace. If the error continues to occur, please contact customer service.

MLC_TABLE Diagnostics

3.5.707 F0370013, Start of TaskViewer record failed

Display: F0370013

Non-fatal error, Other_Error

Cause: An error occurred when starting the TaskViewer trace and the trace could not be started correctly.

Solution: Start the TaskViewer trace again. If the error continues to occur, please contact customer service.

3.5.708 F0370014, TaskViewer record failed

Display: F0370014

Non-fatal error, Other_Error

Cause: An error occurred during the TaskViewer trace and the trace could not be executed correctly.

Solution: Repeat the TaskViewer trace. If the error continues to occur, please contact customer service.

3.5.709 F0370015, Setting of TaskViewer buffer not possible

Display: F0370015

Non-fatal error, Other_Error

Cause: When the size of the TaskViewer buffer was set (C-0-0425), an error occurred and the size could not be modified.

Remedy: Reset the buffer size. If the error continues to occur, please contact customer service.

3.5.710 F039**, PLC Error Messages from the 3S Kernel**

Cause: The 3S PLC kernel issues an error.

Solution: There is no further information available on this error.
Check the IndraLogic online error list or contact the customer support.

3.5.711 F03A2002, Inline bus errors

Display: F03A2002

Non-fatal error, Resource_Error

Common message: Error caused by modules of the Inline bus.

Cause: At least one module of the Inline bus has caused an error. The precise position and type of error should be taken from the short text.

Solution: Check the arrangement accordingly.

3.5.712 F03A**, PLC Error Messages from Company Components**

Cause: One of the company components issues an error.

Solution: There is no further information available on this error.
Contact customer support.

3.6 F1 Errors, Axis Group Error**3.6.1 F1 Errors, Error Reaction**

Logbook entry is generated; message is shown on the display.

If an error of severity F2 "Disengage the axis" is issued by an axis belonging to a group, this axis is currently lost to the group. The group reacts with an F1 error, "Set all axes in the group to standstill".

3.6.2 F10B0001, External synchron clock is missing

Display: F10B0001

Axis group error, System_Error

MLC_TABLE Diagnostics

The communication of the sercos interface bus is synchronized with the cross communication module,
however the cross communication module does not synchronize the control.

- Cause:**
- The cross communication module was operated incorrectly,
 - the cross communication module is defective.

Solution: Replace the module, correct commissioning.

3.6.3 F12C0041, Protocol length file I/O too long

Display: F12C0041 Axis group error, Access_Error

Cause: Protocol length for I/O file exceeded.

Remedy: Please contact customer service.

3.6.4 F12C0042, Unknown function data I/O

Display: F12C0042 Axis group error, Access_Error

Cause: Unknown function in I/O data.

Remedy: Please contact customer service.

3.6.5 F12C0062, Passing factor (R_PTP) out of range

Display: F12C0062 Axis group error, System_Error

An error occurred as the passing factor (R_PTP) was set.

Cause: The passing factor R_PTP in the RCL program is too large (>100% or >1.0) or negative.

The axis parameters A-0-0230 for the path and/or orientation axes are not correct.

Remedy: Check the R_PTP value in the RCL program.

Check the parameters A-0-0230 for the path and orientation axes.



In PTP interpolation, R_PTP is analogous to V_PTP as a factor and refers to the passing distance in parameter A-0-0230 for the axes involved.

3.6.6 F12C006C, Error during RoCo system startup no. 3

Display: F12C006C Axis group error, Access_Error

Cause: An error occurred during the system startup of the RobotControl.

Remedy: Please contact customer service.

3.6.7 F12C0074, Positioning limits of an axis was exceeded

Display: F12C0074 Axis group error, System_Error

Cause: The actual position of an axis exceeded the limit values set in the parameters "A-0-0030, Position limit value, positive" or "A-0-0031, Position limit value, negative".

Solution: Move axis to the valid range. Check the set position limit values if necessary.

3.6.8 F12C007A, Tensor-Interpolation: Angles not in main area

Display: F12C007A Axis group error, System_Error

Cause: Tensor-Interpolation: The Eulerangles cannot be transformed into the main region.

Remedy: Change path (Orientation).

MLC_TABLE Diagnostics

3.6.9 F12C007B, Tensor-Interpolation: Angles not calculably

Display: F12C007B

Axis group error, System_Error

Cause: Tensor-Interpolation: The Eulerangles cannot be calculated.**Remedy:** Change path (Orientation).**3.6.10 F12C007E, WC move not possible without reference points**

Display: F12C007E

Axis group error, System_Error

Cause: A kinematic is to be moved in the RCL process which has not yet travelled to the reference points.**Remedy:** Via PHG-Mode 7.3.2, the line in the BAPS program and with that the kinematic to be referenced can be found.**3.6.11 F12C007F, No feed-allow-signal within belt synchronisation**

Display: F12C007F

Axis group error, System_Error

Cause: The belt synchronous kinematics is prevented from moving by RC input signals of the PLC (e.g. feed allow).**Remedy:** Error in PLC program (e.g. limit switches, light barriers).**3.6.12 F12C0083, Error during RoCo system startup no. 5**

Display: F12C0083

Axis group error, Access_Error

Cause: An error occurred during the system startup of the RobotControl.**Remedy:** Please contact customer service.**3.6.13 F12C0084, Error during RoCo system startup no. 7**

Display: F12C0084

Axis group error, Access_Error

Cause: An error occurred during the system startup of the RobotControl.**Remedy:** Please contact customer service.**3.6.14 F12C0085, Error during RoCo system startup no. 9**

Display: F12C0085

Axis group error, Access_Error

Cause: An error occurred during the system startup of the RobotControl.**Remedy:** Please contact customer service.**3.6.15 F12C0086, Error during RoCo system startup no. 11**

Display: F12C0086

Axis group error, Access_Error

Cause: An error occurred during the system startup of the RobotControl.**Remedy:** Please contact customer service.**3.6.16 F12C0087, Error during RoCo system startup no. 13**

Display: F12C0087

Axis group error, Access_Error

Cause: An error occurred during the system startup of the RobotControl.**Remedy:** Please contact customer service.**3.6.17 F12C0088, Error during RoCo system startup no. 15**

Display: F12C0088

Axis group error, Access_Error

Cause: An error occurred during the system startup of the RobotControl.**Remedy:** Please contact customer service.

3.6.18 F12C0089, Axis list is not correct

Display: F12C0089

Axis group error, Access_Error

Cause: Axis list is not correct.

Remedy: Please contact customer service.

3.6.19 F12C008A, Transformation parameter does not fit to robot type

Display: F12C008A

Axis group error, System_Error

Cause: The transformation parameters of a created kinematics do not fit into the transformation schema of the robot type set.

Solution: The transformation parameters of all created kinematics have to be adjusted.

- The number and type of the created axes (K-0-0008, axis configuration list)
- The axis lengths set (K-0-0040, Transformation, lengths of the mechanics)
- The axis couplings set (K-0-0041, Transformation, factors)

The specifications for the transformation parameters can be found in the documentation for the set robot type (K-0-0031, Transformation schema).

To adjust the parameters, switch to phase 2.

3.6.20 F12C008B, Transformation error: Singular system of equation

Display: F12C008B

Axis group error, System_Error

Cause: The equation system that appears in the coordinate transformation for oblique portals is singular, therefore the inverse position kinematics cannot be calculated.

Solution: Modify angle deviations, inform customer service, only relevant with robot types 14, 15, 16, 17.

3.6.21 F12C008C, MODE does not turn to -1

Display: F12C008C

Axis group error, System_Error

Cause: *Fatal error in start-up of control.*

- Parameter error, e.g. CLOCK START TIME, is not consistent with the digital drives.
- Drives have no voltage,
- Transmission via CAN bus is faulty,

Solution: Inform customer service.

3.6.22 F12C0099, Beltsync: Endpoint not reachable

Display: F12C0099

Axis group error, System_Error

The begin length (BeginLength) defined with SPC_FCT 53 was exceeded.

Cause: The belt-synchronous synchronization position (first traversing command after SYNCHRON) exceeds the latest begin length (BeginLength)

Remedy:

- Check required processing time,
- if required, delay latest begin (see SPC_FCT 53 "BeginLength"),
- reduce belt velocity if required,
- check execution/traversing time between point definition and start of SYNCHRON command,

MLC_TABLE Diagnostics

- correlate programmed point before executing the SYNCHRON command with current belt value and belt velocity.

3.6.23 F12C009A, Beltsync: Limit of beltcounter (SPC_FCT 53) exceeded

Display: F12C009A

Axis group error, System_Error

The begin length (BeginLength) defined with SPC_FCT 53 was exceeded.

Cause: The belt-synchronous target position is not within the belt range.

- Remedy:**
- Check required processing time,
 - increase belt range if required (see SPC_FCT 53 "FullLength"),
 - reduce dwell time in belt-synchronous range if required,
 - reduce belt velocity if required,
 - start earlier with desynchronization motion if required.

3.6.24 F12C009B, Transformation length is 0

Display: F12C009B

Axis group error, Access_Error

Cause: One of the transformation lengths in parameter "K-0-0040, Transformation, lengths of the mechanics" is 0.**Solution:** Switch to phase 2 and adjust the values in K-0-0040 in accordance with the transformation documentation.**3.6.25 F12C00A3, Interpolation type not specified**

Display: F12C00A3

Axis group error, Access_Error

Cause: Interpolation type for traveling motion not specified.**Remedy:** Please contact customer service.**3.6.26 F12C00A6, Watchdog expired**

Display: F12C00A6

Axis group error, Access_Error

The device was switched off by the firmware.

Cause: The firmware issued an error.**Remedy:** Please contact the customer service.**3.6.27 F12C00AA, Beltsync: Kinematics in singular position**

Display: F12C00AA

Axis group error, System_Error

Cause: Kinematics is in singular position.**Remedy:** Move kinematics to valid range in manual mode.

Check programmed points and belt position.

3.6.28 F12C00AB, Kinematics in singular position

Display: F12C00AB

Axis group error, System_Error

Cause: Kinematics is in singular position.**Remedy:** Move kinematics into valid range in Manual.

Check programmed points.

3.6.29 F12C00AD, Travel range limit JC reached

Display: F12C00AD

Axis group error, System_Error

Cause: Axis has reached the software limit switches defined in machine parameters P204, P205.

Remedy: Move kinematic into valid range in Manual.
Check programmed points.

3.6.30 F12C00AE, Beltsync: Travel block activated too late

Display: F12C00AE Axis group error, System_Error

Cause: A belt-synchronous block has only been activated after the belt has exceeded the belt value of the preceding belt synchronous travel block. This occurs when the travel block is activated too late.

Remedy: Input queries delay the block preparation any computations, loops.
Higher priority processes, many equal priority processes.
Access to occupied resources, e.g. kinematics, devices.
Insufficient time for block preparation, P5.

3.6.31 F12C00AF, Resulting axis velocity limit exceeded

Display: F12C00AF Axis group error, System_Error

Cause: The axis velocity exceeds the limit values defined for a linear motion in parameters "A-0-0032 Velocity limit value, positive", "A-0-0033 Velocity limit value, negative" or "A-0-0034 Acceleration limit value, bipolar".

Solution: Reduce the programmed velocity of the linear motion. Check the set axis limit values if necessary.

3.6.32 F12C00B0, Ambiguity with beltsynchronisation

Display: F12C00B0 Axis group error, System_Error

Cause: Programmed point and interpolation direction do not agree.

Remedy: Check belt position.

3.6.33 F12C00B1, Interpolation in wrong direction

Display: F12C00B1 Axis group error, System_Error

Cause: Programmed point and interpolation direction do not correspond.

Remedy: Check RCL program.

3.6.34 F12C00B2, AUTO/MANUAL change not allowed

Display: F12C00B2 Axis group error, System_Error

Cause: During travel the corresponding kinematic has been switched to Manual.

Remedy: First stop active programs; then switch to Manual.

3.6.35 F12C00B4, Beltsync: 1. BS-Travel block activated too late

Display: F12C00B4 Axis group error, System_Error

Cause: The 1st belt-synchronous block has been activated only after the belt had exceeded the belt value defined in the last travel block before belt-synchronous.

Remedy: Program is started too late.
Travel movements take longer because axes are not in position.
Travel distance longer because of end point of last program.
Belt runs too fast.

3.6.36 F12C00B5, RoCo Watchdog 2 - Error

Display: F12C00B5 Axis group error, Access_Error

Cause: RoCo Watchdog 2 - Error.

MLC_TABLE Diagnostics

Remedy: Please contact customer service.

3.6.37 F12C00B6, Beltsync: Block end reached too late

Display: F12C00B6

Axis group error, System_Error

Cause: The end of a belt-synchronous block has only been reached when the belt had already exceeded the belt value defined in this travel block.

Remedy: Too steep geometry.

Acceleration resp. deceleration values programmed too low.

Too long jerk limit times for sin 2 slope.

Too short point sequence.

During the check at the block start, the tolerance time, e.g. by retriggering, was still active.

3.6.38 F12C0100, RoCo watchdog error

Display: F12C0100

Axis group error, System_Error

Cause: RoCo Watchdog error.

Remedy: Please contact customer service.

3.6.39 F12C0316, File open for read

Display: F12C0316

Axis group error, System_Error

Cause: File is already open for read.

Remedy: Check up your program.

3.6.40 F12C0317, File open for write

Display: F12C0317

Axis group error, System_Error

Cause: File is already open for write.

Remedy: Check up your program.

3.6.41 F12C031A, Block not initialized

Display: F12C031A

Axis group error, System_Error

Cause: Block not initialized.

Remedy: Inform after-sales service.

3.6.42 F12C031D, Block not connected

Display: F12C031D

Axis group error, System_Error

Cause: Block not connected.

Remedy: Inform after-sales service.

3.6.43 F12C0406, Invalid SPC_FCT

Display: F12C0406

Axis group error, System_Error

Cause: A SPC_FCT was called, which is not longer supported.

Remedy: Check the declaration number of the SPC_FCT.

3.6.44 F12C0407, SPC_FCT 53 was called with wrong parameters

Display: F12C0407

Axis group error, System_Error

This error occurs if processing took place with an incorrect belt in the RCL program or via Motion function blocks of a kinematics.

The error message is caused by the following when using RCL programs:

MLC_TABLE Diagnostics

- Belt type 4 with the keyword SYNCHRONOUS was used in the RCL program without calling special function 53 before.
- When calling special function 53, a value smaller than or equal to 0 was programmed as the total length of the belt-synchronous workspace.
- When calling special function 53, a value smaller than or equal to 0 was programmed as starting length.
- When calling special function 53, a value greater than the total length was programmed as starting length.
- Special function 53 was called while the kinematics travels synchronously to a belt.

The error message is caused by the following when using PLC Motion function blocks of the kinematics:

- A Motion function block with a belt value was called without using the function block ML_SetBeltParameter before.
- A value smaller than or equal to 0 was specified as FullLength at the function block.
- A value smaller than or equal to 0 was specified as BeginLength at the function block.
- A value greater than the value specified at FullLength was specified as BeginLength at the function block ML_SetBeltParameter.
- The ML_SetBeltParameter function block was used even though the kinematics travels synchronously to a belt.

The error message has the following general causes:

- There are points in the belt-synchronous workspace that cannot be transformed between spatial and machine coordinates.

3.6.45 F12C0408, Error at the last beltsynchronous movement block

Display: F12C0408

Axis group error, System_Error

Cause: At the detection of the last beltsynchronous movement block an error occurs.

Remedy: *Error position SYNCHRON_END:*

- No last movement block was detected.

Error position movement block:

- A second last movement block was detected.

3.6.46 F12C0410, Acceleration not allowed

Display: F12C0410

Axis group error, System_Error

Cause: This error occurs if an invalid value was programmed for the deceleration or acceleration in the RCL program or via Motion function blocks.

Programming	Permitted values
RCL: A = x	$x \geq 1 \text{ mm/s}^2$
RCL: AFACTOR = x	$0.0001 \leq x \leq 1.2$
RCL: DFACTOR = x	$0.0001 \leq x \leq 1.2$

MLC_TABLE Diagnostics

Programming	Permitted values
<i>PLC function blocks</i> - MC_MoveLinearAbsolute.Acceleration := x - MC_MoveLinearRelative.Acceleration := x - MC_MoveCircularAbsolute.Acceleration := x	$x \geq 1 \text{ mm/s}^2$
<i>PLC function blocks</i> - MC_MoveLinearAbsolute.Deceleration := x - MC_MoveLinearRelative.Deceleration := x - MC_MoveCircularAbsolute.Deceleration := x	$0.0001 \leq (x/\text{Acceleration}) \leq 1.2$
<i>PLC function blocks</i> - MC_MoveDirectAbsolute.Acceleration := x - MC_MoveDirectAbsolute.Deceleration := x	$0.01\% \leq x \leq 120\%$

Fig.3-4: Permitted values for the acceleration or deceleration of a kinematics

3.6.47 F12C041A, Process error

Display: F12C041A

Axis group error, System_Error

Cause: Process error.**Remedy:** Inform after-sales service.**3.6.48 F12C041B, Process already exists**

Display: F12C041B

Axis group error, System_Error

Cause: An already existing process is started for a second time.**Remedy:** Check RCL program.**3.6.49 F12C041C, Invalid travel time**

Display: F12C041C

Axis group error, System_Error

Cause: The programmed travel time T is negative or equals zero.**Remedy:** Check RCL program.**3.6.50 F12C041D, Velocity not allowed**

Display: F12C041D

Axis group error, System_Error

This error occurs if an invalid value was programmed for the velocity in the RCL program or via Motion function blocks.

Programming	Permitted values
RCL: V = x	$x \geq 1 \text{ mm/s}$
RCL: V_PTP = x	$0\% \leq x \leq 100\%$
RCL: VFACTOR = x	$0.0001 \leq x \leq 6.0000$

MLC_TABLE Diagnostics

Programming	Permitted values
<i>PLC function blocks</i> - MC_MoveLinearAbsolute.Velocity := x - MC_MoveLinearRelative.Velocity := x - MC_MoveCircularAbsolute.Velocity := x	$x \geq 1 \text{ mm/s}$
<i>PLC function blocks</i> MC_MoveDirectAbsolute.Velocity := x	$0\% \leq x \leq 100\%$

Fig.3-5: Permitted values for the velocity of a kinematics

3.6.51 F12C041E, Impermissible jerk

Display: F12C041E

Axis group error, System_Error

This error occurs if an invalid value was programmed for the jerk in the RCL program or via Motion function blocks.

Programming	Permitted values
RCL: J = x	$x > 0 \text{ mm/s}^3$
<i>PLC function blocks</i> - MC_MoveLinearAbsolute.Jerk := x - MC_MoveLinearRelative.Jerk := x - MC_MoveCircularAbsolute.Jerk := x	$x > 0 \text{ mm/s}^3$

Fig.3-6: Permitted values for the jerk of a kinematics

3.6.52 F12C041F, User memory overflow

Display: F12C041F

Axis group error, System_Error

Cause: No place in user memory.

Remedy: Delete not necessary file from the memory.

3.6.53 F12C0420, WRITE_BEGIN expected

Display: F12C0420

Axis group error, System_Error

Cause: A WRITE command has been pro-grammed, without opening the file by WRITE_BEGIN before.

Remedy: Check RCL program.

3.6.54 F12C0421, File repeated opened

Display: F12C0421

Axis group error, System_Error

Cause: File has been opened for reading for more than 127 times.

Remedy: Check RCL program and/or preceding operation.

3.6.55 F12C0422, File already opened

Display: F12C0422

Axis group error, System_Error

Cause: Is also used if in RCL/file-I/O a file opened for reading is to be written. In this case, the file must be closed with the CLOSE command.

Remedy: Check RCL program and/or pre-ceding operation.

3.6.56 F12C0423, Invalid file name

Display: F12C0423

Axis group error, System_Error

MLC_TABLE Diagnostics

Cause: File name in an ASSIGN statement is longer than 8 characters or contains unauthorized characters.

Solution: Check ASSIGN statement in the RCL program.

3.6.57 F12C0424, End of file reached while READ

Display: F12C0424

Axis group error, System_Error

Cause: Is read too often.

Remedy: Check RCL program.

Use END_OF_FILE command.

3.6.58 F12C0426, Missing DAT-File

Display: F12C0426

Axis group error, System_Error

Cause: Selected file is not available, wrong name.

Remedy: Check RCL program.

Check memory contents.

3.6.59 F12C0427, Read access to a file which is opened for write

Display: F12C0427

Axis group error, System_Error

Cause: Read access to a file opened for writing.

Remedy: Check RCL program.

3.6.60 F12C0428, READ_BEGIN expected

Display: F12C0428

Axis group error, System_Error

Cause: A READ-command has been programmed, without opening the file with READ_BEGIN before.

Remedy: Check RCL program.

3.6.61 F12C042A, Missing WCSYST/TOOLS.DAT

Display: F12C042A

Axis group error, System_Error

Cause: No workpiece file "WCSYST.DAT" or no tool file "TOOLS.DAT" is present in the memory.

Solution: The files have not yet been transferred to the control. These are located in the IndraWorks project under the "Robot" node in the "Global Data" directory and can be stored on the MLC.

3.6.62 F12C042B, WCSYST/TOOLS name missing

Display: F12C042B

Axis group error, System_Error

A coordinate system is enabled which is either not defined in WCSYST.DAT or TOOLS.DAT or the name is misspelled in the user program. The "DAT" files to be checked are located in the IndraWorks project under the "Robot" node in the "Global Data" directory.

3.6.63 F12C042D, Wrong parameters for external subroutine

Display: F12C042D

Axis group error, System_Error

Cause: The transfer parameters do not correspond with the declared place holders of the external sub-routine.

Remedy: Check RCL program.

3.6.64 F12C042E, Wrong number of parameters for external subroutine

Display: F12C042E

Axis group error, System_Error

Cause: The transfer parameters do not correspond with the declared place holders of the external sub-routine.

Remedy: Check RCL program.

3.6.65 F12C042F, Wrong type of parameters for external subroutine

Display: F12C042F

Axis group error, System_Error

Cause: The transferred parameter is of another type as the place holder in the external subroutine.

Remedy: Check RCL program.

3.6.66 F12C0430, Wrong declaration of parameters for ext. subroutine

Display: F12C0430

Axis group error, System_Error

Cause: The parameter declaration in the main program and the subroutine (value/variable) do not agree.

Remedy: Check RCL program.

3.6.67 F12C0431, Program includes parameters

Display: F12C0431

Axis group error, System_Error

Cause: An external subroutine (with parameters) has been started as main program.

Remedy: Check RCL program.

3.6.68 F12C0432, INTEGER overflow

Display: F12C0432

Axis group error, System_Error

Cause: Conversion result does not correspond to the permissible format for INTEGER variable $[-2^{31}$ to $+2^{31}-1$].

Remedy: Check RCL program.

3.6.69 F12C0433, Workspace violation

Display: F12C0433

Axis group error, System_Error

Cause: A traversing instruction violates the configured safe zones.

Solution: Check the traversing instructions and the configuration of the safe zones in the parameters K-0-0155, K-0-0156/ K-0-0157 to K-0-0219.

3.6.70 F12C0435, Illegal parameter for external subroutine

Display: F12C0435

Axis group error, System_Error

Cause: In the RCL program, a file variable, an array or an I/O-variable has been transferred as parameter to an external program.

Remedy: Check RCL program.

3.6.71 F12C0436, Format error in DAT-file

Display: F12C0436

Axis group error, System_Error

Cause: Type of the variable to be read does not correspond with the format in the file.

Remedy: Check RCL program and dat. file.

MLC_TABLE Diagnostics

3.6.72 F12C0437, SUB-Process stops its own mainprocess

Display: F12C0437

Axis group error, System_Error

Cause: A main process has started a subroutine (PARALLEL, ALSO, PARALLEL_END). In this process, the main process is tried to be stopped with STOP.

Remedy: Check RCL program(s).

3.6.73 F12C0438, Division by zero in RCL program

Display: F12C0438

Axis group error, System_Error

Cause: e.g. a not preset RCL variable.

Remedy: Check RCL program.

3.6.74 F12C0439, Square root with negative argument in RCL program

Display: F12C0439

Axis group error, System_Error

Cause: In the RCL program, the root is taken from a negative number.

Remedy: Check RCL program.

3.6.75 F12C043A, PTP within belt synchronous movement

Display: F12C043A

Axis group error, System_Error

Cause: PTP movement has been programmed with active BELT-SYNCHRON.

Remedy: Check RCL program.

3.6.76 F12C043C, Point not reachable

Display: F12C043C

Axis group error, System_Error

Cause: Point cannot be travelled to with the currently used robot arm direction.

Remedy: Check RCL program.

3.6.77 F12C043D, Wrong PKT file

Display: F12C043D

Axis group error, System_Error

Cause: Pnt-file and ird-file do not agree.

Remedy: It is possible that during conversion and renewed loading, only the ird-file has been loaded, i.e. pnt-file and ird-file have a different date (file identification).

3.6.78 F12C043F, Invalid output

Display: F12C043F

Axis group error, System_Error

Cause: Channel No. of the programmed output is not permissible.

Remedy: Check RCL program.

3.6.79 F12C0440, Invalid input

Display: F12C0440

Axis group error, System_Error

Cause: Channel No. of the programmed input is not permissible.

Remedy: Check RCL program.

3.6.80 F12C0441, Reserved

Display: F12C0441

Axis group error, System_Error

This diagnostics number is reserved.

3.6.81 F12C0442, Transformation of this point is not possible

Display: F12C0442

Axis group error, System_Error

Cause: In the RCL program, a JC-point is to be transferred into a POINT or vice versa. It cannot be transferred..

Remedy: Check RCL program.

3.6.82 F12C0444, File does not exist

Display: F12C0444

Axis group error, System_Error

Cause: File(s) not in memory, error of compilation.

Remedy: Check RCL program.

3.6.83 F12C0445, Negative delaytime

Display: F12C0445

Axis group error, System_Error

Cause: RCL variable not correctly determined.

Remedy: Check RCL program.

3.6.84 F12C0447, Error in IRD program

Display: F12C0447

Axis group error, System_Error

Cause: Incorrect IRDATA code by error in compiler, safety monitoring.

Remedy: Inform after-sales service.

3.6.85 F12C0448, IRD stack overflow

Display: F12C0448

Axis group error, System_Error

Cause: e.g. recursive subroutine calls .

Remedy: Check subroutine packing in RCL program.

3.6.86 F12C0449, IRD stack underflow

Display: F12C0449

Axis group error, System_Error

Cause: System error, safety monitoring.

Remedy: Inform after-sales service.

3.6.87 F12C044A, Invalid number of axes

Display: F12C044A

Axis group error, System_Error

Cause: An invalid axes number was specified in the RCL program.

Remedy: Check the RCL program. Additionally, the content of the parameter "K-0-0008, Axes configuration list" is to be checked.

3.6.88 F12C044B, Array index out of range

Display: F12C044B

Axis group error, System_Error

Cause: Index computation incorrect or indices not preset.

Remedy: Check RCL program.

3.6.89 F12C044C, Program name too long

Display: F12C044C

Axis group error, System_Error

Cause: File names or program names used in the RCL program are too long or contain inadmissible characters.

Remedy: Check RCL program.

MLC_TABLE Diagnostics

3.6.90 F12C044D, IRD option not activ

Display: F12C044D

Axis group error, System_Error

Cause: A not allowed RCL function has been used.**Remedy:** Check RCL program. Determine permitted options.**3.6.91 F12C044E, Missing PKT file**

Display: F12C044E

Axis group error, System_Error

Cause: Point file not loaded or deleted.**Remedy:** List current memory contents.**3.6.92 F12C044F, Point is not defined**

Display: F12C044F

Axis group error, System_Error

Cause: A not defined point is addressed.**Remedy:** Check point file, define / teach point.**3.6.93 F12C0451, No points in PKT file**

Display: F12C0451

Axis group error, System_Error

Cause: PKT file is empty.**Remedy:** Checkup PKT file.**3.6.94 F12C0453, Braekpoint not allowed because of belt synchr.**

Display: F12C0453

Axis group error, System_Error

Cause: A breakpoint in the RCL plus testsystem was reached during a belt synchronization was active.**Remedy:** Set no interruptions in a SYNCHRON section or use the interface signal BELT_SIM_RCI (Belt simulation).**3.6.95 F12C0454, Reserved**

Display: F12C0454

Axis group error, System_Error

This diagnostics number is reserved.

3.6.96 F12C0455, Beltsynchronisation can not be activated

Display: F12C0455

Axis group error, System_Error

Cause: At the preparation time of the SYNCHRON command the belt counter was not reset by the corresponding interface signal BELTxxRES_RCI or the belt-counter is outside the range defined in machine parameter P505.**Remedy:** Reset belt counter. Increase positive flank or range or switch off the monitoring with min=0, max=0.**3.6.97 F12C0457, Invalid float value**

Display: F12C0457

Axis group error, System_Error

Cause: Number is not in permissible range, $1.175 \cdot 10^{-38}$ to $3.403 \cdot 10^{-38}$.**Remedy:** Check RCL program.**3.6.98 F12C0458, File sequentialisation not possible**

Display: F12C0458

Axis group error, System_Error

Cause: Not enough place in memory.

Remedy: Delete files which are possibly not required in memory or remove gaps by re-set.

3.6.99 F12C045A, Wrong version of the RCL compiler

Display: F12C045A

Axis group error, System_Error

Cause: Current compilers in control and PG are different .

Remedy: Compile again the available programs.

3.6.100 F12C045C, Starting point too near the intermediate point

Display: F12C045C

Axis group error, System_Error

Cause: The programmed start point is too close to intermediate point in circular interpolation.

Remedy: Program correction, check circle points.

3.6.101 F12C045D, Starting point too near the endpoint

Display: F12C045D

Axis group error, System_Error

Cause: The programmed start point is too close to end point in circular interpolation.

Remedy: Check circle points in program.

3.6.102 F12C045F, Only positive velocity allowed

Display: F12C045F

Axis group error, System_Error

Cause: Negative speed of circular interpolation.

Remedy: Check RCL program.

3.6.103 F12C0460, No belt option

Display: F12C0460

Axis group error, System_Error

Cause: The incremental input is not enabled, option.

Solution: Monetary value option,
can be enabled by customer service.

3.6.104 F12C0462, Intermediate poin too near the endpoint

Display: F12C0462

Axis group error, System_Error

Cause: The intermediate point is too close at end point in circular interpolation.

Remedy: Check circle points in program.

3.6.105 F12C0463, Start, intermediate and end point on a straight line

Display: F12C0463

Axis group error, System_Error

Cause: Start and intermediate point must not form a straight line with the end point.

Remedy: Check circle points in program.

3.6.106 F12C0464, Start, intermediate and end point too close

Display: F12C0464

Axis group error, System_Error

Cause: Points are too close in intermediate interpolation.

Remedy: Check circle points in program.

3.6.107 F12C0466, Invalid kinematics number

Display: F12C0466

Axis group error, System_Error

MLC_TABLE Diagnostics

Cause: Invalid kinematics number was specified in the RCL program.

Remedy: Check the RCL program.

3.6.108 F12C0467, GLOBAL-File does not exist

Display: F12C0467

Axis group error, System_Error

Cause: Global variables are used in the program. The respective QLL file is not present.

Solution: Reload GLOBAL file.

3.6.109 F12C0468, GLOBAL COMMON ID

Display: F12C0468

Axis group error, System_Error

Cause: The GLOBAL file was compiled at a later time to the file to be imported.

Solution: First compile the GLOBAL file and then all of the files to be imported.

3.6.110 F12C0469, Two GLOBAL-Files

Display: F12C0469

Axis group error, System_Error

Cause: Global variables from two GLOBAL files are used.

Solution: Export all global data in a file.

3.6.111 F12C046A, BNR file does not exist

Display: F12C046A

Axis group error, System_Error

The binary file on which the read or write command was executed does not exist (no longer exists).

3.6.112 F12C046C, Option GLOBAL-File is not active

Display: F12C046C

Axis group error, System_Error

Cause: The 'Global data' expansion stage is not enabled, option.

Solution: Monetary value option,
can be enabled by customer service.

3.6.113 F12C046D, MOVE FILE: Wrong version

Display: F12C046D

Axis group error, System_Error

Cause: Parameter 5 in the header is incorrect.

Solution: Inform customer service, see notes at the beginning of the chapter.

3.6.114 F12C046E, MOVE FILE: Wrong number of axes

Display: F12C046E

Axis group error, System_Error

Cause: Parameter 4 in the header is incorrect.

Solution: Number of axes in the MPP is not consistent with the number of axes in the file.

3.6.115 F12C046F, MOVE FILE: Reading pointer

Display: F12C046F

Axis group error, System_Error

Cause: The read marker of the bnr-file has not been correctly positioned in the read-begin command.

Remedy: Check READ_BEGIN.

3.6.116 F12C0470, MOVE FILE: Time base

Display: F12C0470 Axis group error, System_Error

Cause: Parameter 3 in file header is incorrect.

Remedy: The interpolation time (clock time) set in P5 does not agree with the time base of the bnr-file.

3.6.117 F12C0471, MOVE FILE: IP-LR base

Display: F12C0471 Axis group error, System_Error

Cause: Incorrect file header of parameter 2.

Remedy: The special function parameter BASE of SPC_FCT 45 (MOVE_FILE) does not correspond with the IP-LR-base of the bnr-file.

3.6.118 F12C0472, MOVE FILE: Format fault

Display: F12C0472 Axis group error, System_Error

Cause: The read marker of the bnr-file shows to a value which represents no floating point number in the IEEE format.

Remedy: Check READ_BEGIN-command, check bnr-file.

3.6.119 F12C0473, MOVE FILE: MODULO_FLAG not occupied

Display: F12C0473 Axis group error, System_Error

Cause: The special function parameter @MODULO_FLAG has not been occupied in the RCL program.

Remedy: Before calling SPC_FCT 45 the parameter @MODULO_FLAG must be pre-set in the RCL program.

3.6.120 F12C0474, Reserved

Display: F12C0474 Axis group error, System_Error

This diagnostics number is reserved.

3.6.121 F12C0475, No positioning axes defined

Display: F12C0475 Axis group error, System_Error

Cause: No positioning axis was defined.

Solution: Check the axis/kinematic assignment in the kinematic wizard. This applies in particular if it is a user-defined kinematics.

Additionally, the content of the parameter "K-0-0008, Axis configuration list" is to be checked.

In connection with the usage of the workpiece coordinate system, ensure that the content of the parameter "K-0-0043, Assignment list of workpiece coordinates" is correct.

3.6.122 F12C0476, Reserved

Display: F12C0476 Axis group error, System_Error

This diagnostics number is reserved.

3.6.123 F12C0477, Invalid axes configuration

Display: F12C0477 Axis group error, System_Error

Cause: The axis configuration contains invalid values.

Remedy: Check "K-0-0008 Axes configuration list".

MLC_TABLE Diagnostics

3.6.124 F12C0478, Raised/extended arm

Display: F12C0478

Axis group error, System_Error

Cause: Scara-transformation: the arm is completely retracted, resp. extended.**Remedy:** Travel into valid range in manual mode.**3.6.125 F12C0479, WC zero position is singular**

Display: F12C0479

Axis group error, System_Error

Cause: Scara-transformation: Singular world point programmed.**Remedy:** Change RCL program.**3.6.126 F12C047A, Too close to stand**

Display: F12C047A

Axis group error, System_Error

Cause: Scara-transformation: Collision danger.**Remedy:** Travel into valid range in manual mode.**3.6.127 F12C047C, Invalid TOOL value**

Display: F12C047C

Axis group error, System_Error

Cause: Only for RTYP = 2, when the master/slave coupling factor is modified via the BAPS command 'Tool'.**Remedy:** The slave number coded via 'Tool' is wrong. Check RCL program.**3.6.128 F12C047D, Wrong belt direction programed**

Display: F12C047D

Axis group error, System_Error

Cause: The belt value programmed in SPC_FCT 21 (belt_type) does not correspond to the predefined direction.**Remedy:** Check RCL program.**3.6.129 F12C047E, Invalid kind of belt/tolerance of belt**

Display: F12C047E

Axis group error, System_Error

Cause: When calling SPC_FCT 21 an inadmissible belt type or an inadmissible belt tolerance has been programmed.**Remedy:** Check RCL program.**3.6.130 F12C047F, Belt distance is zero**

Display: F12C047F

Axis group error, System_Error

Cause: In belt synchronization without belt parallel travel possibility (belt type 2) the belt coordinate of two successive travel points is identical.**Remedy:** Program a belt distance unequal to zero.**3.6.131 F12C0480, Invalid point**

Display: F12C0480

Axis group error, System_Error

Cause: With SPC_FCT 31, reading of set values from the ring memory, a buffer is accessed which has no valid point yet.**Remedy:** In SPC_FCT 30, switch off storing of set values, the parameter NUM_POINTS supplies the number of points stored up to now.

Select a corresponding index for SPC_FCT 31.

3.6.132 F12C0481, Invalid measuring system

Display: F12C0481 Axis group error, System_Error

Cause: In SPC_FCT 29 (=switch on storing of set values) a wrong measuring system number has been programmed.

Remedy: The maximum permissible measuring system number results from MS_NO_max = number of all axes + number of all belts.

3.6.133 F12C0482, Invalid belt number

Display: F12C0482 Axis group error, System_Error

Cause: A belt with the number defined in SPC_FCT 15, 21, 28, 51, 52, 54 or 55 is not available.

Remedy: Check RCL program.

3.6.134 F12C0483, In WC not allowed

Display: F12C0483 Axis group error, System_Error

Cause: When calling SPC_FCT 27 (JC_main range) the corresponding kinematic is not in JC.

Remedy: Check RCL program.

3.6.135 F12C0484, Invalid kinematics number

Display: F12C0484 Axis group error, System_Error

Cause: Incorrect kinematic parameter in SPC_FCT 3, 27, 29.

Remedy: Check parameters of SPC_FCT in RCL program.

3.6.136 F12C0485, PPO/IOL: Invalid function number

Display: F12C0485 Axis group error, System_Error

Cause: For SPC_FCT 1 or 2 (PPO-IO-logic) an inadmissible function number has been programmed.

Permitted are values from 1 to 16.

Remedy: Check transfer parameters of SPC_FCT 1 or 2 in RCL program, see RCL3 programming instructions.

3.6.137 F12C0486, SPC_FCT 1, Invalid kinematics number

Display: F12C0486 Axis group error, System_Error

Cause: When programming the SPC_FCT 1, Accurate position switching of the digital outputs on the path, an invalid kinematics number was transferred.

Remedy: Check transfer parameters of the SPC_FCT 1 in the RCL program (refer to the RCL Programming Instruction).

3.6.138 F12C0487, PPO/IOL: Invalid coordinate

Display: F12C0487 Axis group error, System_Error

Cause: For SPC_FCT 1 or 2 (PPO-IO-logic) an inadmissible kinematics number has been programmed.

Remedy: Check transfer parameters of SPC_FCT 1 or 2 in RCL program, see RCL programming instructions.

3.6.139 F12C0488, PPO: Invalid parameter value

Display: F12C0488 Axis group error, System_Error

MLC_TABLE Diagnostics

Cause: Incorrect parameter value in SPC_FCT 2, permissible values from 0 to 255.

Remedy: Check RCL program.

3.6.140 F12C048F, PPO/IOL: Invalid function number

Display: F12C048F

Axis group error, System_Error

Cause: Inadmissible function number programmed for SPC_FCT 1 or 2.

Remedy: Check RCL program.

3.6.141 F12C0490, Function number

Display: F12C0490

Axis group error, System_Error

Cause: Empty error message.

Remedy: Empty error message.

3.6.142 F12C0492, Invalid SPS process number

Display: F12C0492

Axis group error, System_Error

Cause: In the RCL program, the standard subroutine PLC_PROCESS (proc_No), resp. PLC_TIME (task_No) has been called with an inadmissible proc_No (task_No).

Remedy: Permissible proc_No: 1 to 128, PLC program module.

Permissible task_No 1 to 8, PLC time module.

3.6.143 F12C0493, Invalid time value

Display: F12C0493

Axis group error, System_Error

Cause: Incorrect time value programmed in function START_PLC_TIME.

Valid range: 0.01 to 655.35.

Remedy: Check RCL program.

3.6.144 F12C0494, Min. value greater than max. value

Display: F12C0494

Axis group error, System_Error

Cause: Value of the transfer parameter 2 or 3 of the SPC_FCT 52.
BELT_PTP_FAC is wrong.

Remedy: Check transfer parameters 2 and 3 of the SPC_FCT 52

BELT_PTP_FAC in the RCL program.

3.6.145 F12C0495, Error by exception process start

Display: F12C0495

Axis group error, System_Error

Cause: Error by exception process start.

The exception process defined in Special function 47 (EXC_DE-FINE) could not be started.

Remedy: Exception handling error:

Error addition "EXC-No:" specifies the number (1..32) of the exception, which could not be processed.

Possible reasons for example are:

- IRD-file of the exception process was not loaded into the rho4
- Typing error in filename (parameter EXC_PR_NAME in Spc_Fct EXC_DEFINE)
- etc.

3.6.146 F12C0497, Workspace number

Display: F12C0497

Axis group error, System_Error

Cause: Workspace number.

Remedy: Empty error message.

3.6.147 F12C0498, Transformation in PLC has not been registered

Display: F12C0498

Axis group error, System_Error

Cause: The transformation functions in the PLC are not known to the firmware.

Remedy: Execute the function ML_RegisterTrafoCallback to report the functions (Also see the description "Transformation in the PLC").

3.6.148 F12C0499, User defined transformation error in PLC

Display: F12C0499

Axis group error, System_Error

Cause: One of the transformation functions in the PLC return a negative value.

Remedy: Check transformations in the PLC program (also refer to the description "Transformation in PLC").

3.6.149 F12C049A, Internal error due to transformation in PLC

Display: F12C049A

Axis group error, System_Error

Cause: An internal error has occurred.

Remedy: Inform customer service.

3.6.150 F12C0600, Invalid operation at PLC function call

Display: F12C0600

Axis group error, System_Error

Cause: In a transformation function in the PLC, an invalid operation was executed.

Remedy: Check transformations in the PLC program (also refer to the description "Transformation in PLC").

3.6.151 F12C0601, Denormalized operand at PLC function call

Display: F12C0601

Axis group error, System_Error

Cause: In a transformation function in the PLC, it was calculated with a denormalized number.

Remedy: Check transformations in the PLC program (also refer to the description "Transformation in PLC").

3.6.152 F12C0602, Zero division at PLC function call

Display: F12C0602

Axis group error, System_Error

Cause: In a transformation function in the PLC, it was divided by zero.

Remedy: Check transformations in the PLC program (also refer to the description "Transformation in PLC").

3.6.153 F12C0603, Overflow at PLC function call

Display: F12C0603

Axis group error, System_Error

Cause: In a transformation function in the PLC, an overflow was caused.

Remedy: Check transformations in the PLC program (also refer to the description "Transformation in PLC").

MLC_TABLE Diagnostics

3.6.154 F12C0604, Underflow at PLC function call

Display: F12C0604

Axis group error, System_Error

Cause: In a transformation function in the PLC, an underflow was caused.**Solution:** Check transformations in the PLC program (also refer to the description "Transformation in the PLC").**3.6.155 F12C0605, Precision error at PLC function call**

Display: F12C0605

Axis group error, System_Error

Cause: An accuracy occurred in a transformation function in the PLC.**Solution:** Check transformations in the PLC program (also refer to the description "Transformation in PLC").**3.6.156 F12C0606, NAN at PLC function call**

Display: F12C0606

Axis group error, System_Error

Cause: NAN was returned as result of the forward or inverse position kinematics of a transformation in the PLC**Solution:** Check the transformation.**3.6.157 F12C0822, Axis not referenced while jogging**

Display: F12C0822

Axis group error, INPUT_RANGE_ERROR

Cause: It is tried to traverse a kinematics via jogging. One axis of the kinematics is not referenced.**Solution:** Reference all axes of the kinematics.**3.6.158 F12C0876, Transformation mathematical undefined**

Display: F12C0876

Axis group error, System_Error

Cause: The transformation cannot be solved mathematically.**Solution:** Check the parameterization of the kinematics.**3.6.159 F12C0877, Hand axis traversing range exceeded**

Display: F12C0877

Axis group error, System_Error

Cause: The travel range of the manual axes specified in the belt coupling factors is exceeded.**Solution:** Check the parameterization of the kinematics.**3.6.160 F12C0878, Orientation axis traversing range exceeded**

Display: F12C0878

Axis group error, System_Error

Cause: The travel range of the orientation axes is exceeded.**Solution:** Check the parameterization of the kinematics.**3.6.161 F12C0879, Mathematical workspace exceeded**

Display: F12C0879

Axis group error, System_Error

Cause: The mathematical workspace is exceeded.**Solution:** Check the parameterization of the kinematics.**3.6.162 F12C087A, Singularity of kinematics**

Display: F12C087A

Axis group error, System_Error

Cause: Singularity of the kinematics

Solution: Check the parameterization of the kinematics.

3.6.163 F12C087B, Mathematical workspace exceeded

Display: F12C087B

Axis group error, System_Error

Cause: The mathematical workspace is exceeded.

Solution: Check the parameterization of the kinematics.

3.6.164 F12C087C, Iteration divergent

Display: F12C087C

Axis group error, System_Error

Cause: The iteration is divergent.

Solution: Check the parameterization of the kinematics.

3.6.165 F12C087D, COS singular

Display: F12C087D

Axis group error, System_Error

Cause: The mathematical workspace is exceeded.

Solution: Check the parameterization of the kinematics.

3.6.166 F12C0881, Illegal 'Drives ON'

Display: F12C0881

Axis group error, Other_Error

Cause: "Drive On" is not allowed.

3.6.167 F12C0883, Kinematics axis lost power

Display: F12C0883

Axis group error, Other_Error

Cause: Whilst the kinematic system is operating, at least one of the kinematic axes is now without power.

Effect: The kinematic system switches to "Errorstop" status.

Remedy:

1. Eliminate the causes of the errors.
2. Reset the error status.
3. Add the failed kinematic axes.

3.6.168 F12C0885, Workspace out of range

Display: F12C0885

Axis group error, Other_Error

Cause: Workspace out of range.

3.6.169 F12C08C7, Switch to manual operation not permitted

Display: F12C08C7

Axis group error, Other_Error

Cause: Switch to manual operation not permitted.

3.6.170 F12C0EB4, Memory dump error

Display: F12C0EB4

Axis group error, Other_Error

Cause: Memory dump error.

3.6.171 F12C0EB5, Memory dump error

Display: F12C0EB5

Axis group error, Other_Error

Cause: Memory dump error.

MLC_TABLE Diagnostics

3.6.172 F12C0EB6, Memory dump error

Display: F12C0EB6

Axis group error, Other_Error

Cause: Memory dump error.**3.6.173 F12C0EB7, Memory dump error**

Display: F12C0EB7

Axis group error, Other_Error

Cause: Memory dump error.**3.6.174 F12C0EB8, Memory dump error**

Display: F12C0EB8

Axis group error, Other_Error

Cause: Memory dump error.**3.6.175 F12C0EB9, Memory dump error**

Display: F12C0EB9

Axis group error, Other_Error

Cause: Memory dump error.**3.6.176 F1350C12, Negative time calculated in movement preparation**

Display: F1350C12

Axis group error, Other_Error

Cause: Negative time calculated in movement preparation.**3.7 F2 Errors, Axis Errors****3.7.1 F2 Errors, Error Reaction**

Logbook entry is generated; message is shown on the display.

Axis (or drive) is decelerated the best possible; all other axes are not affected.

3.7.2 F200**, Drive Error with Error Number F******

An error occurred in the drive.

Cause: At least one drive reports an error with the error number F****.**Solution:** The respective online help is available for self-manufactured drives. For third-party drives, use the drive documentation.See also: [IndraDrive/HydraulicDrive Drive Errors , page 48](#)**3.7.3 F20B0005, Drive error**

Display: F20B0005

Axis error, System_Error

If other manufacturers' devices or IndraDrive devices are used as drives in the Pack Profile, then the drive diagnostics cannot be managed by this diagnostic system.

An error is detected in "C-0-0650, Diagnostics, status word, bit 2" and "C-0-0023, System status, bit 26", the error bit is always set.



If IndraDrives are operated as PackProfiles, they do not display an error message on the control.

Cause: At least one drive reports an error of error class 1.**Solution:** Contact the drive manufacturer or take the appropriate measures from the drive documentation.

3.7.4 F20BE001, M_Busy-Bit not set

Display: F20BE001 Axis error, Communication_Error
Error in the sercos service channel.

Cause:

- An error occurred in the internal processing of the service channel.

Remedy: Start transfer via the service channel again. If the error cannot be corrected, please contact the customer service.

3.7.5 F20BE002, SVC: Protocol error

Display: F20BE002 Axis error, Communication_Error
Error in the sercos service channel.

Cause:

- The sercos service channels Handshake Bits AHS and MHS are different and the bit BUSY_AT is set.

Remedy: Start transfer via the service channel again. Check the connected sercos devices. If the error cannot be corrected, please contact the customer service.

3.7.6 F20BE003, SVC: Handshake Timeout

Display: F20BE003 Axis error, Communication_Error
Error in the sercos service channel.

Cause:

- The triggered sercos device did not acknowledge its AHS bit after 10 communication cycles in the status word.

Remedy: Start transfer via the service channel again. Check the connected sercos devices. If the error cannot be corrected, please contact the customer service.

3.7.7 F20BE004, SVC: Busy Timeout

Display: F20BE004 Axis error, Communication_Error
Error in the sercos service channel.

Cause:

- The triggered device accepted the transmission request. The handshake bits AHS and MHS are identical and the BUSY_AT bit is still set after the timeout had elapsed.

Remedy: C-0-0504, sercos master, SVC busy timeout: Increase SVC busy timeout. Check the connected sercos devices. If the error cannot be corrected, please contact the customer service.

3.7.8 F20BE005, SVC: Internal error

Display: F20BE005 Axis error, Communication_Error
Error in the SERCOS service channel.

Cause:

- An error occurred in the internal processing of the service channel.

Remedy: Start transfer via the service channel again. If the error cannot be corrected, please contact the customer service.

3.7.9 F20BE006, SVC in use

Display: F20BE006 Axis error, Communication_Error
Error in the sercos service channel.

MLC_TABLE Diagnostics

Cause:

- The service channel is still internally assigned. An internal assignment of the SVC is made when setting the command S-0-0127 for example.

Remedy: Start transfer via the service channel again. If the error cannot be corrected, please contact the customer service.

3.7.10 F20BE007, SVC: Request canceled

Display: F20BE007

Axis error, Communication_Error

Error in the sercos service channel.

Cause:

- The current transfer was aborted by a transfer with a higher priority

Remedy: Start transfer via the service channel again. If the error cannot be corrected, please contact the customer service.

3.7.11 F20BE008, SVC internal request pending

Display: F20BE008

Axis error, Communication_Error

Error in the sercos service channel.

Cause:

- The service channel is still internally assigned. An internal assignment of the SVC is made when setting the command S-0-0127 for example.

Remedy: Start transfer via the service channel again. If the error cannot be corrected, please contact the customer service.

3.7.12 F20BE009, SVC: Error message without SVC errorcode

Display: F20BE009

Axis error, Communication_Error

Error in the SERCOS service channel.

Cause:

- An error occurred in the internal processing of the service channel.

Remedy: Start transfer via the service channel again. If the error cannot be corrected, please contact the customer service.

3.7.13 F20D1015, Error while closing cyclic channel

Display: F20D1015

Axis error, Access_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.7.14 F20D1025, Error while closing cyclic channel

Display: F20D1025

Axis error, Communication_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.7.15 F20D1029, Error opening cyclic channel

Display: F20D1029

Axis error, Communication_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.7.16 F20D102B, Error opening cyclic channel (READ-ACCESS)

Display: F20D102B Axis error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.7.17 F20D102C, Error reading access (DirectReadReal)

Display: F20D102C Axis error, System_Error

An error occurred in the firmware during reading access to user defined actual data. The value 0.0 returns.

Cause: An error occurred in the firmware.

Remedy: Please contact our service department.

3.7.18 F20D102D, Error reading access (DirectReadWord)

Display: F20D102D Axis error, System_Error

An error occurred in the firmware during reading access to user defined actual data. The value 0 returns.

Cause: An error occurred in the firmware.

Remedy: Please contact our service department.

3.7.19 F20D102E, Error reading access (DirectReadDword)

Display: F20D102E Axis error, System_Error

An error occurred in the firmware during reading access to user defined actual data. The value 0 returns.

Cause: An error occurred in the firmware.

Remedy: Please contact our service department.

3.7.20 F20D1034, Error write access (DirectWriteWord)

Display: F20D1034 Axis error, System_Error

An error occurred in the firmware during writing access to user defined commanded data. The value 0 returns to the user interface.

Cause: An error occurred in the firmware.

Remedy: Please contact our service department.

3.7.21 F20D1036, Axis has not been found (ML_AXISDATA)

Display: F20D1036 Axis error, System_Error

Axes data are to be read/write whose appropriate axis has not been found. Value 0 is returned to the programming interface (status display).

Cause: There is an access to axis data in the PLC-User program whose axis has not been configured.

Remedy: Perform only access to configured axes.

3.7.22 F20D1037, Invalid write/read access to ML_AXISDATA

Display: F20D1037 Axis error, System_Error

Axes data are to be read/write whose appropriate parameters has not been found. Value 0 is returned to the programming interface (status display).

MLC_TABLE Diagnostics

Cause: There is an access to axis data in the PLC-User program whose parameters has not been found.

Remedy: Actualize the PLC-Program by the IndraWorks-Project.

3.7.23 F2110002, Axis is not homed

Display: F2110002

Axis error, Access_Error

A homed axis is needed to execute the required function block.

Cause: The function block MB_Home was not executed.

The current status of the axis can be checked in parameter "A-0-0021, Axis status, bit10".

Solution: Execute the function block MB_Home again.

3.7.24 F2110003, Drive of axis does not exist

Display: F2110003

Axis error, Resource_Error

The control's axes are defined in parameter "C-0-0484, Axes configuration list". The parameterized drive must be preset in the sercos ring for a real axis to be created.

Cause: A real axis configured in parameters C-0-0484 could not find the assigned drive in the sercos ring.

Solution:

- Set the sercos address on the drive correctly, switch the control off and on again.
- Adapt the configuration of the real axes in parameter C-0-0484 to the existing drives.

3.7.25 F2110004, Synchronization A to S/P-Parameter failed (A-0-0014)

Display: F2110004

Axis error, System_Error

The A parameters are synchronized with the S/P parameters of the drive during phase start-up.

At least one parameter in the drive could not be written here.

Cause:	Solution:
The parameter is not present in the drive (drive firmware not supported by the control).	Only use drive versions supported by the control firmware.
The parameter is not write protected in the drive (drive firmware not supported by the control).	Only use drive versions supported by the control firmware.
The value of the A parameter is outside of the valid value range.	Write the parameter with a valid value.

3.7.26 F2110005, Loss of encoder axis reference

Display: F2110005

Axis error, System_Error

If an encoder axis is parameterized in the control, the current actual position is stored in the control when switching off the control and when switching from phase 4 to phase 2.

When the control is switched on again or switched from phase 2 to phase 2, the current position of the drive is compared with the stored position in the control and the actual position is recalculated. The new actual position could not be calculated with a loss of reference.

MLC_TABLE Diagnostics

Cause:	Solution:
The drive's encoder has lost its reference.	Re-reference drive encoder and encoder axis.
The encoder axis gear was changed.	Re-reference encoder axis.
A single turn encoder was used with a gear ratio that cannot be clearly shown.	No solution available.
An unknown drive firmware was used.	Only use approved drive firmware.

3.7.27 F2110006, Invalid axis configuration

Display: F2110006

Axis error, System_Error

Operating modes are set in the drive during phase start-up that are dependent on the configuration set in parameter "A-0-0007, Axis configuration".

These could not be written as the configuration in A-0-0007 is incorrect.

Cause: Faulty parameterization in "A-0-0007, Axis configuration".

Solution: Write the parameter with a valid value.

3.7.28 F2110007, Power lost on axis

Display: F2110007

Axis error, Device_Error

A loss of performance has occurred at the drive and no error was reported from the drive.

Please search in the drive logbook for reasons for the loss of performance.

3.7.29 F2110029, Positive travel limit exceeded

Display: F2110029

Axis error, Device_Error

The drive provides a function to monitor a permitted travel range by means of parameterizable software end switches.



Monitoring of the travel range must be enabled and parameterized via parameters "A-0-0030, Position limit value, positive", "A-0-0031, Position limit value, negative" and "A-0-0029, Position polarities".

The drive's reaction (warning or error) to an infringement of a travel range must be parameterized in "A-0-0028, Travel range limit".

Cause:	Solution:
A command value was specified for the axis, which leads to an axis position outside of the positive travel range/position/limit value, "A-0-0030, Position limit value, positive".	1. Clear error 2. Specify a command value that leads again into the permitted travel range. 3. Contact the machine manufacturer to clarify the cause of the faulty command value.
Incorrect parameterization of the positive travel range / position limit value	Check and possibly correct parameterization of "A-0-0030, Position limit value, positive"



Parameter "A-0-2795, Position window" is used to execute a hysteresis function when evaluating the position limit values.

MLC_TABLE Diagnostics

3.7.30 F2110030, Negative travel limit exceeded

Display: F2110030

Axis error, Device_Error

The drive provides a function to monitor a permitted travel range by means of parameterizable software end switches.



Monitoring of the travel range must be enabled and parameterized via parameters "A-0-0030, Position limit value, positive", "A-0-0031, Position limit value, negative" and "A-0-0029, Position polarities".

The drive's reaction (warning or error) to an infringement of a travel range must be parameterized in "A-0-0028, Travel range limit".

Cause:	Solution:
A command value was specified for the axis, which leads to an axis position outside of the negative travel range/position/limit value "A-0-0031, Position limit value, negative".	1. Clear error 2. Specify a command value that leads again into the permitted travel range. 3. Contact the machine manufacturer to clarify the cause of the faulty command value.
Incorrect parameterization of the negative travel range / position limit value	Check and possibly correct parameterization of "A-0-0031, Position limit value, negative".



Parameter "A-0-2795, Position window" is used to execute a hysteresis function when evaluating the position limit values.

3.7.31 F2110100, Control axis in error

Display: F2110100

Axis error, Device_Error

An error has occurred in the controller that was set from the PLC. The axis was subsequently stopped.

A precise error code was not issued in "A-0-0627 Controller axis, diagnostic number".

Cause: During the execution of the PLC program, the control axis issued an error.

Solution: Correct the error in the control and acknowledge the error in the axis.

3.7.32 F2112053, Target position out of travel range error

Display: F2112053

Axis error, System_Error

A check is made with discrete motion, before a movement is executed, to ascertain whether the specified target position is in the permitted travel range of the axis.

Cause:	Solution:
Incorrectly parameterized position limit values: "A-0-0030, Position limit value, positive" and "A-0-0031, Position limit value, negative".	Check the parameterization of the position limit values and adjust according to the required travel range. "A-0-0030, Position limit value, positive" must be greater than "A-0-0031, Position limit value, negative".
Position limit value monitoring is enabled although it is not needed.	Disable position limit value monitoring if it is not needed (for instance in Modulo mode).

MLC_TABLE Diagnostics

Cause:	Solution:
With relative motion, the travel distance was set too large or several travel distances that have to be added together lead to the effective target position (cf. "A-0-2201, Commanded target position") lying outside of the position limits.	Check the specified travel distance (cf. "A-0-2201, Commanded target position") and adjust in the control program if necessary.
With absolute interpolation, the target position was specified incorrectly.	Check the specified target position and adjust in the control program if necessary (enter target position only within the position limit values).

3.7.33 F2116029, Positive travel limit exceeded

Display: F2116029

Axis error, Input_Range_Error

The axis provides a function to monitor a permitted travel range by means of parameterizable software end switches.

Cause:	Solution:
	Clear error and connect power.
A command value was specified for the axis, which leads to an axis position outside of "A-0-0030, Position limit value, positive".	Specify a command value that leads again into the permitted travel range.
Incorrect parameterization of "A-0-0030, Position limit value, positive".	Check and possibly correct incorrect parameterization of "A-0-0030, Position limit value, positive".

3.7.34 F2116030, Negative travel limit exceeded

Display: F2116030

Axis error, Input_Range_Error

The axis provides a function to monitor a permitted travel range by means of parameterizable software end switches.

Cause:	Solution:
	Clear error and connect power.
A command value was specified for the axis, which leads to an axis position outside of "A-0-0031, Position limit value, negative".	Specify a command value that leads again into the permitted travel range.
Incorrect parameterization of "A-0-0031, Position limit value, negative".	Check and possibly correct incorrect parameterization of "A-0-0031, Position limit value, negative".

3.7.35 F2119001, RTOS error, illegal master axis

Display: F2119001

Axis error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.7.36 F2220231, Invalid master axis data

Display: F0220231

Axis error, Other_Error

When synchronizing an axis to a master axis and during the synchronization operation, a check is run to see if the master axis provides valid data. The status of the master axis data is made available in A-0-0021, bit 30.

If the master axis data is invalid, the error "F2220231, Invalid master axis data" is generated.

MLC_TABLE Diagnostics

Invalid master axis data can occur both locally at an individual control and in the control link.

Cause:	Remedy:
Local control - The phase of the drive ring is less than P4 - The axis is disabled/parked and the command value decoupling is also disabled	Make sure that - the control is in operation mode - the configuration of the axes and the command value decoupling is feasible
Control link - The phase of the drive ring in the producing control is less than P4 - The phase of the link ring is less than P4 - The axis is disabled/parked - The command value decoupling is enabled	Make sure that - the producing control is in operation mode - the control link started up successfully - the axis is enabled - the command value decoupling is disabled

3.7.37 F2220356, Invalid filter time const., additive master position

Display: F2220356

Axis error, Access_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The requested filter time constant in the parameter "A-0-2601, ELS, Filter time constant, additive master axis position" is invalid.

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.7.38 F2220357, Invalid filter time const., angle offset begin of profile

Display: F2220357

Axis error, Access_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The requested filter time constant in parameter "A-0-2621, ELS, filter constant, phase offset of table" is invalid.

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.7.39 F2220358, Invalid filter time const., additive slave position

Display: F2220358

Axis error, Access_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The requested filter time constant in parameter "A-0-2611, ELS, filter time constant, additive position command value" is invalid.

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.7.40 F2220610, Invalid master axis

Display: F2220610

Axis error, Input_Invalid_Error

The selected axis cannot be used as master axis for the command.

MLC_TABLE Diagnostics

Cause: The selected axis does not provide any ELS position. It is possible that the axis was configured for an operation without encoder.

Axes not returning any actual position values to the control system could exclusively be used as slave axes.

Solution: Check whether the selected master axis is provided with a position encoder and is configured correspondingly.

3.7.41 F2229200, General drive error

Display: F2229200 Axis error, Other_Error

In the PLC-Program a movement command was generated, which is aborted during execution by an error in the addressed axis. The addressed real axis is connected to a drive. This drive reports an error.

Cause: In the PLC-Program a movement command for a real axis was generated. The drive of the real axis has detected an error during execution.

Remedy: Correct the error in the drive and quit the error in the axis. Subsequently activate the desired movement command again.

3.7.42 F2229203, Invalid command type

Display: F2229203 Axis error, State_Machine_Error

In the PLC-Program an unknown command is generated.

Cause: In the PLC-Program an unknown command was generated.

Remedy: Actualize the PLC-Program.

3.7.43 F2229204, Command not supported by axis

Display: F2229204 Axis error, State_Machine_Error

A command that cannot be supported by the addressed axis is generated in the PLC program.

When configuring the axis, an axis type is selected that does not support the desired command (see status diagram of the axis type).

Cause: An illegal command was generated for the addressed axis in the PLC program.

Solution: Update the PLC program or change the configuration of the axis in the control (see parameter "C-0-0484, Axes configuration list").

3.7.44 F2229205, Command rejected, no power

Display: F2229205 Axis error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

No power or torque is currently switched on for the axis.

Cause: A motion command is generated for an axis in the PLC program without power being enabled.

Solution: Switch on the power or torque of the axis using function block MC_Power.

3.7.45 F2229206, Command rejected while 'Stopping'

Display: F2229206 Axis error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis was switched to "Stopping" state using a function block MC_Stop. The function block MC_Stop is still active and has priority over other function blocks or motion commands (see Axis type status diagram).

MLC_TABLE Diagnostics

Cause: In the PLC program, an unauthorized motion command was generated for an axis in the "Stopping" state.

Solution: Switch the axis to "Standstill" state using the MC_Stop function block. Then enable the desired motion command.

3.7.46 F2229207, Command rejected while 'Homing'

Display: F2229207

Axis error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis was switched to "Homing" state using a function block MB_Home. The function block MB_Home is still active and has priority over other function blocks or motion commands (see Axis type status diagram).

Cause: In the PLC program, a motion command was generated for an axis in the "Homing" state.

Solution: Wait until the function block MB_Home has been processed by the control or use function block MC_Stop to switch the axis to "Standstill" state. Then enable the desired motion command.

3.7.47 F2229208, Invalid command number

Display: F2229208

Axis error, State_Machine_Error

A movement command is generated in the PLC-Program by a function block. When generating the command, the function block obtains a command number from the control kernel. When reading the command status, the function block assign the command number as reference to the command. The assigned command number is invalid, resp. obsolete.

Cause: In the PLC-Program the status of a movement command was prompted by a function block. The assigned command number is invalid, resp. obsolete.

Remedy: Actualize the PLC-Program.

3.7.48 F2229210, Reset still 'ErrorStop'

Display: F2229210

Axis error, State_Machine_Error

The function block MC_Reset is used to generate the command "Error deletion" in the PLC program.

The pending error cannot be deleted.

Cause: The function block MC_Reset is used to generate the command "Error deletion" in the PLC program. The pending error could not be deleted.

Solution: Eliminate the cause of the error. Then acknowledge the error.

3.7.49 F2229211, Command rejected while 'Discrete Motion'

Display: F2229211

Axis error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis is in "Discrete Motion" state. The requested motion command and the enabled function block are not permitted in "Discrete Motion" state (see the Axis type status diagram).

Cause: An unauthorized motion command was generated for an axis in the "Discrete Motion" state in the PLC program.

Solution: Enable the desired motion command after the control has executed the current Motion command and the axis has been switched to "Standstill" state or

switch the axis to "Standstill" state using function block MC_Stop. Then enable the desired motion command.

3.7.50 F2229212, Command rejected while 'Continuous Motion'

Display: F2229212

Axis error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis is in "Continuous Motion" state. The requested motion command and the enabled function block are not permitted in "Continuous Motion" state (see the Axis type status diagram).

Cause: An unauthorized motion command is generated for an axis in the "Continuous Motion" state in the PLC program.

Solution: Using function block MC_Stop, switch the axis to "Standstill" state and then enable the desired motion command.

3.7.51 F2229213, Command rejected while 'Synchronized Motion'

Display: F2229213

Axis error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis is in "Synchronized Motion" state. The requested motion command and the enabled block are not permitted in "Synchronized Motion" state (see the Axis type status diagram).

Cause: An unauthorized motion command was generated for an axis in the "Synchronized Motion" state in the PLC program.

Solution: Using function blocks MC_GearOut, MC_CamOut or MC_Stop, switch the axis to "Continuous Motion" or "Standstill" state. Then enable the desired motion command.

3.7.52 F2229214, Command rejected while 'ErrorStop'

Display: F2229214

Axis error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis has detected an error and switched to "Errorstop" state. The requested motion command and the enabled function block are not permitted in "Errorstop" state (see the Axis type status diagram).

Cause: An unauthorized motion command was generated for an axis in "Errorstop" state in the PLC program.

Solution: Delete the pending axis error or, using function block MC_Reset, switch the axis to "Standstill" state. Then enable the desired motion command.

3.7.53 F2229216, No power available

Display: F2229216

Axis error, State_Machine_Error

A command that cannot be executed by the addressed axis is generated in the PLC program.

The axis torque cannot be switched on by the function block MC_Power. Power is not connected to the drive controller (see Drive documentation).

Cause: Power is not connected to the drive controller.

Solution: Check the drive controller or its power supply (see Drive documentation).

MLC_TABLE Diagnostics

3.7.54 F2229217, Command rejected while 'StandStill' and 'PowerOn'

Display: F2229217

Axis error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis is in "Standstill" / "PowerOn" state. The requested motion command or the enabled function block are not permitted in "Standstill" state (for instances MC_CamOut, MC_GearOut).

Cause: An unauthorized motion command was generated for an axis in the "Standstill" / "PowerOn" state in the PLC program.

Solution: Update the PLC program.

3.7.55 F2229218, Command rejected while 'StandStill'

Display: F2229218

Axis error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis is in "Standstill" state. The requested motion command or the enabled function block are not permitted in "Standstill" state (see the Axis type status diagram).

Cause: An unauthorized motion command was generated for an axis in the "Standstill" state in the PLC program.

Solution: Update the PLC program.

3.7.56 F2229223, Velocity below minimum

Display: F2229223

Axis error, Input_Range_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis. The velocity for the required movement command, resp. the activated function block is less than the permitted minimum value in parameter commanded velocity (see parameter "A-0-2202, Commanded velocity").

Cause: In the PLC-Program a movement command for an axis was generated with invalid parameters.

Remedy: Actualize the PLC-Program.

3.7.57 F2229224, Velocity above maximum

Display: F2229224

Axis error, Input_Range_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis. The velocity for the required movement command, resp. the activated function block is greater than the permitted maximum value in parameter commanded velocity (see parameter "A-0-2202, Commanded velocity").

Cause: In the PLC-Program a movement command for an axis was generated with invalid parameters.

Remedy: Actualize the PLC-Program.

3.7.58 F2229225, Acceleration below minimum

Display: F2229225

Axis error, Input_Range_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis. The acceleration for the required movement command, resp. the activated function block is less than the permitted

MLC_TABLE Diagnostics

minimum value in parameter commanded acceleration (see parameter "A-0-2203, Commanded acceleration").

Cause: In the PLC-Program a movement command for an axis was generated with invalid parameters.

Remedy: Actualize the PLC-Program.

3.7.59 F2229226, Acceleration above maximum

Display: F2229226 Axis error, Input_Range_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis. The acceleration for the required movement command, resp. the activated function block is greater than the permitted maximum value in parameter commanded acceleration (see parameter "A-0-2203, Commanded acceleration").

Cause: In the PLC-Program a movement command for an axis was generated with invalid parameters.

Remedy: Actualize the PLC-Program.

3.7.60 F2229227, Deceleration below minimum

Display: F2229227 Axis error, Input_Range_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis. The deceleration for the required movement command, resp. the activated function block is less than the permitted minimum value in parameter commanded deceleration (see parameter "A-0-2204, Commanded deceleration").

Cause: In the PLC-Program a movement command for an axis was generated with invalid parameters.

Remedy: Actualize the PLC-Program.

3.7.61 F2229228, Deceleration above maximum

Display: F2229228 Axis error, Input_Range_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis. The deceleration for the required movement command, resp. the activated function block is greater than the permitted maximum value in parameter commanded deceleration (see parameter "A-0-2204, Commanded deceleration").

Cause: In the PLC-Program a movement command for an axis was generated with invalid parameters.

Remedy: Actualize the PLC-Program.

3.7.62 F2229229, Jerk below minimum

Display: F2229229 Axis error, INPUT_RANGE_ERROR

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The jerk (A-0-0216) for the required movement command or the activated function block is less than the allowable minimum value.

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Remedy: Update the PLC program.

MLC_TABLE Diagnostics

3.7.63 F2229230, Jerk above maximum

Display: F2229230

Axis error, INPUT_RANGE_ERROR

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The jerk (A-0-0216) for the required movement command or the activated function block is greater than the allowable maximum value.

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Remedy: Update the PLC program.

3.7.64 F2229231, Invalid direction

Display: F2229231

Axis error, Input_Range_Error

If "A-0-0059, Position data scaling type" was set in such a way that the position data of the axis are to be processed in modulo format and positive or negative rotational direction was selected in "A-0-0203, Direction", a command value in the wrong direction causes error F2229231 to be generated.

Cause: Rotational direction of "modulo axis" incorrectly parameterized for drive-controlled positioning procedures.

Remedy: Check command value mode that was set.

3.7.65 F2229232, Invalid master control number

Display: F2229232

Axis error, Resource_Error

A variable of the type AXIS_REF is used in the PLC program that addresses a master axis in a remote control.

This present firmware version only supports access to local control axes.

Cause: A master axis of a remote control was addressed in the PLC program.

Solution: Update the PLC program.

3.7.66 F2229233, Invalid master axis number

Display: F2229233

Axis error, Resource_Error

A variable of the type AXIS_REF is used in the PLC program that addresses a master axis unknown in the control.

Cause: An unknown axis was addressed in the PLC program.

Solution: Update the PLC program or configure the missing axis in the control (see parameter "C-0-0484, Axes configuration list").

3.7.67 F2229234, Invalid CamTable ID

Display: F2229234

Axis error, Resource_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The required cam (CAMTableID) is unknown (refer to Description of data type MC_CAM_ID and parameter "A-0-2740, ELS, CamIn, cam table preselection").

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program, load the required cam into the drive if necessary.

3.7.68 F2229235, Error in MotionProfile

Display: F2229235

Axis error, System_Error

The control checks whether the defined MotionProfiles (16 single motion steps max.) are plausible in themselves during the activation of the electronic MotionProfile. The error is generated if the plausibility checks failed. Depending on whether the error is in block 1 or block 2, a number is displayed in parameter "A-0-2902, MotionProfile 0, diagnostics" or "A-0-2903, MotionProfile 1, diagnostics".



Even if the MotionProfile contains several errors, the diagnostic message is only generated once and not for each error in the profile.

Cause:	Solution:
1: The master axis initial positions of the motion steps used do not increase	Check list "A-0-2912, MotionProfile 0, list of initial master axis positions" or "A-0-2922, MotionProfile 1, list of initial master axis positions".
2: With an absolute MotionProfile, the sum of the individual distances is not "0" or a multiple of "A-0-0045, Modulo value"	Check list "A-0-2914, MotionProfile 0, list of distances" and "A-0-2924, MotionProfile 1, list of distances".
3: With a relative MotionProfile, the number of motion steps is less than "2"	Check parameter "A-0-2910, MotionProfile 0, number of motion steps" and "A-0-2920, MotionProfile 1, list of motion steps".
201...216: The checked motion step is "Rest-in-Velocity" or "Velocity-in-Velocity". The following step consists of a profile that is not "Velocity-in-Rest" or "Rest-in-Velocity". The number of the checked motion step can be taken from the second or third place of the diagnostic number	Check list "A-0-2913, MotionProfile 0, list of motion laws" and "A-0-2923, MotionProfile 1, list of motion laws".
301...316: The checked motion step is "Rest-in-Velocity" or "Velocity-in-Velocity". The following step consists of a profile that is either "Velocity-in-Rest" or "Rest-in-Velocity". The velocity of the checked step and the velocity of the following step do not correspond. The number of the checked motion step can be taken from the second or third place of the diagnostic number	Check list "A-0-2915, MotionProfile 0, list of slave axis velocities" and "A-0-2925, MotionProfile 1, list of slave axis velocities".
401...416: The checked motion step is "Velocity-in-Rest" or "Velocity-in-Velocity". The previous step consists of a profile that is not "Rest-in-Velocity" or "Velocity-in-Velocity". The number of the checked motion step can be taken from the second or third place of the diagnostic number	Check list "A-0-2913, MotionProfile 0, list of motion laws" and "A-0-2923, MotionProfile 1, list of motion laws".
501...516: The checked motion step is "Velocity-in-Rest" or "Velocity-in-Velocity". The previous step consists of a profile that is either "Velocity-in-Rest" or "Rest-in-Velocity". The velocity of the step checked and the velocity of the previous step do not correspond. The number of the checked motion step can be taken from the second or third place of the diagnostic number	Check list "A-0-2915, MotionProfile 0, list of slave axis velocities" and "A-0-2925, MotionProfile 1, list of slave axis velocities".
601...699: The 1st table element of the cam table used is not equal to zero or the cam table is invalid. The number of the checked motion step can be taken from the second or third place of the diagnostic number	Check list "A-0-2913, MotionProfile 0, list of motion laws" and "A-0-2923, MotionProfile 1, list of motion laws".

MLC_TABLE Diagnostics

Cause:	Solution:
701...716: The checked motion step is "Velocity-in-Rest", "Velocity-in-Velocity" or "Rest-in-Velocity". The distance of the motion step is "0", an unauthorized number. The number of the checked motion step can be taken from the second or third place of the diagnostic number	Check list "A-0-2914, MotionProfile 0, list of distances" and "A-0-2924, MotionProfile 1, list of distances".
801...816: The checked motion step is "constant velocity". The following step consists of a profile that is either "Velocity-in-Rest" or "Rest-in-Velocity". The velocity of the checked step and the velocity of the following step do not correspond. The number of the checked motion step can be taken from the second or third place of the diagnostic number	Check list "A-0-2915, MotionProfile 0, list of slave axis velocities" and "A-0-2925, MotionProfile 1, list of slave axis velocities".
901...916: The checked motion step is "Rest-in-Velocity" or "Velocity-in-Velocity". The following step consists of a profile with "constant velocity". The velocity of the checked step and the velocity of the following step do not correspond. The number of the checked motion step can be taken from the second or third place of the diagnostic number	Check list "A-0-2915, MotionProfile 0, list of slave axis velocities" and "A-0-2925, MotionProfile 1, list of slave axis velocities".

3.7.69 F2229263, RatioNumerator below minimum

Display: F2229263

Axis error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The master drive gear input revolutions (RatioNumerator) for the requested motion command or the enabled function block are less than the permitted minimum value in parameter "A-0-2720, ELS, master axis gear, input revolutions".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.7.70 F2229264, RatioNumerator above maximum

Display: F2229264

Axis error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The master drive gear input revolutions (RatioNumerator) for the requested motion command or the enabled function block are greater than the permitted maximum value in parameter "A-0-2720, ELS, master axis gear, input revolutions".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.7.71 F2229265, RatioDenominator below minimum

Display: F2229265

Axis error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The master drive gear output revolutions (RatioDenominator) for the requested motion command or the enabled function block are less than the permitted

ted minimum value in parameter "A-0-2721, ELS, master axis gear, output revolutions".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.7.72 F2229266, RatioDenominator above maximum

Display: F2229266 Axis error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The master drive gear output revolutions (RatioDenominator) for the requested motion command or the enabled function block are greater than the permitted maximum value in parameter "A-0-2721, ELS, master axis gear, output revolutions".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.7.73 F2229267, MasterFineAdjust below minimum

Display: F2229267 Axis error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The gear ratio fine adjust (MasterFineadjust) for the requested motion command or the enabled function block is less than the permitted minimum value in parameter "A02722, ELS, gear ratio fine adjust".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.7.74 F2229268, MasterFineAdjust above maximum

Display: F2229268 Axis error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The gear ratio fine adjust (MasterFineadjust) for the requested motion command or the enabled function block is greater than the permitted maximum value in parameter "A02722, ELS, gear ratio fine adjust".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.7.75 F2229269, Invalid SyncMode

Display: F2229269 Axis error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The required synchronization direction (SyncMode) is unknown (refer to Description of data type MC_SYNC_DIRECTION).

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

MLC_TABLE Diagnostics

3.7.76 F2229270, Invalid StartMode

Display: F2229270

Axis error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The required type of synchronization (StartMode) is unknown (refer to Description of data type MC_START_MODE).

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.7.77 F2229271, Cam distance below minimum value

Display: F2229271

Axis error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The cam distance (CamShaftDistance) for the requested motion command or the enabled function block is less than the permitted minimum value in parameter "A02741, ELS, CamIn, cam distance".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.7.78 F2229272, Cam distance above maximum value

Display: F2229272

Axis error, Input_Range_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The cam distance (CamShaftDistance) for the requested motion command or the enabled function block is greater than the permitted maximum value in parameter "A02741, ELS, CamIn, cam distance".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.7.79 F2229273, Command rejected while 'Parameter Mode'

Display: F2229273

Axis error, Other_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis. The control and all axes are in parameter mode. In parameter mode no movement commands are executable.

Cause: In the PLC-Program a movement command was generated, although the control is in parameter mode.

Remedy: Switch the control to operating mode and subsequently activate the desired movement command.

3.7.80 F2229274, Axis not referenced

Display: F2229274

Axis error, Other_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program. The axis is not homed and can only be moved relatively.

Cause: A motion command was generated in the PLC program for an axis without position reference that requests the position reference of the axis.

Solution: Home the axis using function block MB_Home or parameter "A-0-2807, Command: Set absolute measuring" and then enable the required motion command.

3.7.81 F2229275, Command aborted

Display: F2229275 Axis error, Other_Error

In the PLC-Program a movement command is generated and aborted during execution. This command must not be aborted.

Cause: In the PLC-Program a movement command is generated and aborted during execution. This command must not be aborted.

Remedy: Actualize the PLC-Program.

3.7.82 F2229276, Control error

Display: F2229276 Axis error, System_Error

The axis is stopped because of a control error. An ongoing motion command in the PLC - program will be aborted. The control doesn't accept any further motion command.

Remedy: Correct and quit the error of the control. Subsequently activate the desired movement command again.

3.7.83 F2229277, Direct master axis change

Display: F2229277 Axis error, Other_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The command requests the axis to follow a master axis (e.g. MC_CamIn or MC_GearIn). The axis is already following another master axis. The direct switchover to a new master axis is not supported in this firmware version.

Cause: A motion command was generated in the PLC program that requires a direct change of master axis from the axis.

Solution: Disconnect the axis from the original master axis (for instance using MC_CamOut or MC_GearOut). Then enable the desired motion command.

3.7.84 F2229278, Disabled axis

Display: F2229278 Axis error, System_Error

The axis was switched to "disabled" state using parameter "A-0-0024, Axis condition". A disabled axis cannot execute motion commands.

Cause: A motion command for a disabled axis was generated in the PLC program.

Solution: Switch the control to parameterization mode (parameter C-0-0451, Motion, target mode) and enable the axis (parameter A-0-0024, Axis condition). Then restart the desired motion command.

3.7.85 F2229279, Command 'parking axis' active

Display: F2229279 Axis error, System_Error

The axis was switched to "parked" state using parameter "A-0-0024, Axis condition". A parked axis cannot execute motion commands.

Cause: A motion command for a parked axis was generated in the PLC program.

Solution: Switch the control to parameterization mode (parameter C-0-0451, Motion, target mode) and enable the axis (parameter A-0-0024, Axis condition). Then restart the desired motion command.

MLC_TABLE Diagnostics

3.7.86 F2229280, Command rejected while 'Coordinated Motion'

Display: F2229280

Axis error, System_Error

Following the successful call of MC_AddAxisToGroup, the axis is in the "Coordinated Motion" state.

The following function modules can be used in this state:

- all kinematics function blocks
- MC_Reset

All other FBs result in the error described above.

Cause: An unauthorized motion command was generated for an axis in the "Coordinated Motion" state in the PLC program.

Solution: Update the PLC program.

3.7.87 F2229281, Invalid float data

Display: F2229281

Axis error, System_Error

In the PLC-Program a movement command is generated, which cannot be executed by the addressed axis.

At least one input parameter of a function block contains an invalid floating point value.

Cause: In the PLC-Program a movement command for an axis was generated with invalid parameters.

Remedy: Actualize the PLC-Program.

3.7.88 F2229282, MotionProfile, SetSelection below minimum value

Display: F2229282

Axis error, System_Error

A motion command "MotionProfile" that cannot be executed by the addressed axis is generated in the PLC program.

Cause: The input value "SetSelection" was assigned a value of less than the minimum value (currently 0).

Remedy: Update the PLC program.

3.7.89 F2229283, MotionProfile, SetSelection above maximum value

Display: F2229283

Axis error, System_Error

A motion command "MotionProfile" that cannot be executed by the addressed axis is generated in the PLC program.

Cause: The input value "SetSelection" was assigned a value of greater than 1.

Remedy: Update the PLC program.

3.7.90 F2229284, Cam table is write-protected

Display: F2229284

Axis error, System_Error

The active cam table could not be changed by MB_ChangeProfileSet or MB_ChangeProfileStep.

Cause: The cam table changed by MB_ChangeProfileSet or MB_ChangeProfileStep is active.

Remedy: -

3.7.91 F2229285, CAM table, usage counter out of range

Display: F2229285

Axis error, System_Error

MLC_TABLE Diagnostics

A motion command "MotionProfile" that cannot be executed by the addressed axis is generated in the PLC program.

Cause: The input value "SetSelection" was assigned a value of greater than 1.

Remedy: Update the PLC program.

3.7.92 F2229286, Choice relative positioning above max. value

Display: F2229286 Axis error, System_Error

A motion command "MotionProfile" that cannot be executed by the addressed axis is generated in the PLC program.

Cause: The input value "SetSelection" was assigned a value of greater than 1.

Remedy: Update the PLC program.

3.7.93 F2229287, Can not assign axis to kinematics

Display: F2229287 Axis error, Other_Error

The function block MC_AddAxisToGroup attempts to assign an axis to a kinematic in the PLC program.

Cause:	Solution:
The axis does not belong to the kinematics	Only assign axes to the kinematic using "MC_AddAxisToGroup" that have previously been configured to the kinematic.
The axis does not belong to the kinematic but is a belt axis.	Only assign axes to the kinematic using "MC_AddAxisToGroup" that have previously been configured to the kinematic and are not belt axes.

3.7.94 F2229296, Absolute entry point in FlexProfile not found

Display: F2229296 Axis error, System_Error

The specified access position is not available in the FlexProfile.

As the start position cannot be found, the profile cannot be started, i.e. the master axis is located in a position in which the resulting slave axis position cannot be definitively determined.

Cause: An attempt was made to begin the FlexProfile with absolute start mode.

However, the selected FlexProfile is shorter than the current master axis position. The access point cannot be determined.

Remedy: Ensure that the FlexProfile is correct.

Position the master axis in such a way that a valid access point into the profile can be determined or select another start mode.

3.7.95 F2229297, Absolute entry in FlexProfile not possible

Display: F2229297 Axis error, System_Error

The specified access position into the FlexProfile is not clear.

Cause: Different masters are used in the selected FlexProfile.

An absolute access into such a profile can only take place up to the first change of master as, after this time, the access point can no longer be definitively determined.

Remedy: Position the master axis in such a way that a valid access point into the profile can be determined or select another start mode.

MLC_TABLE Diagnostics

3.7.96 F2229298, Master velocity of FlexProfile is negative

Display: F2229298

Axis error, System_Error

The current master axis velocity is negative.

Cause: The selected FlexProfile contains either conditions or time-master axes.
Such Profiles can only be operated with positively rotating master axes.

Remedy: Update the PLC program.

3.7.97 F2229300, Invalid command channel

Display: F2229300

Axis error, Access_Error

An invalid command channel is selected in the PLC program using the function module MB_OpenCyclic...

Cause: Firmware version and PLC library (ML_PLCOpen.lib, MLBase.lib) do not match.

Remedy: Use the corresponding PLC library version for the firmware.

3.7.98 F2229301, Command rejected while 'Controlled Motion'

Display: F2229301

Axis error, Access_Error

After the successful call of ML_ControlOn, the axis is in the "Controlled Motion" state.

The following function modules can be used in this state:

- ML_OpenCyclicPositionChannelCtrl,
- ML_OpenCyclicVelocityChannelCtrl,
- ML_OpenCyclicTorqueChannelCtrl,
- ML_OpenCyclicAnalogChannelCtrl,
- ML_ControlOff.

All other FBs result in the error described above.

Cause: An unauthorized motion command was generated in the PLC program for an axis in the "Controlled Motion" state.

Solution: Update the PLC program.

3.7.99 F2229310, Error in calculation of FlexProfile step

Display: F2229310

Axis error, Access_Error

This category of error leads to the axis being switched off by the firmware. Differentiation between several numbers helps to better locate the cause of the error.

Cause: An error has occurred in the firmware when calculating the motion laws.

Remedy: Please contact customer service.

3.7.100 F2229311, FlexProfile: Invalid switching position

Display: F2229311

Axis error, Access_Error

A motion command "FlexProfile" that cannot be executed by the addressed axis is generated in the PLC program.

Cause: The input value "SwitchingPosition" was assigned an incorrect value.

Remedy: Update the PLC program.

3.7.101 F2229312, FlexProfile: Invalid FlexProfile startmode

Display: F2229312

Axis error, Access_Error

MLC_TABLE Diagnostics

A motion command "FlexProfile" that cannot be executed by the addressed axis is generated in the PLC program.

Cause: The input value "ProfileEntry" was assigned an incorrect value.

Remedy: Update the PLC program.

3.7.102 F2229313, FlexProfile: Invalid FlexProfile slave axis offset

Display: F2229313

Axis error, Access_Error

A motion command "FlexProfile" that cannot be executed by the addressed axis is generated in the PLC program.

Cause: The input value "SlaveOffset" was assigned an incorrect value.

Remedy: Update the PLC program.

3.7.103 F2229314, Sum of dist. not 0 or mod. value, cyclic exec. not pos.

Display: F2229314

Axis error, Access_Error

A motion command "FlexProfile" that cannot be executed by the addressed axis is generated in the PLC program.

Cause: With the FlexProfile, the sum of the distances for a cyclic operation, must correspond to 0 or to the Modulo value of the slave axis (should this be rotatory).

Remedy: Update the configuration of the FlexProfile.

3.7.104 F2229315, Invalid FlexProfile: Execution not possible

Display: F2229315

Axis error, Access_Error

The FlexProfile cannot be started as it is still invalid.

Cause: The selected FlexProfile was not yet checked or the check failed.

Remedy: Update the configuration of the FlexProfile. Start the check of the FlexProfile via the corresponding parameter.

3.7.105 F2229335, FlexProfile: Set is write-protected

Display: F2229335

Axis error, Access_Error

The selected profile cannot be applied.

Cause: The selected MotionProfile is currently active and cannot therefore be overwritten.

Remedy: Disable the selected MotionProfile before carrying out the update.

3.7.106 F2229336, FlexProfile: Invalid step number

Display: F2229336

Axis error, Access_Error

The function block "MB_ChangeFlexStep" is used in the PLC program to initiate a change of a FlexProfile that cannot be executed by the addressed axis.

Cause: The input value "StepNumber" was assigned a value that is greater than the maximum or the current number of motion steps of the selected FlexProfile.

Remedy: Update the PLC program.

3.7.107 F2229337, FlexProfile: Set number out of range

Display: F2229337

Axis error, Access_Error

The function block "MB_ChangeFlexSet" or "MB_ChangeFlexSet" is used in the PLC program to initiate a change of a FlexProfile that cannot be executed by the addressed axis.

Cause: The input value "SetNumber" was assigned a value of greater than 3.

MLC_TABLE Diagnostics

Remedy: Update the PLC program.

3.7.108 F2229338, ChangeFlexProfile: Invalid nominal master velocity

Display: F2229338

Axis error, Access_Error

The function block "MB_ChangeFlexSet" in the PLC program has specified an invalid nominal master axis velocity.

Cause: The input value "MasterAxisVelocity" was assigned an incorrect value.

Remedy: Update the PLC program.

3.7.109 F2229339, ChangeFlexProfile: invalid operation mode

Display: F2229339

Axis error, Access_Error

The function block "MB_ChangeFlexStep" in the PLC program is specifying an operation mode for profile processing.

Cause: The input value "OperationMode" was assigned an incorrect value.

Remedy: Update the PLC program.

3.7.110 F2229341, FlexEvent: Set is write-protected

Display: F2229341

Axis error, Access_Error

A change in the event definitions of a FlexProfile MotionProfile that cannot be executed by the addressed axis is initiated in the PLC program using the function block MB_ChangeFlexEventSet.

Cause: The selected MotionProfile is currently active and cannot therefore be overwritten.

Remedy: Disable the selected MotionProfile before carrying out the update.

3.7.111 F2229342, FlexEvent: Set number out of range

Display: F2229342

Axis error, Access_Error

The function block MB_ChangeFlexEventSet is used in the PLC program to initiate a change of a MotionProfile block that cannot be executed by the addressed axis.

Cause: The input value "uiSetNumber" was assigned a value that is greater than the maximum number of motion steps.

Remedy: Update the PLC program.

3.7.112 F2229347, FlexProfile: Invalid. Single execution not possible

Display: F2229347

Axis error, Access_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The FlexProfile MotionProfile that was started with function block ML_FlexProfile cannot be executed "singly" but only "cyclically".

Cause: The motion command "FlexProfile" was started for an axis in the PLC program using parameters "EXECUTE_SINGLE" although the selected MotionProfile cannot be started in this mode.

Possible reasons:

- The last motion step of the selected MotionProfile is a "Flex" step.

Solution: Update the PLC program and/or correct the selected MotionProfile.

3.7.113 F2229348, FlexProfile: Invalid. Cyclic execution not possible

Display: F2229348

Axis error, Access_Error

MLC_TABLE Diagnostics

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The FlexProfile MotionProfile that was started with function block ML_Flex-Profile cannot be executed "cyclically" but only "singly".

Cause: The motion command "FlexProfile" was started for an axis in the PLC program using parameter "EXECUTE_CYCLIC" although the selected Motion-Profile cannot be started in this mode.

Possible reasons:

- The starting velocity of the first motion step is not consistent with the end velocity of the last motion step.
- The starting acceleration of the first motion step is not consistent with the end acceleration of the last motion step.
- The starting jerk of the first motion step is not consistent with the end jerk of the last motion step.

Solution: Update the PLC program and/or correct the selected MotionProfile.

3.7.114 F2229351, Synchronisation velocity below minimum

Display: F2229351

Axis error, Access_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The synchronization velocity for the requested motion command or the enabled function block is less than the permitted minimum value in parameter "A-0-2790, ELS, synchronization velocity".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.7.115 F2229352, Synchronisation velocity above maximum

Display: F2229352

Axis error, Access_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The synchronization velocity for the requested motion command or the enabled function block is greater than the permitted maximum value in parameter "A-0-2790, ELS, synchronization velocity".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.7.116 F2229353, Synchronisation acceleration below minimum

Display: F2229353

Axis error, Access_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The synchronization velocity for the requested motion command or the enabled function block is less than the permitted minimum value in parameter "A-0-2790, ELS, synchronization velocity".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

MLC_TABLE Diagnostics

3.7.117 F2229354, Synchronisation acceleration above maximum

Display: F2229354

Axis error, Access_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The synchronization velocity for the requested motion command or the enabled function block is greater than the permitted maximum value in parameter "A-0-2790, ELS, synchronization velocity".

Cause: In the PLC program, a motion command with invalid parameters was generated for an axis.

Solution: Update the PLC program.

3.7.118 F2229359, FlexProfile: Invalid master axis offset

Display: F2229359

Axis error, Access_Error

A motion command "FlexProfile" that cannot be executed by the addressed axis is generated in the PLC program.

Cause: The input value "MasterOffset" was assigned an incorrect value.

Negative values for the "MasterOffset" are not permitted.

Remedy: Update the PLC program.

3.7.119 F2229360, Command rejected while 'Controlled Motion'

Display: F2229360

Axis error, State_Machine_Error

A motion command that cannot be executed by the addressed axis is generated in the PLC program.

The axis is in the "Controlled Motion" state. The requested motion command and the enabled function block are not permitted in the "Controlled Motion" state (see the Axis type status diagram).

Cause: An unauthorized motion command was generated in the PLC program for an axis in the "Controlled Motion" state.

Solution: Enable the desired motion command after the control has executed the current motion command and the axes have been switched to "Standstill" state or switch the axis to "Standstill" state using the MC_Stop state. Then enable the desired motion command.

3.7.120 F2229361, Command not supported by axis (Configuration)

Display: F2229361

Axis error, State_Machine_Error

A command that is not supported by the addressed axis is generated in the PLC program.

When configuring the axis, a setting was selected that does not support the desired command.

Example: The function block MC_Torque cannot be executed if its operation mode configuration is deactivated via the parameter A-0-0007. The diagnostic message described is generated during the attempt.

Cause: An illegal command was generated for the addressed axis in the PLC program.

Solution: Update the PLC program or change the configuration of the axis in the control (see parameter "C-0-0484, Axis configuration" and "A-0-0007, Axis configuration").

3.7.121 F2229362, Command not supported by axis (Functional Package)

Display: F2229362 Axis error, State_Machine_Error

A command that is not supported by the addressed axis is generated in the PLC program.

When configuring the axis, a basic or function package was selected that does not support the desired command.

Example: The function block MC_MoveAbsolute cannot be executed if the axis was created for OpenLoop operation.

Cause: An illegal command was generated for the addressed axis in the PLC program.

Solution: Update the PLC program or change the configuration of the axis in the control (see parameter "C-0-0484, Axis configuration").

3.7.122 F2229363, MotionProfile invalid

Display: F2229363 Axis error, Input_Invalid_Error

The MotionProfile is invalid.

Cause: The MotionProfile contains one or several steps with a length of 0.

Remedy: Set the step length to a value higher than 0 or remove that step from the profile.

3.7.123 F2299400, General kinematics error

Display: F2299400 Axis error, State_Machine_Error

Cause: General Kinematics Error

3.7.124 F2299401, Invalid control number

Display: F2299401 Axis error, State_Machine_Error

Cause: Invalid Control Number

3.7.125 F2299402, Invalid kinematics number

Display: F2299402 Axis error, State_Machine_Error

Cause: Invalid Kinematics Number

3.7.126 F2299403, Invalid command type

Display: F2299403 Axis error, State_Machine_Error

Cause: Invalid Command Type

3.7.127 F2299404, Command not supported by kinematics

Display: F2299404 Axis error, State_Machine_Error

Cause: Command Not Supported by Kinematics

3.7.128 F2299405, Command rejected while 'StandStill Incomplete'

Display: F2299405 Axis error, State_Machine_Error

Cause: The kinematics state machine is in the "Standstill Incomplete" state. An attempt was made to send an invalid command.

Solution: Refer to the description of "K-0-0022, Extended kinematic status" (state machine).

MLC_TABLE Diagnostics

3.7.129 F2299406, Command rejected while 'Program Stopping'

Display: F2299406

Axis error, State_Machine_Error

Cause: The kinematics state machine is in the "PM (Programmed Motion), Program Stopping" state. An attempt was made to send an invalid command.

Solution: Refer to the description of "K-0-0022, Extended kinematic status" (state machine).

3.7.130 F2299407, Command rejected while 'StandStill Complete'

Display: F2299407

Axis error, State_Machine_Error

Cause: The kinematics state machine is in the "Standstill Complete" state. An attempt was made to send an invalid command.

Solution: Refer to the description of "K-0-0022, Extended kinematic status" (state machine).

3.7.131 F2299408, Invalid command number

Display: F2299408

Axis error, State_Machine_Error

Cause: Invalid Kinematics Command Number

3.7.132 F2299409, Command not supported in this state

Display: F2299409

Axis error, State_Machine_Error

Cause: Command Not Supported in this State

3.7.133 F2299410, Reset still 'ErrorStop'

Display: F2299410

Axis error, State_Machine_Error

Cause: Reset while Error-Stop active

3.7.134 F2299411, Command rejected while 'Program Running'

Display: F2299411

Axis error, State_Machine_Error

Cause: The kinematics state machine is in the "PM (Programmed Motion), Program Running" state. An attempt was made to send an invalid command.

Solution: Refer to the description of "K-0-0022, Extended kinematic status" (state machine).

The "Programmed Motion" state is described with all its substates. The permitted commands can be seen here.

3.7.135 F2299412, Error while selecting RCL program

Display: F2299412

Axis error, State_Machine_Error

Cause: Error while selecting RCL program.

3.7.136 F2299413, Command rejected while 'Parameter Mode'

Display: F2299413

Axis error, State_Machine_Error

Cause: FBs were called in the parameterization mode (P2) via the PLC program. The FBs are only supported in the operating mode (P4).

3.7.137 F2299414, Command rejected while 'ErrorStop'

Display: F2299414

Axis error, State_Machine_Error

Cause: The kinematics state machine is in the "Errorstop" state. An attempt was made to send an invalid command.

Solution: Refer to the description of "K-0-0022, Extended kinematic status" (state machine).

3.7.138 F2299415, Command aborted

Display: F2299415 Axis error, State_Machine_Error

Cause: Command was aborted.

3.7.139 F2299416, Switching to 'StandStill' not possible

Display: F2299416 Axis error, State_Machine_Error

Cause: The kinematics state machine is not ready for switch to "Standstill".

Solution: Refer to the description of "K-0-0022, Extended kinematic status" (state machine).

3.7.140 F2299417, RCL process does not exist

Display: F2299417 Axis error, State_Machine_Error

Cause: RCL process does not exist.

3.7.141 F2299501, Two PLC-MotionCommands per motion cycle not allowed

Display: F2299501 Axis error, State_Machine_Error

Cause: Two kinematic Motion commands were issued in one Motion cycle for one kinematics. This is not permitted.

Solution: Use the "InBuffer" output of the function block to start the next function block.

3.7.142 F2299502, Command rejected - buffer full

Display: F2299502 Axis error, State_Machine_Error

Cause: The buffer for the kinematic Motion command is full. New motion commands can only be issued after a motion has been completed.

3.7.143 F2299503, Invalid motion command

Display: F2299503 Axis error, State_Machine_Error

Cause: An invalid kinematic Motion command was issued.

3.7.144 F2299505, Synchronisation to more than one belt not possible

Display: F2299505 Axis error, Input_Invalid_Error

Cause: A kinematic Motion command was issued that should synchronize to more than one belt.

Solution: Issue only kinematic Motion commands traveling synchronously to one belt maximum.

Cause: A kinematic Motion command was issued that should synchronize to a second belt without being desynchronized from the first belt before.

Solution: Issue a kinematic Motion command that should desynchronize from the first belt before.

3.7.145 F22B0003, Kinematics does not exist

Display: F22B0003 Axis error, State_Machine_Error

Cause: When calling the function block MC_AddAxisToGroup or MC_RemoveAxis-FromGroup, a kinematics was specified that does not exist.

Solution: Check the inputs of the kinematic PLCopen function blocks.

MLC_TABLE Diagnostics

3.7.146 F22B0004, Axis not part of kinematics

Display: F22B0004

Axis error, State_Machine_Error

Cause: When calling the function block MC_AddAxisToGroup or MC_RemoveAxis-FromGroup, an axis was specified that does not belong to the kinematics.

Solution: Check the inputs of the function blocks.

3.7.147 F22B0005, Axis not existing

Display: F22B0005

Axis error, State_Machine_Error

Cause: When calling the function block MC_AddAxisToGroup or MC_RemoveAxis-FromGroup, an axis was specified that does not exist.

Solution: Check the inputs of the kinematic PLCopen function blocks.

3.7.148 F22B0010, Error while internal converting RoCo Parameter

Display: F22B0010

Axis error, System_Error

Cause: An error occurred while processing the K-Parameters:

- Number of the kinematics not OK (see C-0-2484),
- Number or type of the axes in the kinematics not correct (see K-0-0008),
- Acceleration factor of one/several axes incorrect,
- Velocity factor of one/several axes incorrect,
- Position factor of one/several axes incorrect,
- Access or indexing on the axes incorrect,
- Internal memory of the RoCo not available,
- Internal default parameters not correct.

Remedy: Checkup the listed errors, please.

3.7.149 F22B0011, Error while int. conv. RoCo Parameter in conv. phase 0

Display: F22B0011

Axis error, System_Error

Cause: General parameters of all kinematics incorrect
(see C-0-2840, C-0-0400, C-0-0001).

Remedy: Checkup the listed parameters, please.

3.7.150 F22B0012, Error while int. conv. RoCo Parameter in conv. phase 1

Display: F22B0012

Axis error, System_Error

Velocity parameters in the kinematics are incorrect:

(refer to K-0-0003, A-0-0032, A-0-0033, A-0-0056, A-0-0057, A-0-0058)

3.7.151 F22B0013, Error while int. conv. RoCo Parameter in conv. phase 2

Display: F22B0013

Axis error, System_Error

Position parameters in the kinematics are incorrect:

(refer to A-0-0034 scaled with A-0-00053, A-0-00054, A-0-00055).

3.7.152 F22B0014, Error while int. conv. RoCo Parameter in conv. phase 3

Display: F22B0014

Axis error, System_Error

Cause: General parameters of a kinematics incorrect

(see K-0-0002, K-0-0007, K-0-0008, A-0-0059, A-0-0002, K-0-0021 ..
K-0-0036, K-0-0040, K-0-0041)

Remedy: Checkup the listed parameters, please.

3.7.153 F22B0015, Error while int. conv. RoCo Parameter in conv. phase 4

Display: F22B0015 Axis error, System_Error
Measuring system parameters are incorrect in the kinematics.

Cause	Solution
An axis of the kinematics is modulo-scaled and the modulo value is too high	Reduce the modulo value of the axis in the parameter A-0-0045

Fig. 3-7: Error cause and solution

3.7.154 F22B0016, Error while int. conv. RoCo Parameter in conv. phase 5

Display: F22B0016 Axis error, System_Error

Cause: Belt parameters incorrect (see K-0-0070 .. K-0-0074).

Remedy: Checkup the listed parameters, please.

3.7.155 F22E0000, Drive error (generic axis)

Display: F22E0000 Axis error, Device_Error

The diagnosis of generic axes/ drives cannot be detected. For a special diagnosis the user must use the diagnosis tool of the drive manufacturer.

3.7.156 F2350066, Axis list in K-0-0008 not completed

Display: F2350066 Axis error, Access_Error

Cause: Axis list in K-0-0008 is incomplete

3.7.157 F2350071, Gantry-Error: Maximum lag exceeded

Display: F2350071 Axis error, Access_Error

Cause: Gantry Error: Maximum lag reached.

3.8 F5 Errors, Control Errors

3.8.1 F5 Errors, Error Reaction

A logbook entry is generated; a message is shown on the control display.
All axes are decelerated the best possible.

3.8.2 F50B0002, sercos communication interrupted

Display: F50B0002 Controller error, System_Error

The OWL ring was interrupted after after it was detected that it was closed.

- Cause:**
- Defective fiber optic cable ring,
 - Defective drive,
 - The optical transmitting power of the control "C-0-0502, sercos master, OWG length " or that of one of the participants in the sercos interface ring are set incorrectly.

Solution: Check all fiber optic cables.

Adapt the optical transmitting power of all participants on the sercos ring to the actual OWG length.

MLC_TABLE Diagnostics

3.8.3 F50B0010, Hardware failure

Display: F50B0010

Controller error, Device_Error

The system clock can not be switched on the external clock of the sercos function module.

Cause: The function module does not produce the clock signal, so the controller can not relay the clock signal.

Remedy: Please, take contact with the customer service.

3.8.4 F50B0011, sercos device not compatible

Display: F50B0011

Controller error, Device_Error

Cause: sercos device not compatible.

3.8.5 F50D2000, Forced stop activated

Display: F50D2000

Controller error, System_Error

Although there are active axes in the project (real axes with at least 'Power-On', enabled virtual axes), the PLC has stopped (in IndraWorks via PLC symbol bar or in IndraLogic e.g. via the context menu point Online⇒Stop).

Cause: It is not possible to continue operating active axes when the PLC is stopped. A fail safe shutdown is enabled for these axes.

Solution: Clear error, restart PLC...

3.8.6 F5180001, Invalid master axes combination

Display: F5180001

Controller error, Other_Error

In the PLC-Program movements commands for synchronized movements are generated. These commandos cannot be executed by the control kernel at the same time. The required master axes combination is recursive. By the axes it is indirectly required to follow itself. Example: The first axis follows the second axis, this axis follows the third. If the third axis requires to follow the first, the control kernel generates the error "Invalid master axes combination".

Cause: In the PLC-Program movement commands for synchronized movements are generated, which cannot be executed by the control kernel at the same time. A recursive master axes combination is not supported by the control kernel.

Remedy: Actualize the PLC-Program.

3.8.7 F5180005, Motion kernel exceeded control cycle time

Display: F5180005

Controller error, System_Error

The cycle time of the control is defined in parameter "C-0-0400, Motion, cycle time, command value". The control core must be processed within the defined cycle.

The Motion kernel primarily fulfills two tasks. These are:

Actual value measurement

Command value generation

If the second part of the Motion kernel, the command value generation, cannot be completely processed within the set Motion cycle, an error reaction is executed.

If the number of these failures (C-0-0422) is greater than the value set via parameter "C-0-0420 Motion, watchdog sensitivity", error "F0180005: Timeout cycle time Motion kernel" is issued.

MLC_TABLE Diagnostics

To check the times, the time needed to calculate the Motion can be read in the "Cycle times" dialog window. The times for the configured PLC task can be read from "Task configuration".

Cause:	Solution:
The time the Motion kernel requires is longer than one Motion cycle.	Increase the Motion cycle time "C-0-0400, Motion, cycle time, command value".
The Motion kernel has been displaced by one or more higher priority tasks.	- Check the runtimes of the tasks that have higher priority than the Motion kernel. Try to transfer program parts of this task that require a lot of time to tasks that have a lower priority than the Motion kernel. - Check if it is necessary that these tasks have higher priority than the Motion kernel. If necessary, reduce the priority of this task or increase the priority of the Motion kernel.

3.8.8 F5180006, Calculation of actual values exceeded cycle time

Display: F5180006

Controller error, System_Error

The cycle time of the control is defined in parameter "C-0-0400, Motion, cycle time, command value". The control core must be processed within the defined cycle.

The Motion kernel essentially fulfills two tasks. These are:

Actual value measurement

Command value generation

If the first part of the Motion kernel, the actual value measurement, cannot be completely processed within the set Motion cycle, error "F5180006: Cycle time exceeded for actual value measurement" is issued.

To check the times, the time needed to calculate the Motion can be read in the "Cycle times" dialog window. The times for the configured PLC task can be read from "Task configuration".

Cause:	Solution:
The time the Motion kernel requires for the actual value measurement is longer than for one Motion cycle.	Increase the Motion cycle time "C-0-0400, Motion, cycle time, command value".
The Motion kernel has been displaced by one or more higher priority tasks.	- Check the runtimes of the tasks that have higher priority than the Motion kernel. Try to transfer program parts of this task that require a lot of time to tasks that have a lower priority than the Motion kernel. - Check if it is necessary that these tasks have higher priority than the Motion kernel. If necessary, reduce the priority of this task or increase the priority of the Motion kernel.

3.8.9 F5300001, Over-temperature

Display: F5300001

Controller error, System_Error

The output monitoring of the PLS module is enabled with error class 'F5' in parameter "C-0-0300, PLS No.1, control word".

The temperature of at least one output driver at plugs 'X201' or 'X202' of the function module is too high. There can be several reasons for this:

- Short circuit in the connected cabling,

MLC_TABLE Diagnostics

- Defect in the connected device,
- Overloading of an output,
- Inadequate ventilation of the function module.



The output driver independently switches off the outputs. The error reaction of the output drivers cannot be influenced.



Output monitoring can be switched off in parameter C-0-0300 or the error class reduced.

Cause: Excess temperature of output drivers at plugs 'X201' and 'X202' of the programmable limit switch.

Solution: Check the cabling to the connected devices or the devices themselves.

3.8.10 F5300002, Power failure

Display: F5300002

Controller error, System_Error

Voltage monitoring of the programmable limit switch is enabled with error class 'F5' in parameter "C-0-0300, PLS No.1, control word". The voltage at plug 'X1S' of the function module is inadequate.



Voltage monitoring can be switched off in parameter C-0-0300 or the error class reduced.

Cause: Undervoltage at plug 'X1S' of the programmable limit switch.

Solution: Check the voltage supply to the function module.

3.8.11 F5300100, RTOS error on PLS FM

Display: F5300100

Controller error, System_Error

The cam switching device was switched off by the firmware.

Cause: An internal firmware error has appeared in the cam switching device.

Remedy: Please, take contact with the customer service.

3.8.12 F536000E, MLPI: Watchdog error

Display: F536000E

Controller error, Other_Error

An MLPI watchdog elapsed and triggered an error.

Cause: An MLPI task did not reset the watchdog within the configured time slot.

Remedy: Correct the MLPI call and check the watchdog settings.

3.9 F8 Errors, Fatal Control Error

3.9.1 F8 Errors, Error Reaction

Logbook entry is generated; message is shown on the display.

All axes are decelerated the best possible.

3.9.2 F80B0004, Double AT missing

Display: F80B0004

Fatal controller error, System_Error

Two consecutive drive telegrams (AT) from a drive or two consecutive Master Data Telegrams (MDT) from the control are not received.

Cause: **sercos II master communication:**

- Fiber optic cable not correctly screwed on,
- Defective fiber optic cable ring,
- Defective drive,
- The optical transmitting power of the control "C-0-0502, sercos master, OWG length " or that of a participant in the sercos interface ring are set incorrectly.

sercos III master communication:

- Ethernet cable is not plugged in correctly or removed at runtime,
- Defective Ethernet cable,
- Defective drive.

Solution: sercos II master communication:

Check all fiber optic cables.

Adjust the optical transmission power of all participants on the sercos ring to the actual OWG length and swap any defective participants if necessary.

sercos III master communication:

Check all Ethernet connections between the control and the drives.

3.9.3 F80B0015, RTOS error (Real Time Operating System)

Display: F80B0015

Fatal controller error, System_Error

The device was switched off by the firmware.

Cause: An internal firmware error occurred.

Solution: Please contact customer service.

3.9.4 F80B0016, AT-Data not valid

Display: F80B0016

Fatal controller error, Communication_Error

No valid data of a sercos III device from a control was detected in two consecutive drive telegrams (AT).

Cause:

- Ethernet cable is not plugged in correctly or removed at runtime,
- Defective Ethernet cable,
- Defective device,

Solution: Check all Ethernet connections between the control and the devices.

3.9.5 F80B0017, Consumer connection failure

Display: F80B0017

Fatal controller error, Communication_Error

A sercos III consumer connection of the control does not work cycle-synchronously.

Cause:

- The NewData bit of the sercos III connection does not toggle in the specified cycle,
- too many telegrams are canceled due to failures.
- An internal firmware error occurred.

Solution:

- Producer of the connection (sercos III slave) does not work correctly.
- Check all Ethernet connections between the control and the devices.

MLC_TABLE Diagnostics

3.9.6 F80B0018, Producer Connection failure

Display: F80B0018 Fatal controller error, Communication_Error

A sercos III slave reports an error in one of the sercos III consumer connections.

Cause:

- The NewData bit of the sercos III connection does not toggle in the specified cycle,
- too many telegrams are canceled due to failures.
- An internal firmware error occurred.

- Solution:**
- Producer of the connection (control or another sercos III slave) does not work correctly.
 - Check all Ethernet connections between the control and the devices.

3.9.7 F80B0019, Consumer connection timeout

Display: F80B0019 Fatal controller error, Communication_Error

A cycle-synchronous sercos III consumer connection does not start in CP4 with the valid data produced within the timeout period.

Cause:

- Device not yet ready,
- Timeout period too small,
- An internal firmware error occurred.

- Solution:**
- Check device,
 - Increase timeout period (C-0-0505).

3.9.8 F80B0162, Internal control error

Display: F80B0162 Fatal controller error, Communication_Error

Error in the cyclic data transfer.

Cause:

- Data transfer from sercos III FPGA failed

- Solution:** Please contact customer service.

3.9.9 F80B0163, Internal control error

Display: F80B0163 Fatal controller error, Communication_Error

Error in the cyclic data transfer.

Cause:

- Data transfer in the sercos III FPGA failed

- Solution:** Please contact customer service.

3.9.10 F8200023, Critical temperatur reached, processor will stop

Display: F8200023 Fatal controller error, Device_Error

The critical temperature was exceeded, the processor is stopped or the control hardware is shut down to prevent damage to the hardware.

CML25, CML45, CML65:

MLC_TABLE Diagnostics

The control is put into Sleep mode and "SLEEP" appears on the display.
The remanent data can no longer be stored.

VEP:

The control is powered down properly.
The remanent data can still be stored.

Critical temperatures for the controls

Control	Temperature
CML25	91°C (196°F)
CML45, CML65	74°C (165°F)
VEP	69°C (156°F)

See also diagnostics "E0200002, Temperature warning".

- Cause:**
- The control was mounted in a position that does not ensure sufficient ventilation.
 - No fan is mounted on the control when it is in a position that does not ensure sufficient ventilation.

Solution: Switch off the control and allow it to cool down.
Also provide adequate ventilation or mount a fan on the control hardware.

3.10 F9 Errors, Fatal System Error

3.10.1 F9 Errors, Error Reaction

A logbook entry is generated; a message is shown on the control display.
Firmware is no longer operating; call of FatalSystemErrorHandler(),
No error reaction to the drive; torque enabled.

3.10.2 F9010001, Default object on wrong address

Display: F9010001 Fatal system error, Access_Error
The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.3 F9010002, Memory allocation error, no memory available

Display: F9010002 Fatal system error, Access_Error
The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.4 F9010003, Invalid function pointer

Display: F9010003 Fatal system error, Access_Error
The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

MLC_TABLE Diagnostics

3.10.5 F90B0012, sercos interface watch dog occurred

Display: F90B0012

Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).**Remedy:** Please contact our service department.**3.10.6 F90B0020 up to F90B0028, RTOS Error (Real Time Operating System)**

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).**Remedy:** Please contact our service department.**3.10.7 F90B0029, DRI, upload of firmware into des CFL01.1-Q2-FPGA failed**

Display: F90B0029

Fatal system error, System_Error

The CrossCom module (CFL01.1-Q2) should be used as a sercos II interface for the drive ring. However, the required firmware cannot be loaded into the FPGA of the module.

The control was switched off by the firmware.

Cause:

- The CrossCom module (CFL01.1-Q2) is defective,
- an unsupported CrossCom module (CFL01.1-Q2) is connected,
- the firmware file "querdpll_fpga.bin" was not found on the Compact Flash card.

Solution: Perform a firmware download via IndraWorks.

If the error persists, the function module is defective. It must be exchanged.

3.10.8 F90B0030 up to F90B0124, RTOS Error (Real Time Operating System)

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).**Remedy:** Please contact our service department.**3.10.9 F90D1021, Error ReadParameter, no memory available**

Display: F90D1021

Fatal system error, Device_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).**Remedy:** Please contact our service department.**3.10.10 F90D1023, Error WriteParameter**

Display: F90D1023

Fatal system error, Device_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).**Remedy:** Please contact our service department.**3.10.11 F90D1024, Error WriteParameter, no memory available**

Display: F90D1024

Fatal system error, Device_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.12 F90D1032, No access to axes (1)

Display: F90D1032 Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.13 F90D1033, No access to axes (2)

Display: F90D1033 Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.14 F90D1038, Error getting MessageQueue

Display: F90D1038 Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.15 F90D1039, Thread could not be started

Display: F90D1039 Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.16 F90D103A, Left endless While-Loop

Display: F90D103A Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.17 F90D1204, Error, no memory available

Display: F90D1204 Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.18 F90D1209, Error, no memory available

Display: F90D1209 Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.19 F9180002, Maximum number of axes exceeded

Display: F9180002 Fatal system error, System_Error

MLC_TABLE Diagnostics

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.20 F9180003, Axis registration invalid

Display: F9180003

Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.21 F9180004, Invalid mode change requested

Display: F9180004

Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.22 F9200016, PLC watchdog expired

Display: F9200016

Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.23 F9200017, Hardware watchdog expired

Display: F9200017

Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.24 F9200020, MK1 watchdog expired

Display: F9200020

Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.25 F9200021, MK2 watchdog expired

Display: F9200021

Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.26 F9200034, No free memory (RAM) available

Display: F9200034

Fatal system error, System_Error

There is no more free working memory (RAM) available.

This has led to a critical system condition because other system procedures that require memory may no longer be able to be executed.

For example, communication to the drives is not possible.

See also the associated warning.

MLC_TABLE Diagnostics

Cause:	Remedy:
An error in the PLC user program that continues to reserve memory, but does not release it.	Check the PLC user program for errors of this type. Switch the control off and back on again and recheck it afterward.
An error in the firmware.	If, after careful investigation, the error is still occurs, please contact customer service.

3.10.27 F9200035, No free remanent memory (NVRAM) available

Display: F9200035

Fatal system error, System_Error

There is no more free remanent memory available for the control system (NVRAM).

This has led to a critical system state because other system procedures that require remanent memory may no longer be able to be executed.

See also the associated warning.



This error message does not concern the area of PLC Retain data.

Cause:	Solution:
The user has reserved too much remanent memory. This may be the case if too many objects have already been created that require remanent data (e.g. axes, certain parameters) and now another axis is to be created, for example.	Switch off the control and switch it back on. If the error persists, the control's remanent memory must be cleared, that is to say the control must be restored to its delivery condition. See also: Clear memory
An error in the firmware.	If, after careful investigation, the error is still displayed, please contact customer service.

3.10.28 F9220001, Invalid error reaction

Display: F9220001

Fatal system error, Access_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.29 F9220002, Error in the axis state machine

Display: F9220002

Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.30 F9240001, Exception, Divide Error

Display: F9240001

Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.31 F9240002, Exception, Invalid Opcode

Display: F9240002

Fatal system error, System_Error

The drive was switched off by the firmware.

MLC_TABLE Diagnostics

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.32 F9240003, Exception, Stack Fault

Display: F9240003 Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.33 F9240004, Exception, General Protection Fault

Display: F9240004 Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.34 F9240005, Exception, Page Fault

Display: F9240005 Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.35 F9240006, Exception, Coprocessor Error

Display: F9240006 Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.36 F9240007, Exception, Unknown Exception

Display: F9240007 Fatal system error, System_Error

The drive was switched off by the firmware.

Cause: An error occurred in the firmware (general software error).

Remedy: Please contact our service department.

3.10.37 F9240020, Timeout while sending the message queue

Display: F9240020 Fatal system error, System_Error

An internal firmware error occurred. The device was switched off by the firmware.

Cause: The firmware issued an error.

Remedy: Please contact the customer service.

3.10.38 F9240021, Timeout while receiving the message queue

Display: F9240021 Fatal system error, System_Error

An internal firmware error occurred. The device was switched off by the firmware.

Cause: The firmware issued an error.

Remedy: Please contact the customer service.

3.10.39 F9240022, No free buffer space to send a message

Display: F9240022

Fatal system error, System_Error

An internal firmware error occurred. The device was switched off by the firmware.

Cause: The firmware issued an error.

Remedy: Please contact the customer service.

3.10.40 F9240023, No free buffer space to receive a message

Display: F9240023

Fatal system error, System_Error

An internal firmware error occurred. The device was switched off by the firmware.

Cause: The firmware issued an error.

Remedy: Please contact the customer service.

3.10.41 F9240024, Error while sending the message queue

Display: F9240024

Fatal system error, System_Error

An internal firmware error occurred. The device was switched off by the firmware.

Cause: The firmware issued an error.

Remedy: Please contact the customer service.

3.10.42 F9240025, Error while receiving the message queue

Display: F9240025

Fatal system error, System_Error

An internal firmware error occurred. The device was switched off by the firmware.

Cause: The firmware issued an error.

Remedy: Please contact the customer service.

3.10.43 F9240026, Error response not possible

Display: F9240026

Fatal system error, System_Error

An internal firmware error occurred. The device was switched off by the firmware.

Cause: The firmware issued an error.

Remedy: Please contact the customer service.

3.10.44 F92C0003, Fatal transformation error

Display: F92C0003

Fatal system error, System_Error

Cause: FPU trap in transformation.

Remedy: E.g. division by zero in transformation
Inform after-sales service.

3.10.45 F92C0007, Inadmissible change of coordinate system

Display: F92C0007

Fatal system error, System_Error

Cause: Coordinate changeover from PC to WC that the control has not recognized correctly.

Solution: Incorrect software, notify customer service.

MLC_TABLE Diagnostics

3.10.46 F92C0023, HEAP-Overflow

Display: F92C0023

Fatal system error, System_Error

Cause: System heap limit reached.**Remedy:** Check system heap limit.**3.10.47 F92C0028, Invalid interpolation type**

Display: F92C0028

Fatal system error, System_Error

Cause: Inadmissible interpolation type in block preparation.**Remedy:** Inform after-sales service.**3.10.48 F92C0079, Invalid Robot Control configuration**

Display: F92C0079

Fatal system error, System_Error

Cause: Invalid Robot Control configuration**3.10.49 F92C007D, Invalid init mode**

Display: F92C007D

Fatal system error, System_Error

Cause: Fatal error during controller startup.**Remedy:** Inform after-sales service.**3.10.50 F92C00CC, Error in task suspend**

Display: F92C00CC

Fatal system error, System_Error

Cause: Error in 'suspending' a user process which had a runtime error.**Remedy:** Inform after-sales service.**3.10.51 F92C00CD, Error in usertask suspend**

Display: F92C00CD

Fatal system error, System_Error

Cause: Error in 'suspending' a user output process after a runtime error has occurred.**Remedy:** Inform after-sales service.**3.10.52 F92C00D4, Error in PARALLEL_END**

Display: F92C00D4

Fatal system error, System_Error

Cause: Sub-process Counter with PARALLEL_END not equal zero.**Remedy:** Inform after-sales service.**3.10.53 F92C00DD, Device-I/O: Exclusive access could not be secured**

Display: F92C00DD

Fatal system error, System_Error

Cause: For WRITE devices the exclusive access could not be secured.**Remedy:** Inform after-sales service.**3.10.54 F92C00DE, Device-I/O: Error in exclusive access**

Display: F92C00DE

Fatal system error, System_Error

Cause: After a WRITE device or after abort of a WRITE device, an error in the exclusive access has been detected.**Remedy:** Inform after-sales service.

3.10.55 F92C00E0, File chain not sequential

Display: F92C00E0

Fatal system error, System_Error

Cause: File chain not sequential. Error is detected during run-up (CHECK_USMEM).
User memory is reorganized, loss of all data.

Remedy: Inform after-sales service.

3.10.56 F92C00E1, Error in file management

Display: F92C00E1

Fatal system error, System_Error

Cause: Error in file management.

Remedy: Inform after-sales service.

3.10.57 F92C00E2, File management error in file-I/O

Display: F92C00E2

Fatal system error, System_Error

Cause: Error in file management.

Remedy: Inform after-sales service.

3.10.58 F92C00E3, File management error in organization block

Display: F92C00E3

Fatal system error, System_Error

Cause: File management error in the organization part of the user memory.
Might be too low SRAM battery voltage.
Might be corrupt data structure.

Remedy: Check battery voltage.
Inform customer service.

3.10.59 F92C00E4, File management error in file chain

Display: F92C00E4

Fatal system error, System_Error

Cause: File management error in organization block. Error is detected during power up, reset or restore. User memory is reorganized, loss of all files.

Solution: Inform customer service.

3.10.60 F92C00E7, Invalid write access (end of file)

Display: F92C00E7

Fatal system error, System_Error

Cause: Write access with inadmissible destination address (file end).

Remedy: Inform after-sales service.

3.10.61 F92C00E8, Invalid write access (destination address too large)

Display: F92C00E8

Fatal system error, System_Error

Cause: Write access with inadmissible destination address (file end).

Remedy: Inform after-sales service.

3.10.62 F92C00E9, End of file exceeded

Display: F92C00E9

Fatal system error, System_Error

Cause: End of file exceeded!

Remedy: Inform after-sales service.

3.10.63 F92C00EB, Invalid file read mode

Display: F92C00EB

Fatal system error, System_Error

MLC_TABLE Diagnostics

Cause: Inadmissible file read mode.

Remedy: Inform after-sales service.

3.10.64 F92C00EC, Invalid file open mode

Display: F92C00EC

Fatal system error, System_Error

Cause: Inadmissible file read mode.

Remedy: Inform after-sales service.

3.10.65 F92C00ED, Allocation error

Display: F92C00ED

Fatal system error, System_Error

Cause: Allocation error.

Remedy: Inform after-sales service.

3.10.66 F92C00EE, Wrong file open mode for Allocation

Display: F92C00EE

Fatal system error, System_Error

Cause: Allocation error.

Remedy: Inform after-sales service.

3.10.67 F92C00F0, Wrong control mode for file list

Display: F92C00F0

Fatal system error, System_Error

Cause: Incorrect control mode of Dir.

Remedy: Inform after-sales service.

3.10.68 F92C00F1, Wrong control mode for file close

Display: F92C00F1

Fatal system error, System_Error

Cause: Wrong control mode for file close.

Remedy: Inform after-sales service.

3.10.69 F92C00F4, File chain not sequential

Display: F92C00F4

Fatal system error, System_Error

Cause: File chain not sequential.

Remedy: Inform after-sales service.

3.10.70 F92C0314, File management error in organization block

Display: F92C0314

Fatal system error, System_Error

Cause: File management error in organisation part. Error is detected during run-up, CHECK_USMEM.

User memory is reorganized, loss of all data.

Remedy: Inform after-sales service.

3.10.71 F92C0318, Wrong block status of file

Display: F92C0318

Fatal system error, System_Error

Cause: Fatal file management error.

Remedy: Inform after-sales service, see notice at beginning of this chapter.

3.10.72 F92C0319, File not sequential

Display: F92C0319

Fatal system error, System_Error

Cause: File management error in organisation part. Error is detected during run-up, CHECK_USMEM.

User memory is reorganized, loss of all data

Remedy: Inform after-sales service, see notice at beginning of this chapter.

3.10.73 F92C043E, Wrong absolute address in IRD-programm

Display: F92C043E

Fatal system error, System_Error

Cause: Error of system, safety control .

Remedy: Inform after-sales service.

3.10.74 F92C0456, Fatal error: In PKT file

Display: F92C0456

Fatal system error, System_Error

Cause: Unexpected management data in PNT-file.

Remedy: Determine origin of pnt-file. Send file to after-sales service, if necessary.
Inform after-sales service.

3.10.75 F92C0ED8, Fatal file administration error: File not open

Display: F92C0ED8

Fatal system error, System_Error

Cause: File administration error:

Access to a closed file.

Remedy: Inform after-sales service.

3.10.76 F92C0ED9, Fatal file administration error: File not open

Display: F92C0ED9

Fatal system error, System_Error

Cause: File administration error:

Access to a closed file.

Remedy: Inform after-sales service.

3.10.77 F92C0EDA, Fatal file administration error: File not open

Display: F92C0EDA

Fatal system error, System_Error

Cause: File administration error:

Access to a closed file.

Remedy: Inform after-sales service.

3.10.78 F92C0EDB, Fatal file administration error: File not open

Display: F92C0EDB

Fatal system error, System_Error

Cause: File administration error:

Access to a closed file.

Remedy: Inform after-sales service.

3.10.79 F92C0EDC, Fatal file administration error: File not open

Display: F92C0EDC

Fatal system error, System_Error

Cause: File administration error:

Access to a closed file.

Remedy: Inform after-sales service.

MLC_TABLE Diagnostics

3.10.80 F92C0EDD, Fatal file administration error: File not open

Display: F92C0EDD

Fatal system error, System_Error

Cause: File administration error:
Access to a closed file.

Remedy: Inform after-sales service.

3.10.81 F92C0EDE, Fatal file administration error: File not open

Display: F92C0EDE

Fatal system error, System_Error

Cause: File administration error:
Access to a closed file.

Remedy: Inform after-sales service.

3.10.82 F92C0EDF, Fatal file administration error: File not open

Display: F92C0EDF

Fatal system error, System_Error

Cause: File administration error:
Access to a closed file.

Remedy: Inform after-sales service.

3.10.83 F92C0EE0, Fatal file administration error: File compressinig

Display: F92C0EE0

Fatal system error, System_Error

Cause: File administration error:
Error in file compressing.

Remedy: Inform after-sales service.

3.10.84 F92C0EE1, Fatal file administration error: Search file

Display: F92C0EE1

Fatal system error, System_Error

Cause: File administration error:
Error in searching a file.

Remedy: Inform after-sales service.

3.10.85 F92C0EE2, Fatal file administration error: Wrong file attribute

Display: F92C0EE2

Fatal system error, System_Error

Cause: File administration error:
File has an invalid attribute.

Remedy: Inform after-sales service.

3.10.86 F92C0EE3, Fatal file administration error: Illegal block

Display: F92C0EE3

Fatal system error, System_Error

Cause: File administration error:
The file management has an invalid data block.

Remedy: Inform after-sales service.

3.10.87 F92C0EE4, Fatal file administration error: File search

Display: F92C0EE4

Fatal system error, System_Error

Cause: File administration error:
Error in searching a file.

Remedy: Inform after-sales service.

3.10.88 F92C0EE5, Fatal file administration error: File open

Display: F92C0EE5 Fatal system error, System_Error

Cause: File administration error:
Error in opening a file.

Remedy: Inform after-sales service.

3.10.89 F92C0EE6, Fatal file administration error: File search

Display: F92C0EE6 Fatal system error, System_Error

Cause: File administration error:
Error in searching a file.

Remedy: Inform after-sales service.

3.10.90 F92C0EE7, Fatal file administration error: File read

Display: F92C0EE7 Fatal system error, System_Error

Cause: File administration error:
Error in reading a file.

Remedy: Inform after-sales service.

3.10.91 F92C0EE8, Fatal file administration error: File open

Display: F92C0EE8 Fatal system error, System_Error

Cause: File administration error:
Error in opening a file.

Remedy: Inform after-sales service.

3.10.92 F92C0EE9, Fatal file administration error

Display: F92C0EE9 Fatal system error, System_Error

Cause: File administration error:

Remedy: Inform after-sales service:

3.10.93 F9301000, Error while loading the PLS-Firmware

Display: F9301000 Fatal system error, Device_Error

The programmable limit switch firmware could not be loaded on the PLS-Module (CFL01.1-N1).

Cause:

- Defective PLS-Module attached.
- Not supported PLS-Module attached.

Remedy: Remove the PLS-Module at the MLC.

3.10.94 F93C0001, Exception at parsing of XML configuration

Display: F93C0001 Fatal system error, System_Error

The parsing of the XML configuration was ended with an unrecoverable exception error.

Cause: The XML configuration file is loaded and parsed while the control is starting up. An unrecoverable exception error has occurred here.

Solution: The correct functioning of the control cannot be guaranteed. Contact the Service department for replacement of firmware, i.e. replacement of the CF.

4 sercos Error Diagnostics

4.1 General Information on sercos Errors

This chapter includes the errors of the ERROR_TABLE "SERCOS_TABLE".

The errors are evaluated as errors of category "F0" - errors without error reaction.

The uniform group number, identifier for sercos errors is "2D"; the known 4-digit sercos error number follows (the sercos error message).

4.2 F02D0000, sercos: No error in the service channel

Display: F02D0000

Non-fatal error, Access_Error

Original sercos error...

4.3 F02D0001, sercos: Service channel not open

Display: F02D0001

Non-fatal error, Access_Error

Original sercos error...

4.4 F02D0003, Max. count of parallel parameter requests exceeded

Display: F02D0003

Non-fatal error, INPUT_RANGE_ERROR

Parameter data queries exceed maximum possible parallel number.

Remedy: Reduce simultaneous parameter queries or start reading/writing of parameters sequentially.

4.5 F02D0007, Parameter access to remote control not allowed

Display: F02D0007

Non-fatal error, Input_Invalid_Error

Parameter access to a remote control is not allowed. The parameter C-0-0211 is without any function.

4.6 F02D0009, sercos: Invalid access to closing the service channel

Display: F02D0009

Non-fatal error, Access_Error

Original sercos error...

4.7 F02D00A0, sercos: Parameter service channel is not open

Display: F02D00A0

Non-fatal error, Access_Error

The service channel is not available during the phase switching (sercos phase 0 / 1).

Cause: During the phase switching (sercos phase 0 / 1), it is tried to write or to read on the drive parameters by means of the parameter function blocks.

Remedy: The C parameter "C-0-0452, Motion, current mode" shows the phase that allows a correct reading of the drive parameters.

sercos Error Diagnostics

4.8 F02D00B0, sercos: Parameter element does not exist

Display: F02D00B0

Non-fatal error, Access_Error

The selected parameter element is not available.

Cause: No valid parameter element was selected. A maximum of 7 parameter elements are available .

Parameters - Elements

Element 1	Identification number	Mandatory
Element 2	Name	Optional
Element 3	Attribute	Mandatory
Element 4	Unit	Optional
Element 5	Minimum input value	Optional
Element 6	Maximum input value	Optional
Element 7	Operating date	Mandatory

Fig.4-1: Table for parameters - Elements

Remedy: A valid element is to be chosen for the selected parameter.

4.9 F02D00C0, sercos: Selected drive does not exist

Display: F02D00C0

Non-fatal error, Access_Error

There is an invalid drive number on the parameter function block.

Cause: A drive that is not configured is accessed using a parameter function block.

Remedy: Configure the drive additionally or set a valid drive number on the function block.

4.10 F02D1001, sercos: No IDN

Display: F02D1001

Non-fatal error, Access_Error

An error occurs if

- a parameter that does not exist is accessed or
- drive parameters are read by the PLC before the sercos bus runs.

After switching on the XLC/MLC, it takes for example some seconds for the sercos bus to start up in P2, but the PLC program is already running and tries to read the S-parameters or P-parameters. The error described above is now output.

For more information on this error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#).

4.11 F02D1009, sercos: Invalid access to element 1

Display: F02D1009

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#).

4.12 F02D2001, sercos: No name

Display: F02D2001

Non-fatal error, Access_Error

sercos Error Diagnostics

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.13 F02D2002, sercos: Name transmission too short

Display: F02D2002

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.14 F02D2003, sercos: Name transmission too long

Display: F02D2003

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.15 F02D2004, sercos: Name cannot be changed (read only)

Display: F02D2004

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.16 F02D2005, sercos: Name is write-protected at this time

Display: F02D2005

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.17 F02D3002, sercos: Attribute transmission too short

Display: F02D3002

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.18 F02D3003, sercos: Attribute transmission too long

Display: F02D3003

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.19 F02D3004, sercos: Attribute cannot be changed (read only)

Display: F02D3004

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.20 F02D3005, sercos: Attribute is write-protected at this time

Display: F02D3005

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.21 F02D4001, sercos: No units

Display: F02D4001

Non-fatal error, Access_Error

sercos Error Diagnostics

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.22 F02D4002, sercos: Unit transmission too short

Display: F02D4002

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.23 F02D4003, sercos: Unit transmission too long

Display: F02D4003

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.24 F02D4004, sercos: Unit cannot be changed (read only)

Display: F02D4004

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.25 F02D4005, sercos: Unit is write-protected at this time

Display: F02D4005

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.26 F02D5001, sercos: No minimum input value

Display: F02D5001

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.27 F02D5002, sercos: Min. input value transmission too short

Display: F02D5002

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.28 F02D5003, sercos: Min. input value transmission too long

Display: F02D5003

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.29 F02D5004, sercos: Min. input value cannot be changed (read only)

Display: F02D5004

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.30 F02D5005, sercos: Min. input value is write-protected at this time

Display: F02D5005

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.31 F02D6001, sercos: No maximum input value

Display: F02D6001

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.32 F02D6002, sercos: Max. input value transmission too short

Display: F02D6002

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.33 F02D6003, sercos: Max. input value transmission too long

Display: F02D6003

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.34 F02D6004, sercos: Max. input value cannot be changed (read only)

Display: F02D6004

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.35 F02D6005, sercos: Max. input value is write-protected at this time

Display: F02D6005

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.36 F02D7001, sercos: No operation data

Display: F02D7001

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.37 F02D7002, sercos: Operation data transmission too short

Display: F02D7002

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

sercos Error Diagnostics

4.38 F02D7003, sercos: Operation data transmission too long

Display: F02D7003

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.39 F02D7004, sercos: Operation data cannot be changed (read only)

Display: F02D7004

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.40 F02D7005, sercos: Operation data is write-protected at this time

Display: F02D7005

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.41 F02D7006, sercos: Operation data is smaller than the min input value

Display: F02D7006

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.42 F02D7007, sercos: Operation data is greater than the max input value

Display: F02D7007

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.43 F02D7008, sercos: Invalid operation data

Display: F02D7008

Non-fatal error, Access_Error

The configured ID number is not supported; invalid bit number or bit combination

For more information on this error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.44 F02D7009, sercos: Operation data write-protected by a password

Display: F02D7009

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

- 4.45 F02D700A, sercos: Operation data is write-protected (cycl. conf)**
- Display: F02D700A Non-fatal error, Access_Error
- For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.
- 4.46 F02D700B, sercos: Invalid indirect addr., (data container, list)**
- Display: F02D700B Non-fatal error, Access_Error
- For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.
- 4.47 F02D700C, sercos: Operation data is write-protected (other settings)**
- Display: F02D700C Non-fatal error, Access_Error
- For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.
- 4.48 F02D700D, sercos: Invalid floating point number**
- Display: F02D700D Non-fatal error, Access_Error
- For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.
- 4.49 F02D700E, sercos: Reserved**
- Display: F02D700E Non-fatal error, Access_Error
- Reserved
- 4.50 F02D700F, sercos: Reserved**
- Display: F02D700F Non-fatal error, Access_Error
- Reserved
- 4.51 F02D7010, sercos: Procedure command already active**
- Display: F02D7010 Non-fatal error, Access_Error
- For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.
- 4.52 F02D7011, sercos: Procedure command not interruptible**
- Display: F02D7011 Non-fatal error, Access_Error
- For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

sercos Error Diagnostics

4.53 F02D7012, sercos: Procedure command at this time not executable

Display: F02D7012

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.54 F02D7013, sercos: Procedure command not executable

Display: F02D7013

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.55 F02D710C, sercos: Data exceed maximal range

Display: F02D710C

Non-fatal error, Access_Error

For more information on the sercos error message, refer to the "Text" column in the [error/diagnostic memory of the control, page 45](#),.

4.56 F02D8001, sercos: Access temporary not possible

Display: F02D8001

Non-fatal error, Access_Error

Original sercos error...

4.57 F02D8096, sercos: Device deactivated

Display: F02D8096

Non-fatal error, Access_Error

An error occurs if

- a parameter is accessed and the respective device with the parameter is deactivated.

Real axis 1 is for example "deactivated" (A-0-0024, Axis state = 2) or "active with command value calculation, drive is deactivated" (A-0-0024, Axis state = 6) and if the parameter S-0-0001.0.0 should be read from the drive, the error described above is output.

4.58 F02D8097, sercos: Device does not exist

Display: F02D8097

Non-fatal error, INPUT_RANGE_ERROR

An error occurs if

- a parameter is accessed and the respective device with the parameter is not configured.

If axis 1 is not configured for example and if the parameter A-0-0001 is read from this axis, the error described above is output.

5 Service and Support

Our worldwide service network provides an optimized and efficient support. Our experts offer you advice and assistance should you have any queries. You can contact us **24/7**.

Service Germany

Our technology-oriented Competence Center in Lohr, Germany, is responsible for all your service-related queries for electric drive and controls.

Contact the **Service Helpdesk & Hotline** under:

Phone: **+49 9352 40 5060**
Fax: **+49 9352 18 4941**
E-mail: service.svc@boschrexroth.de
Internet: <http://www.boschrexroth.com>

Additional information on service, repair (e.g. delivery addresses) and training can be found on our internet sites.

Service worldwide

Outside Germany, please contact your local service office first. For hotline numbers, refer to the sales office addresses on the internet.

Preparing information

To be able to help you more quickly and efficiently, please have the following information ready:

- Detailed description of malfunction and circumstances resulting in the malfunction
- Type plate name of the affected products, in particular type codes and serial numbers
- Your contact data (phone and fax number as well as your email address)

Index

A

A00B0005, Drive message.....	56
A00B0007, sercos driver: ZeroBit, Test mode, Zero bit stream.....	56
A00B0008, sercos driver: LightOn, Test mode, Continuous light on.....	56
A00B0009, sercos driver: LightOff, Test mode, Continuous light off.....	56
A00B0020, Hardware initialization, don't switch off the control.....	56
A00B0161, Set point transfer error.....	56
A00C0001, BOOT END, boot up of control finished.....	57
A00C0002, ErrClear, error cleared.....	57
A00C0003, BOOTWAIT, startup delay active.....	57
A00D0001, Warning.....	57
A00D0002, Info.....	57
A00D0010, PLC user task watchdog expired.....	57
A00D0011, Hardware watchdog expired.....	57
A00D0012, Bus error.....	57
A00D0013, Checksum error.....	58
A00D0014, Field bus error.....	58
A00D0015, Error while I/O update.....	58
A00D0016, Cycletime exceeded.....	58
A00D0017, Not enough memory.....	58
A00D0018, Online change not possible.....	58
A00D0019, Not enough memory.....	59
A00D001A, Boot project not loaded, retain variables not relocatable.....	59
A00D001B, Boot project not loaded and deleted	59
A00D001C, System memory very low (memory leak).....	59
A00D001D, Retain memory corrupt or cannot be mapped.....	59
A00D001E, Boot project that could be loaded but caused a crash later.....	59
A00D001F, Not enough memory for target visu.	59
A00D0020, Not enough memory for configuration.....	59
A00D0021, Target ID (bootproject) doesn't match the current target.....	59
A00D0022, Error at scheduling tasks.....	60
A00D0023, Checksum error at transfer of file.....	60
A00D0024, Retain identity does not match to bootproject identity.....	60
A00D0025, Task could not be created.....	60
A00D0026, Task could not be stopped.....	60
A00D0050, Illegal instruction.....	60
A00D0051, Access violation.....	60
A00D0052, Privileged instruction.....	60
A00D0053, Page fault.....	61
A00D0054, Stack overflow.....	61
A00D0055, Invalid disposition.....	61
A00D0056, Invalid handle.....	61
A00D0057, Access on guarded page.....	61

A

A00D0058, Double fault.....	61
A00D0059, Invalid Opcode.....	61
A00D0100, Access on odd address.....	61
A00D0101, Array bounds exceeded.....	62
A00D0102, Division by zero.....	62
A00D0103, Overflow.....	62
A00D0104, Non continuable exception.....	62
A00D0150, FPU, Unspecified error.....	62
A00D0151, FPU, Denormal operand.....	62
A00D0152, FPU, Division by zero.....	62
A00D0153, FPU, Inexact result.....	63
A00D0154, FPU, Invalid operation.....	63
A00D0155, FPU, Overflow.....	63
A00D0156, FPU, Stack check failed.....	63
A00D0157, FPU, Underflow.....	63
A00D0158, Specific diagnosis of node.....	63
A00D07D0, Fatal error: Communication.....	63
A00D07D1, Fatal error: Semaphores.....	63
A00D07D2, Fatal error: Memory management...	63
A00D07D3, Rexroth-Inline configuration mismatch from node.....	64
A00D07D4, File not written ().....	64
A00D07E3, PLC can not be started with pending error - RESET.....	64
A00D07E4, Array lower bounds violation - RESET.....	64
A00D07E5, Array upper bounds violation - RESET.....	65
A00D07E6, Division (8bit) by zero - RESET.....	65
A00D07E7, Division (16bit) by zero - RESET.....	65
A00D07E8, Division (32bit) by zero - RESET.....	66
A00D07E9, Division (REAL) by zero - RESET...	66
A00D07EA, Lower range bounds (unsigned) violation - RESET.....	66
A00D07EB, Upper range bounds (unsigned) violation - RESET.....	67
A00D07EC, Lower range bounds (signed) violation - RESET.....	67
A00D07ED, Upper range bounds (signed) violation - RESET.....	67
A00D07EE, Division (LREAL) by zero - RESET.	68
A00D07EF, Invalid pointer access (address) - RESET.....	68
A00D07F0, Invalid pointer access (area) - RESET.....	68
A00D07F1, Invalid pointer access (Write access on input) - RESET.....	69
A00D07F2, Invalid pointer access (Alignment) - RESET.....	69
A00D07F7, PLC can not be started with pending error - RESET.....	69
A00D07F8, Array lower bounds violation - Index modified to MIN!.....	70

Index

A

A00D07F9, Array upper bounds violation - Index modified to MAX!.....	70
A00D07FA, Division (8bit) by zero - Divisor modified to 1!.....	70
A00D07FB, Division (16bit) by zero - Divisor modified to 1!.....	71
A00D07FC, Division (32bit) by zero - Divisor modified to 1!.....	71
A00D07FD, Division (REAL) by zero - Divisor modified to 1.0!.....	71
A00D07FE, Lower range bounds (unsigned) violation - Value to MIN!.....	72
A00D07FF, Upper range bounds (unsigned) violation - Value to MAX!.....	72
A00D0800, Lower range bounds (signed) violation - Value to MIN!.....	72
A00D0801, Upper range bounds (signed) violation - Value to MAX!.....	73
A00D0802, Division (LREAL) by zero - Divisor modified to 1.0!.....	73
A00D0803, Invalid pointer access (address) - Pointer to dummy!.....	73
A00D0804, Invalid pointer access (area) - Pointer to dummy!.....	74
A00D0805, Invalid pointer access (write on input)- Pointer to dummy!.....	74
A00D0806, Invalid pointer access (alignment) - Pointer to dummy!.....	74
A00D0807, Identification PROFINET device.....	75
A00D1200, WriteParameter, data type not supported by POU.....	75
A00D1201, WriteParameter, data type not supported by POU.....	75
A00D1202, WriteParameter, data type not supported by POU.....	76
A00D1203, WriteParameter, data type not supported by POU.....	76
A00D1204, WriteParameter, data type not supported by POU.....	76
A00D2EE4, Module error Inline bus goes.....	77
A00E0001, No entry found in data base.....	77
A00E0002, OK.....	77
A0110001, Axis has been removed.....	77
A0110002, Axis has been created.....	77
A0200001, P0 STOP, reached phase 0, PLC in stop.....	77
A0200002, P1 STOP, reached phase 1, PLC in stop.....	77
A0200003, P2 STOP, reached phase 2, PLC in stop.....	77
A0200004, P3 STOP, reached phase 3, PLC in stop.....	78
A0200005, BB STOP, Motion ready, PLC in stop.....	78
A0200006, P0 RUN, reached phase 0, PLC in run.....	78

A

A0200007, P1 RUN, reached phase 1, PLC in run.....	78
A0200008, P2 RUN, reached phase 2, PLC in run.....	78
A0200009, P3 RUN, reached phase 3, PLC in run.....	78
A0200010, BB RUN, Motion ready, PLC in run. .	79
A0200011, P0 INIT, reached phase 0, PLC in init.....	79
A0200012, P1 INIT, reached phase 1, PLC in init.....	79
A0200013, P2 INIT, reached phase 2, PLC in init.....	79
A0200014, P3 INIT, reached phase 3, PLC in init.....	79
A0200015, BB INIT, Motion ready, PLC in init....	80
A0200016, Firmware download successfully finished.....	80
A0200017, Hardware changed; Restoring NVRAM.....	80
A0200018, Restoring NVRAM.....	80
A0200020, Power cycle of control necessary.....	80
A0200021, P0 RDY, reached phase 0, PLC in ready.....	81
A0200022, P1 RDY, reached phase 1, PLC in ready.....	81
A0200023, P2 RDY, reached phase 2, PLC in ready.....	81
A0200024, P3 RDY, reached phase 3, PLC in ready.....	81
A0200025, BB RDY, Motion ready, PLC in ready.....	81
A0200026, Time write-protected because LINK slave.....	82
A0200027, Finishing download, don't switch off the control.....	82
A0200028, PLC runtime incompatible, application invalid.....	82
A0200030, INIT, PLC in init.....	82
A0200031, RDY, PLC in ready.....	82
A0200032, STOP, PLC in stop.....	82
A0200033, RUN, PLC in run.....	83
A0290001, Kinematics has been removed.....	83
A0290002, Kinematics has been created.....	83
A03A0002, Online change.....	83
A03A3001, Messages from DCC-Components. .	83
About this documentation.....	35
Information representation	40
Validity of the documentation	35
Additional information.....	45
Application phases.....	35
Axis error.....	44
Axis group error.....	43

B

BSP_ERR.....	55

C

C0280101, C2C-C0100: incomplete/invalid parameter set.....	104
C0280102, C2C-C0100: communication parameter limit exceeded.....	105
C0280108, C2C-C0100: invalid timing parameter (cycle time).....	105
C0280109, C2C-C0100: invalid offset in Hot-Plug field (MDT address).....	105
C0280113, C2C-C0100: invalid ratio of cycle times (motion/sercos).....	106
C0280171, C2C-C0100: maximum length for connections exceeded.....	106
C0280172, C2C-C0100: no delay measuring executed (S-0-1024).....	106
C0280173, C2C-C0100: maximum number of connections exceeded.....	107
Command error message.....	51
Control error.....	44
Control startup disturbed.....	55

D

Diagnostic numbers and texts	
IndraControl L25/L45/L65 display	44
Diagnostics for PLCopen function blocks.....	47
Diagnostics for the display of the IndraMotion MLC.....	44
Diagnostics - Structure of an XLC/MLC diagnostics.....	43
Display of an IndraMotion MLC L25/L45/L65.....	44
Documentation structure.....	35
Drive error.....	48
Drive warning.....	49

E

E000****	83
E000****, Drive warning with warning number E****	83
E00B0001, ASIC Error.....	83
E00B0005, Drive warning.....	83
E00C0001, Parameter inconsistent, restore via C-0-1001.....	84
E00C0002, Running on unsupported hardware..	84
E00C0003, Running on unsupported hardware revision.....	84
E00C0004, Running on unsupported hardware revision.....	84
E00D0004, Acyclic communication active yet... ..	85
E00D1001, Writeaccess to parameter S-0-0000 of UserCmdDataX.....	85
E00D1002, Unknown PLC system task.....	85
E00D2EE0, Nonconforming Inline IO Configuration.....	85
E00E0026, Version conflict in error logbook, logbook deleted!.....	85

E

E00E0050, Logbook is inconsistent. Faulty entries deleted.....	86
E0110001, Axis in 'PowerOn'.....	86
E0110002, Axis not in 'StandStill'.....	86
E0110029, Positive travel limit exceeded.....	86
E0110030, Negative travel limit exceeded.....	87
E0110050, Axis position is extrapolated.....	87
E0110100, Control axis in warning.....	88
E0110101, Control axis, command in PLC-Stop or breakpoint refused.....	88
E0112039, Maximum acceleration exceeded.....	88
E0112047, Velocity of interpolation = 0.....	88
E0112048, Acceleration of interpolation = 0.....	88
E0112049, Positioning velocity greater than limit (A-0-0032/ 33).....	88
E0112055, Feedrate Override A-0-0240=0.....	89
E0112063, Commanded velocity greater than Limit (A-0-0032/ 33).....	89
E0113001, Maximum jerk exceeded.....	89
E0113002, Velocity too high for cycletime.....	89
E0113003, Dynamic jerk adjust active.....	90
E0170001, Configured master axis is parking....	90
E0180005, Warning: Motion kernel exceeded control cycle time.....	90
E0200000, Usable memory (RAM) near minimum.....	91
E0200001, Usable memory (CF) near minimum	91
E0200002, Temperature warning.....	92
E0200003, CPU-Load critical.....	92
E0200004, Usable memory (USR) near minimum.....	93
E0200005, Usable memory (SYS) near minimum.....	93
E0200006, Usable memory (OEM) near minimum.....	93
E0200007, Battery of SRAM module low.....	94
E0200009, Modified functionality of sercos FMs, reboot is necessary.....	94
E0200010, Modif. nr of com. sercos FMs, reboot may be necessary.....	95
E0200011, Invalid commanded config. of drive ring via sercos FM.....	96
E0200012, Invalid commanded config. of link ring via sercos FM.....	96
E0200013, Error in SYS-partition, check done... ..	96
E0200014, Error in OEM-partition, check done. .	97
E0200015, Error in USR-partition, check done... ..	97
E0200016, Rem. memory (NVRAM) near min. - reboot may be necessary.....	97
E02C00B7, Velocity of the axis too high.....	98
E02C00B8, Velocity of the axis too high.....	98
E02C0184, Vector assignment with different components.....	98
E02C085E, SRAM batterie low.....	98
E02C0880, Axis deactivated.....	99
E02C08CF, Resulting path velocity too high.....	99

Index

E

E02C08D2, Resulting path velocity too high.....	99
E02C08D3, Resulting path velocity too high.....	99
E02C08D4, Resulting path velocity too high.....	99
E02C08D5, Resulting path velocity too high.....	99
E02C08D6, Resulting path velocity too high.....	100
E02C08D7, Resulting path velocity too high.....	100
E02C08DF, No name specified with call of SET_RK_SYSTEM.....	100
E02C0900, Blending error: Interpolator.....	100
E02C0901, Blending error: Lead distance of the spline too high.....	100
E02C0902, Blending error: Deceleration dis- tance too short.....	101
E02C0903, Blending error: Radius too small....	101
E02C0904, Blending error: Lead distance of the spline exceeded.....	101
E02C0905, Blending error: Point invalid.....	101
E02C0906, Blending error: Parameter length of the spline invalid.....	101
E02C0907, Blending error: Spline function invalid.....	101
E02C0908, Blending error: Arc length of the spline invalid.....	101
E02C0909, Blending error: Inverse path length function invalid.....	102
E02C090A, Blending error: Spline interpolator.	102
E02C090B, Blending error: Spline invalid.....	102
E02C090C, Blending error: Shorten path at the end.....	102
E02C090D, Blending error: Shorten path at the beginning.....	102
E02C090E, Blending error: Calc.of the de- celeration distance incorrect.....	102
E0350154, RCL Compiler: Character not read.	102
E0350175, RCL Compiler: Symbols will be ignored up to end of file.....	103
E0350176, RCL Compiler: Symbols up to end of file will be ignored.....	103
E0350187, RCL Compiler: Only EXTERN and GLOBAL permitted.....	103
E035021C, RCL Compiler: No defined varia- ble as BINARY declared.....	103
E035021D, RCL Compiler: No defined varia- ble as CHAR declared.....	103
E0350236, RCL Compiler: Implicit point defi- nition.....	103
E0350246, RCL Compiler: Illegal alignment....	103
E0370001, System overloaded.....	103
E039****, ...	104
E039****, PLC warnings from the 3S kernel....	104
E03A****, ...	104
E03A****, PLC warnings from company components.....	104
E03C0001, Check of integrity of XML config- uration failed.....	104
ErrArch.....	55

E

ErrBSP.....	55
ErrFMCfg.....	55
ErrHwChg.....	55
ERROR_IP.....	55
Error/Diagnostics memory	
Additional information	45
Error/Diagnostics Memory.....	45
Error message	
Command	51
HydraulicDrive	48
IndraDrive	48
PLC function blocks instances	45
sercos	51
SercosDrive	50
Virtual axis	50
Error reaction.....	43

F

F0020001.....	107
F0020002.....	107
F0020003.....	107
F0020004.....	107
F0020005.....	107
F0020006.....	107
F0020007.....	107
F0020008.....	107
F0020009.....	107
F0020010.....	107
F0020011.....	107
F0020012.....	107
F0020013.....	107
F0020014.....	107
F0020015.....	107
F0020016.....	107
F0020017.....	107
F0020018.....	107
F0020019.....	107
F0020020.....	107
F0020021.....	107
F0020022.....	107
F0030001.....	107
F0030002.....	107
F0030003.....	107
F0040001.....	107
F0040002.....	107
F0040003.....	107
F0040004.....	107
F0040005.....	107
F0040006.....	107
F0040007.....	107
F0040008.....	107
F0040009.....	107
F0040010.....	107
F0040011.....	107
F0040012.....	107
F0040013.....	107

F

F0040014.....	107
F0050001.....	107
F0050002.....	107
F0050003.....	107
F0050004.....	107
F0050005.....	107
F0050006.....	107
F0050007.....	107
F0050008.....	107
F0050009.....	107
F0050010.....	107
F0050011.....	107
F0050012.....	107
F0050013.....	107
F0070001, Size of parameter changed.....	107
F00A0001, Parameter write-error during im- port, see C-0-0114.....	107
F00A0002, Import/Export: File could not be opened.....	108
F00A0003, Import/Export: Unknown param- eter type.....	108
F00A0004, Import: Length of line in import file exceeds maximum.....	108
F00A0005, Import/Export: Unsupported sercos parameter format.....	108
F00B0003, sercos bus not closed.....	108
F00B0006, Progression to phase 3 not pos- sible.....	109
F00B0007, Progression to state ready not possible.....	109
F00B0008, Drive not found.....	109
F00B0009, Maximum number of axes ex- ceeded.....	110
F00B0013, MC cycletime too less.....	110
F00B0014, Parameter write-protected by password.....	110
F00B0090, RTOS error (Real Time Ope- rating System).....	110
F00B0098, Cannot write on parameter S-0-0015.....	110
F00B0099, Cannot write on parameter S-0-0016.....	110
F00B0100, Cannot write on parameter S-0-0024.....	110
F00B0101, Cannot write on parameter S-0-0007.....	111
F00B0102, Cannot read time slot parameter....	111
F00B0103, Cannot read time slot parameter....	111
F00B0104, Cannot write on time slot param- eter.....	111
F00B0105, Cannot write on time slot param- eter.....	112
F00B0121, sercos: IO Error.....	112
F00B0130, sercos III: Connection configura- tion not read/writeable.....	112

F

F00B0131, sercos III: Parameter for configu- ration not writeable.....	113
F00B0132, sercos III: Communication capa- bilities not readable.....	114
F00B0133, sercos III: Error in transfer of configuration.....	114
F00B0134, sercos III: Connection configura- tion error.....	114
F00B0135, sercos III: Error in phaseswitch to CP1.....	114
F00B0136, sercos III: Error in phaseswitch to CP1.....	114
F00B0137, sercos III: Max. number of MDT- Data exceeded.....	115
F00B0138, sercos III: Max. number of AT- Data exceeded.....	115
F00B0139, sercos III: Cycletime exceeded.....	115
F00B0140, sercos III: Length of connection inconsistent.....	115
F00B0141, sercos III: Length of connection greater than max.....	115
F00B0142, sercos III: Cycletime of connec- tion inconsistent.....	116
F00B0143, sercos III: Connection Number not unique.....	116
F00B0144, sercos III: Error in type of config- uration.....	116
F00B0145, sercos III: Max. number of con- nections exceeded.....	116
F00B0146, sercos III: Wrong number of con- nections.....	116
F00B0147, sercos III: SCP classification error.	117
F00B0148, sercos III: Error in procedure command S-0-0128.....	117
F00B0149, sercos III: Error in procedure command S-0-0127.....	117
F00B0150, sercos III: Bus not stable.....	117
F00B0151, sercos Address not valid.....	117
F00B0152, sercos Addresses inconsistent.....	117
F00B0153, sercos III: Error in phaseswitch to CP2.....	118
F00B0154, sercos III: Error in phaseswitch to CP2.....	118
F00B0155, sercos III: Error in phaseswitch to CP3.....	118
F00B0156, sercos III: Error in phaseswitch to CP3.....	118
F00B0157, sercos III: Error in phaseswitch to CP4.....	119
F00B0158, sercos III: Error in phaseswitch to CP4.....	119
F00B0159, Error in transfer of configuration....	119
F00B0160, Error in transfer of configuration....	119
F00B0164, Control timing error (T4).....	119
F00B0165, Drive error.....	120

Index

F

F00B0166, sercos III: Insufficient FPGA-TxRam.....	120
F00B0167, sercos III: Insufficient FPGA-RxRam.....	120
F00B0168, sercos III: Bus configuration inconsistent.....	120
F00B0169, sercos III: Data format in C-0-0520 not valid.....	121
F00B016A, sercos III: Invalid sercos address...	121
F00B016B, sercos III: Connection number already used.....	121
F00B016C, sercos III: Connection instance already used.....	121
F00B016D, sercos III: Connection instance not valid.....	121
F00B016E, sercos III: Configuration too large..	122
F00B016F, sercos III: Max. number of connections exceeded.....	122
F00B0170, sercos III: Max. number of real-time bits exceeded.....	122
F00B0171, sercos III: Max. number of IDN for one connection exceeded.....	122
F00B7010, Command already set.....	123
F00C0001, Error while setting module references.....	123
F00C0003, Error in power up delay.....	123
F00C0004, Error while switching to power up target mode.....	123
F00C0005, Error remanent data; data cleared.	123
F00C0006, Error remanent data; restored last backup.....	124
F00C0007, Firmware does not fit hardware.....	125
F00D0002, Axis access error.....	125
F00D0060, Maximum number of PLC applications exceeded.....	125
F00D0300, Output shorted.....	125
F00D0301, Voltage supply dropped.....	126
F00D0302, Watchdog error.....	126
F00D0303, Module removed.....	126
F00D0304, Fault repaired.....	126
F00D0305, Multiple error, fast IOs.....	126
F00D1002, Cyclic position channel already open.....	127
F00D1003, Cyclic force channel already open.	127
F00D1004, Cyclic velocity channel already open.....	127
F00D1005, Cyclic analog channel already open.....	127
F00D100A, Error while reading C-0-0483.....	127
F00D100B, Error while reading C-0-0484.....	127
F00D100C, Error while opening cyclic channel	127
F00D100D, Error while opening cyclic channel	128
F00D1014, No reference for opening cyclic channel available.....	128
F00D1016, Wrong #-address of axis data.....	128
F00D1017, Wrong #-address of axis data.....	128

F

F00D1018, Wrong #-address of axis data.....	128
F00D1019, Error while closing cyclic channel. .	129
F00D1027, Error while closing cyclic channel. .	129
F00D102A, ListParameter requested, Read-Parameter.....	129
F00D1030, Error while closing cyclic channel. .	129
F00D103B, Invalid control number.....	129
F00D103C, Invalid axis number.....	129
F00D1205, Error, cannot handle a single parameter.....	129
F00D1207, Error, data greater 64KBytes.....	130
F00D1210, Error, cannot handle a single parameter.....	130
F00D1211, Error ReadSERCOSDataStatus, no memory available.....	130
F00D1218, Error, no memory available.....	130
F00D1219, Error, cannot handle a single parameter.....	130
F00D1220, Unsupported selection of sercos element.....	130
F00D1221, Timeout on parameter access.....	131
F00D1222, Too many data to transmit.....	131
F00D1224, Error, no memory available.....	131
F00D1225, Error, cannot handle a single parameter.....	131
F00D1227, Error while writing date.....	132
F00D1230, Error ReadSERCOSAttribute, no memory available.....	132
F00D2001, Access error, axis 1.....	132
F00D2002, Access error, axis 2.....	132
F00D2003, Access error, axis 3.....	133
F00D2004, Access error, axis 4.....	133
F00D2005, Access error, axis 5.....	133
F00D2006, Access error, axis 6.....	134
F00D2007, Access error, axis 7.....	134
F00D2008, Access error, axis 8.....	134
F00D2009, Access error, axis 9.....	134
F00D200A, Access error, axis 10.....	135
F00D200B, Access error, axis 11.....	135
F00D200C, Access error, axis 12.....	135
F00D200D, Access error, axis 13.....	136
F00D200E, Access error, axis 14.....	136
F00D200F, Access error, axis 15.....	136
F00D2010, Access error, axis 16.....	137
F00D2064, Axis not configured.....	137
F00D2EE1, Fatal error: Inline los.....	137
F00D2EE2, An untreated Inlinebus error has occurred.....	138
F00D2EE3, Reset on Inlinebus occured.....	138
F00D2EE5, Module error Inline bus comes.....	138
F00D2EE7, System at the maximum load.....	139
F00F0001.....	139
F00F0002.....	139
F00F0003.....	139
F00F0004.....	139
F00F0005.....	139

F

F00F0006.....	139
F0110001, No power turned.....	139
F0110010, Error while synchronization of system time of the drive.....	139
F0140001, Error in device configuration.....	140
F0160001.....	140
F0160002.....	140
F0160003, Error while changing to P0.....	140
F0160004, Error while changing to P0.....	140
F0160005, Error while changing to P2.....	141
F0160006, Error while changing to P2.....	141
F0160008, Error while changing to P3.....	141
F0160009, Error while changing to P3.....	141
F0160010, Error while changing to P3.....	142
F0160011, Error during preparation for changing to P2.....	142
F0160012, Error while changing to BB.....	142
F0160013, Error while changing to BB.....	142
F0160014, Error while changing to BB.....	142
F0160015.....	143
F0160016.....	143
F0160017.....	143
F0160018.....	143
F0160019.....	143
F0160020.....	143
F0160021.....	143
F0160022.....	143
F0160023.....	143
F0160024, Error in cross-check C-parameters.....	143
F0160025, Error in cross-check A-parameters.....	143
F0160026.....	143
F0160027.....	143
F0160028.....	143
F0160029.....	143
F0160032, Error while changing to P2.....	143
F0160033, Error while changing to P2.....	144
F0160034, Error while changing to P3.....	144
F0160035, Error during configuration of link communication.....	144
F0160036, Error during configuration of link communication.....	144
F0160037, Error during configuration of link communication.....	145
F0160038, Unable to deactivate link axes.....	145
F0160040, Error in cross-check K-parameters.....	145
F0180008, Motion kernel exceeded control cycle time.....	146
F0180009, Calculation of actual values ex- ceeded cycle time.....	146
F01B0000, RTOS error (Real Time Ope- rating System).....	147
F01B0001, RTOS error (Real Time Ope- rating System).....	147
F01B0002, RTOS error (Real Time Ope- rating System).....	147

F

F01B0003, RTOS error (Real Time Ope- rating System).....	148
F01B0004, RTOS error (Real Time Ope- rating System).....	148
F01B0005, RTOS error (Real Time Ope- rating System).....	148
F01B0006, RTOS error (Real Time Ope- rating System).....	148
F01B0007, RTOS error (Real Time Ope- rating System).....	149
F01B0008, RTOS error (Real Time Ope- rating System).....	149
F01B0009, RTOS error (Real Time Ope- rating System).....	149
F01B0010, RTOS error (Real Time Ope- rating System).....	149
F01B0011, Error while starting DHCP client.....	149
F01B0012, Error while starting DHCP client.....	149
F01B0013, Error DHCP Client - No lease, default restored.....	150
F01D0001.....	150
F01D0002.....	150
F01D0003.....	150
F01D0004.....	150
F01D0005.....	150
F01D0006.....	150
F01D0007.....	150
F01D0008.....	150
F01D0009.....	150
F01D0010.....	150
F01D0011.....	150
F01D0012.....	150
F01D0013.....	150
F01D0014.....	150
F0200001, Firmware download failed.....	150
F0200002, Firmware download failed.....	150
F0200003, Firmware download failed.....	150
F0200004, Firmware download failed.....	150
F0200005, Firmware download failed.....	151
F0200006, Firmware download failed.....	151
F0200007, Firmware download failed.....	151
F0200008, Firmware download failed.....	151
F0200009, Firmware download failed.....	151
F0200010.....	151
F0200011.....	151
F0200012.....	151
F0200013.....	151
F0200014.....	151
F0200015.....	151
F0200016.....	151
F0200017.....	151
F0200018.....	151
F0200019.....	151
F0200020.....	151
F0200021.....	151
F0200022.....	151

Index

F

F0200024, Firmware download failed.....	151
F0200025, Firmware download failed.....	152
F0200026, Firmware download failed.....	152
F0200027, Firmware download failed.....	152
F0200028, Firmware download failed.....	152
F0200029, Firmware download failed.....	152
F0200030, Error deleting files in SYSTEM partition.....	152
F0200031, Error deleting files in OEM partition	153
F0200032, Error deleting files in USER parti- tion.....	153
F0200033, Storage of remanent data impos- sible.....	153
F0200036, Error initialising the hardware watchdog.....	153
F0200037, Error triggering the hardware watchdog.....	154
F0200038, Firmware download failed.....	154
F0200039, Firmware download failed.....	154
F0200040, Failure of temperature monitor- ing, hardware defect impends.....	154
F0220200, General drive error.....	155
F0220201, Invalid control number.....	155
F0220202, Invalid axis number.....	155
F0220203, Invalid command type.....	155
F0220204, Command not supported by axis....	155
F0220205, Command rejected, no power.....	155
F0220206, Command rejected while 'Stopping'	156
F0220207, Command rejected while 'Homing'.	156
F0220208, Invalid command number.....	156
F0220210, Reset still 'ErrorStop'.....	156
F0220211, Command rejected while 'Di- skrete Motion'.....	157
F0220212, Command rejected while 'Contin- uous Motion'.....	157
F0220213, Command rejected while 'Synchronized Motion'.....	157
F0220214, Command rejected while 'Error- Stop'.....	157
F0220216, No power available.....	158
F0220217, Command rejected while 'Stand- Still' and 'PowerOn'.....	158
F0220218, Command rejected while 'Stand- Still'.....	158
F0220223, Velocity below minimum.....	158
F0220224, Velocity above maximum.....	158
F0220225, Acceleration below minimum.....	159
F0220226, Acceleration above maximum.....	159
F0220227, Deceleration below minimum.....	159
F0220228, Deceleration above maximum.....	159
F0220229, Jerk below minimal.....	160
F0220230, Jerk above maximum.....	160
F0220232, Invalid master control number.....	160
F0220233, Invalid master axis number.....	160
F0220234, Invalid CamTable ID.....	160
F0220263, RatioNumerator below minimum....	161

F

F0220264, RatioNumerator above maximum... 161	161
F0220265, RatioDenominator below minimum. 161	161
F0220266, RatioDenominator above maxi- mum.....	161
F0220267, MasterFineAdjust below minimum. 162	162
F0220268, MasterFineAdjust above maximum. 162	162
F0220269, Invalid SyncMode.....	162
F0220270, Invalid StartMode.....	162
F0220271, Cam distance below minimum value.....	162
F0220272, Cam distance above maximum value.....	163
F0220273, Command rejected while 'Para- meter Mode'.....	163
F0220274, Axis not referenced.....	163
F0220275, Command aborted.....	163
F0220276, Control error.....	163
F0220277, Direct master axis change.....	164
F0220278, Command 'Disabled axis' active....	164
F0220279, Command 'parking axis' active.....	164
F0220280, Command rejected while 'Coordi- nated Motion'.....	164
F0220281, Invalid float data.....	164
F0220282, MotionProfile, SetSelection be- low minimum value.....	165
F0220283, MotionProfile, SetSelection above maximum value.....	165
F0220287, Unreferenced cam table object.....	165
F0220288, ChangeCamTable: above maxi- mum value.....	165
F0220289, ChangeCamTable: below mini- mum value.....	165
F0220290, ChangeCamTable: invalid ID.....	165
F0220291, Unreferenced MotionProfile object. 166	166
F0220292, ChangeMotionProfileSet: Set- Number below minimum value.....	166
F0220293, ChangeMotionProfileSet: Set- Number above maximum value.....	166
F0220294, ChangeMotionProfileSet: Selec- ted profile write-protected.....	166
F0220295, ChangeMotionProfileStep, inva- lid StepNumber.....	166
F0220300, Invalid command channel.....	167
F0220301, Command rejected while 'Con- trolled Motion'.....	167
F0220316, ChangeFlexProfile: Length of FlexProfile lists inconsist.....	167
F0220317, ChangeFlexProfile: No steps in profile.....	169
F0220318, ChangeFlexProfile: Unknown master.....	169
F0220319, ChangeFlexProfile: Motion law unknown.....	169
F0220320, ChangeFlexProfile: Step mode unknown.....	170

F

F0220321, ChangeFlexProfile: Step range 0 or negative.....	170
F0220322, ChangeFlexProfile: Invalid comb. of boundary value types.....	171
F0220323, ChangeFlexProfile: Invalid boundary values.....	171
F0220324, ChangeFlexProfile: Invalid Hub.....	171
F0220325, ChangeFlexProfile: Invalid value for turnaround point disp.....	172
F0220326, ChangeFlexProfile: Invalid slope....	172
F0220327, ChangeFlexProfile: Invalid Cam table.....	173
F0220328, ChangeFlexProfile: Motion law + selected step mode.....	173
F0220329, ChangeFlexProfile: Velocity jump in profile.....	173
F0220330, ChangeFlexProfile: Acceleration jump in profile.....	174
F0220331, ChangeFlexProfile: Jerk jump in profile.....	174
F0220332, ChangeFlexProfile: Velocity limit invalid.....	175
F0220333, ChangeFlexProfile: Acceleration limit invalid.....	175
F0220334, Unreferenced FlexProfile object....	175
F0220335, FlexProfile: Set is write-protected...	176
F0220341, FlexEvent: Set is write-protected....	176
F0220343, ChangeFlexEvent: Length of FlexProfile lists inconsistent.....	176
F0220344, ChangeFlexEvent: Step Number assignment is invalid.....	177
F0220345, ChangeFlexEvent: Trigger-Mode is invalid.....	177
F0220346, ChangeFlexEvent: Action-Mode is invalid.....	177
F0220349, ChangeFlexProfile: Jerk limit invalid.....	178
F0220350, ChangeFlexProfile: Limit too low....	178
F0220355, ChangeFlexProfile: Invalid sequence of Flex-Steps.....	179
F0220360, Command rejected while 'Controlled Motion'.....	179
F0220361, ChangeFlexProfile: Invalid master axis source.....	179
F0220501, Wrong data type.....	180
F0220502, ProbeModule out of range.....	180
F0220503, ProbeInput out of range.....	180
F0220504, ExpectWindowPosEdgeMode out of range.....	180
F0220505, ExpectWindowNegEdgeMode out of range.....	181
F0220506, ExpectWindowPosEdgeStart out of range.....	181
F0220507, ExpectWindowPosEdgeEnd out of range.....	181

F

F0220508, ExpectWindowNegEdgeStart out of range.....	181
F0220509, ExpectWindowNegEdgeEnd out of range.....	181
F0220510, ExpectWindowPosEdgeSetPoint out of range.....	182
F0220511, ExpectWindowNegEdgeSetPoint out of range.....	182
F0220512, MarkerFailureEnable out of range. .	182
F0220513, MaxNumberOfMarkerFailure out of range.....	182
F0220514, Interpolation out of range.....	182
F0220515, TimestampEnable out of range.....	182
F0220516, DeadTimePosEdge out of range....	183
F0220517, DeadTimeNegEdge out of range....	183
F0220518, ProbeData out of range.....	183
F0220519, PositionEvalMode out of range.....	183
F0220520, DiffEvalMode out of range.....	183
F0220521, TOUCHPROBE_REF is not valid or wrong configuration.....	184
F0220522, AXIS_REF is not valid or wrong configuration of axis.....	184
F0220600, Path / file name unknown.....	184
F0220601, Unsupported file system.....	184
F0220602, Input 'StartIdx' has an invalid value	184
F0220603, Invalid state of state machine.....	184
F0220604, Error in file structure.....	184
F0220605, Input 'ArrayDimension' has an invalid value.....	185
F0220606, Point not found.....	185
F0220607, Wrong number of coordinates per point.....	185
F0220608, Wrong number of kinematics.....	185
F0220609, Wrong point type, point in world or joint coordinates.....	185
F0260001, MC_DigitalCamSwitch, Unable to acquire APS reference.....	186
F0260002, MC_DigitalCamSwitch, Unable to open cyclic channel.....	186
F0260003, MC_DigitalCamSwitch, Unable to allocate memory.....	186
F0260004, MC_DigitalCamSwitch, Unable to read parameter.....	186
F0260005, MC_DigitalCamSwitch, Invalid combination of units.....	186
F0260006, MC_DigitalCamSwitch, On-/Off compensation time longer 16s.....	187
F0260007, MC_DigitalCamSwitch, Invalid state of state machine.....	187
F0260010, ML_PIDType01, Low limit is higher than High limit.....	187
F0260011, ML_PIDType01, Invalid state of state machine.....	187
F0260012, ML_PIDType01, Selected controller type not supported.....	187
F0260030, Inputs have invalid values.....	187

Index

F

F0260031, Invalid state of state machine.....	188
F0260032, Calculations resulted in invalid values.....	188
F0260040, Reference to base system not found.....	188
F0260041, Function block could not be instantiated.....	188
F0260042, Function block may not be located in RETAIN data area.....	188
F0260050, ML_CtrlJobConnect, Invalid values of inputs of POU.....	188
F0260051, ML_CtrlJobConnect, Set of command into queue failed.....	189
F0260052, ML_CtrlJobConnect, Reject of inv. command or status error.....	189
F0260053, ML_CtrlJobConnect, Watch dog - time out.....	190
F026005D, ML_CtrlJobConnect, Invalid state of I/O of POU.....	190
F026005E, ML_CtrlJobConnect, Invalid state of state machine of POU.....	190
F026005F, ML_CtrlJobConnect, Error during init of POU instance.....	190
F0260060, ML_ShowJobConnect, Invalid values of inputs of POU.....	191
F0260061, ML_ShowJobConnect, Set of command into queue failed.....	191
F0260062, ML_ShowJobConnect, Reject of inv. command or status error.....	191
F0260063, ML_ShowJobConnect, Watch dog - time out.....	191
F026006E, ML_ShowJobConnect, Invalid state of state machine of POU.....	191
F026006F, ML_ShowJobConnect, Error during init of POU instance.....	191
F0260070, ML_SendJobTlg, Invalid values of inputs of POU.....	191
F0260071, ML_SendJobTlg, Set of command into queue failed.....	191
F0260072, ML_SendJobTlg, Watch dog - time out.....	192
F026007E, ML_SendJobTlg, Invalid state of state machine of POU.....	192
F026007F, ML_SendJobTlg, Error during init of POU instance.....	192
F0260080, ML_RecvJobTlg, Invalid values of inputs of POU.....	192
F0260081, ML_RecvJobTlg, Set of command into queue failed.....	192
F0260082, ML_RecvJobTlg, Watch dog - time out.....	192
F026008E, ML_RecvJobTlg, Invalid state of state machine of POU.....	192
F026008F, ML_RecvJobTlg, Error during init of POU instance.....	192

F

F0260090, ML_SendRecvJobAss, Invalid values of inputs of POU.....	192
F0260091, ML_SendRecvJobAss, Store of recieved job telegram failed.....	193
F0260092, ML_SendRecvJobAss, Watch dog - time out.....	193
F0260095, ML_SendRecvJobAss, Error communication socket (create).....	193
F0260096, ML_SendRecvJobAss, Error communication socket (close).....	193
F0260097, ML_SendRecvJobAss, Error communication socket (ioctl).....	193
F0260098, ML_SendRecvJobAss, Error communication socket (bind).....	193
F0260099, ML_SendRecvJobAss, Error ethernet buffer (recvfrom).....	193
F026009A, ML_SendRecvJobAss, Error ethernet buffer (sendto).....	193
F026009B, ML_SendRecvJobAss, Defrag error of send/ receive buffer.....	194
F026009C, ML_SendRecvJobAss, Error on communication sockets.....	194
F026009D, ML_SendRecvJobAss, Invalid state of I/O of POU.....	194
F026009E, ML_SendRecvJobAss, Invalid state of state machine of POU.....	194
F026009F, ML_SendRecvJobAss, Error during init of POU instance.....	194
F02600A0, ML_DebugJobConnect, Invalid values of inputs of POU.....	194
F02600A1, ML_DebugJobConnect, Set of command into queue failed.....	194
F02600A2, ML_DebugJobConnect, Invalid command / getting status.....	194
F02600A3, ML_DebugJobConnect, Invalid command / getting status.....	195
F02600A4, ML_DebugJobConnect, Watch dog - time out.....	195
F02600AE, ML_DebugJobConnect, Invalid state of state machine of POU.....	195
F02600AF, ML_DebugJobConnect, Error during init of POU instance.....	195
F0280001, Invalid number of CFL01.1 modules (-Q2, -R3).....	195
F0280002, Upload of firmware into des CFL01.1-Q2-FPGA failed.....	195
F0280003, Initialization of the CFL01.1-Q2 module failed.....	196
F0280004, Link ring broken.....	196
F0280005, Link ring: masterposition incorrect MDT.....	197
F0280006, Link ring: masterposition incorrect AT.....	197
F0280007, Link ring: variant cycle time detected.....	197

F

F0280010, Link axis not projectable, C2C is not configured yet.....	197
F0280011, C2C: Connection not applicable, as not configured.....	197
F0280012, C2C: Connection error.....	198
F0280020, Semaphore error while switching C2C phase.....	198
F0280021, Invalid commanded C2C phase.....	198
F0280022, Internal error due to the C2C service channel.....	198
F0280023, Incompatible C2C device found.....	198
F0280024, C2C ring not closed.....	199
F0280025, C2C: Configuration not consistent..	199
F0280027, C2C: Error device not found.....	199
F0280029, C2C: Error switching phase 3.....	200
F0280030, C2C: Error command S-0-0127, P3 transition check.....	200
F0280031, C2C: Error switching phase 4.....	200
F0280034, Invalid configuration of C2C timing.	200
F0280041, C2C: sercos cycle time not possible.....	200
F0280044, Link ring: invalid HW synchronization.....	201
F0280060, C2C master: hot plug slave w/o sercos III-interface (HP0).....	201
F0280061, C2C master: misconfigured hot plug slave (HP0).....	201
F0280062, C2C master: error while scanning the hot plug slaves (HP1).....	202
F0280063, C2C master: HP1 parameters faultily receipted (HP1).....	202
F0280064, C2C master: error running the service channel (HP1).....	202
F0280065, C2C master: hot plug mechanism aborted.....	202
F0280066, C2C master: HotPlug not supported.....	203
F0280067, C2C master: invalid slave address detected (HP1).....	203
F0280068, Ring topology could not be established.....	203
F0280080, C2C slave: hot plug via C2C master impossible (HP0.1).....	204
F0280081, C2C slave: HP0 parameters defective/incomplete (HP0.2).....	204
F0280082, C2C slave: slave address missed in HP control word (HP0.3).....	204
F0280083, C2C slave: HP1 parameters defective/incomplete (HP01.1).....	205
F0280084, C2C slave: error within C2C service channel (HP1.2).....	205
F0280085, C2C slave: faulty scan algorithm within C2C master (HP1.2).....	205
F0280086, C2C slave: error running switch command S-0-0127/8 (HP2).....	206

F

F0280087, C2C slave: hot plug mechanism failed.....	206
F0280100, Lack of memory due to the C2C interface data.....	206
F0280101, Initialization of the C2C hardware failed.....	207
F0280103, Master axis not applicable, defective internal axis table.....	207
F0280104, Old master axis unerasable, defective internal axis table.....	207
F0280105, Setup of the P-/S-Count values via SVCH failed.....	208
F0280106, Enquiry of the P-/S-SynCnt values via SVCH failed.....	208
F0280107, Enquiry of the ring configuration ID via SVCH failed.....	208
F0280109, Generic (configuration) error due to the C2C interface.....	208
F0280161, Set point transfer error.....	209
F0290001, Transformation not valid.....	209
F0290400, General kinematics error.....	209
F0290401, Invalid control number.....	209
F0290402, Invalid kinematics number.....	209
F0290403, Invalid command type.....	209
F0290404, Command not supported by kinematics.....	210
F0290405, Command rejected while 'Stand-Still Incomplete'.....	210
F0290406, Command rejected while 'PM Program Stopping'.....	210
F0290407, Command rejected while 'Stand-Still Complete'.....	210
F0290408, Invalid command number.....	210
F0290409, Command not supported in this state.....	210
F0290410, Reset still 'ErrorStop'.....	210
F0290411, Command rejected while 'PM Program Running'.....	210
F0290412, Error while selecting RCL program.	211
F0290413, Command rejected while 'Parameter Mode'.....	211
F0290414, Command rejected while 'Error-Stop'.....	211
F0290415, Command aborted.....	211
F0290416, Switching to 'StandStill' not possible.....	211
F0290417, RCL process does not exist.....	211
F0290501, Two PLC-MotionCommands per motion cycle not allowed.....	211
F0290502, Command rejected - buffer full.....	211
F0290503, Invalid motion command.....	211
F0290505, Synchronisation to more than one belt not possible.....	211
F02C0066, Axis list in K-0-0008 not completed	212
F02C00B7, Reserved.....	212
F02C0173, Illegal jump instruction.....	212

Index

F

F02C0177, Error in exclusive statement, EX- CLUSIVE_END expected.....	212
F02C017B, Subprogram nesting depth ex- ceeded.....	212
F02C017D, Illegal relational operator.....	212
F02C017F, Belt type expected.....	212
F02C0182, Jump statement not permitted.....	212
F02C0183, Circle with one axis not possible....	212
F02C0202, Programname contains invalid characters.....	212
F02C0203, QLL-file not found.....	213
F02C0204, Error during compilation.....	213
F02C0205, SRAM semaphore defective.....	213
F02C033F, Illegal program name.....	213
F02C0340, Program name too long.....	213
F02C0342, Illegal file name extension.....	213
F02C0489, IOL-on: Time offset too long.....	214
F02C048A, IOL-off: Time offset too long.....	214
F02C048B, PPO: Time offset too long.....	214
F02C048C, IOL-on: Function in use.....	214
F02C048D, IOL-off: Function in use.....	214
F02C048E, PPO: Function in use.....	214
F02C0491, PPO: Velocity greater than max. velocity.....	214
F02C0895, Data transfer error.....	214
F02C0898, Data transfer error.....	214
F02C089C, Data transfer error.....	215
F02C089D, Data transfer error.....	215
F02C08A7, Data transfer error.....	215
F02C08BA, Data transfer error.....	215
F02C08D0, Data transfer error.....	215
F02C0E10, rFkt: invalid length.....	215
F02C0E11, rFkt: Client disconnected (1).....	215
F02C0E12, rFkt: malloc error.....	215
F02C0E13, rFkt: Client disconnected (2).....	215
F02C0E14, rFkt: wrong channel.....	215
F02C0E15, rFkt: READ error.....	216
F02C0E16, rFkt: WRITE error.....	216
F02C0E17, rFkt: CONNECT error.....	216
F02C0E44, Socket error PCL.....	216
F02C0E45, Unknown server PCL.....	216
F02C0E46, No connect PCL.....	216
F02C0E47, Socket error.....	216
F02C0E48, Bind error.....	216
F02C0E49, List error.....	216
F02C0E4A, Accept error.....	216
F02C0E52, Seriell writing is not possible.....	217
F02C0ECE, Shutdown error.....	217
F02C0ECF, Shutdown error.....	217
F02C0F1E, End of file.....	217
F02C0F1F, File opened for write.....	217
F02C0F20, No compressing.....	217
F02C0F21, File does not exist.....	217
F02C0F22, Memory (user) overflow.....	217
F02C0F23, File too many opened.....	217
F02C0F24, File still opened.....	218

F

F02C0F25, File opened for write.....	218
F02C0F26, File already exists.....	218
F02C0F27, No reserved block empty.....	218
F02C0F28, File not found.....	218
F02C0F3B, Not enough heap.....	218
F02C0F3F, Read error PKT file.....	218
F02C0F40.....	218
F02C0F41.....	218
F02C0F42.....	218
F02C0F43.....	218
F02C0F44.....	218
F02C0F45.....	218
F02C0F46.....	218
F02C0F47.....	218
F02C0F48.....	218
F02C0F49.....	218
F02C0F4A.....	218
F02C0F4B.....	218
F02C0F4C.....	218
F02C0F4D.....	218
F02C0F4E.....	218
F02C0F4F.....	218
F02C0F50.....	218
F02C0F51.....	218
F02C0F52.....	218
F02C0F53.....	218
F02C0F54.....	218
F02C0F55.....	218
F02C0F56.....	218
F02C0F57.....	218
F02D0000, sercos: No error in the service channel.....	311
F02D0001, sercos: Service channel not open. .	311
F02D0003, Max. count of parallel parameter requests exceeded.....	311
F02D0007, Parameter access to remote control not allowed.....	311
F02D0009, sercos: Invalid access to closing the service channel.....	311
F02D00A0, sercos: Parameter service chan- nel is not open.....	311
F02D00B0, sercos: Parameter element does not exist.....	312
F02D00C0, sercos: Selected drive does not exist.....	312
F02D1001, sercos: No IDN.....	312
F02D1009, sercos: Invalid access to ele- ment 1.....	312
F02D2001, sercos: No name.....	312
F02D2002, sercos: Name transmission too short.....	313
F02D2003, sercos: Name transmission too long.....	313
F02D2004, sercos: Name cannot be changed (read only).....	313

F

F02D2005, sercos: Name is write-protected at this time.....	313
F02D3002, sercos: Attribute transmission too short.....	313
F02D3003, sercos: Attribute transmission too long.....	313
F02D3004, sercos: Attribute cannot be changed (read only).....	313
F02D3005, sercos: Attribute is write-protected at this time.....	313
F02D4001, sercos: No units.....	313
F02D4002, sercos: Unit transmission too short.....	314
F02D4003, sercos: Unit transmission too long.....	314
F02D4004, sercos: Unit cannot be changed (read only).....	314
F02D4005, sercos: Unit is write-protected at this time.....	314
F02D5001, sercos: No minimum input value....	314
F02D5002, sercos: Min. input value transmission too short.....	314
F02D5003, sercos: Min. input value transmission too long.....	314
F02D5004, sercos: Min. input value cannot be changed (read only).....	314
F02D5005, sercos: Min. input value is write-protected at this time.....	315
F02D6001, sercos: No maximum input value...	315
F02D6002, sercos: Max. input value transmission too short.....	315
F02D6003, sercos: Max. input value transmission too long.....	315
F02D6004, sercos: Max. input value cannot be changed (read only).....	315
F02D6005, sercos: Max. input value is write-protected at this time.....	315
F02D7001, sercos: No operation data.....	315
F02D7002, sercos: Operation data transmission too short.....	315
F02D7003, sercos: Operation data transmission too long.....	316
F02D7004, sercos: Operation data cannot be changed (read only).....	316
F02D7005, sercos: Operation data is write-protected at this time.....	316
F02D7006, sercos: Operation data is smaller than the min input value.....	316
F02D7007, sercos: Operation data is greater than the max input value.....	316
F02D7008, sercos: Invalid operation data.....	316
F02D7009, sercos: Operation data write-protected by a password.....	316
F02D700A, sercos: Operation data is write-protected (cycl. conf).....	317
F02D700B, sercos: Invalid indirect addr., (data container, list).....	317

F

F02D700C, sercos: Operation data is write-protected (other settings).....	317
F02D700D, sercos: Invalid floating point number.....	317
F02D700E, sercos: Reserved.....	317
F02D700F, sercos: Reserved.....	317
F02D7010, sercos: Procedure command already active.....	317
F02D7011, sercos: Procedure command not interruptible.....	317
F02D7012, sercos: Procedure command at this time not executable.....	318
F02D7013, sercos: Procedure command not executable.....	318
F02D710C, sercos: Data exceed maximal range.....	318
F02D8001, sercos: Access temporary not possible.....	318
F02D8096, sercos: Device deactivated.....	318
F02D8097, sercos: Device does not exist.....	318
F0308001, Over-temperature.....	218
F0308002, Power failure.....	219
F0310004, Basic internal error in the oscilloscope.....	219
F0310007, Starting the oscilloscope is not possible.....	219
F0310008, Error during trigger-check.....	219
F0310009, Error during data recording.....	219
F03500FA, RCL Compiler: Time constant too great.....	219
F03500FB, RCL Compiler: Variable longer than 12 characters.....	220
F03500FD, RCL Compiler: Unexpected end of line.....	220
F03500FF, RCL Compiler: Syntax error, number expected.....	220
F0350101, RCL Compiler: Colon expected.....	220
F0350102, RCL Compiler: Left squared bracket expected.....	220
F0350103, RCL Compiler: Right squared bracket expected.....	220
F0350104, RCL Compiler: END expected.....	220
F0350105, RCL Compiler: EXACT or CIRCA expected.....	220
F0350106, RCL Compiler: INTEGER constant expected.....	220
F0350107, RCL Compiler: Equal sign expected.....	220
F0350108, RCL Compiler: Left bracket expected.....	220
F0350109, RCL Compiler: Right bracket expected.....	220
F035010A, RCL Compiler: Smaller or greater expected.....	221
F035010B, RCL Compiler: End of line or colon expected.....	221

Index

F

F035010C, RCL Compiler: Multiplication expected.....	221
F035010D, RCL Compiler: TO or VIA expected.....	221
F035010E, RCL Compiler: Variable expected..	221
F035010F, RCL Compiler: Keyword PRO-GRAM expected.....	221
F0350110, RCL Compiler: FILE expected.....	221
F0350111, RCL Compiler: SUBROUTINE expected.....	221
F0350112, RCL Compiler: REPEAT_END expected.....	221
F0350113, RCL Compiler: Type not defined....	221
F0350114, RCL Compiler: Const., symbol or expres. as factor exp.....	221
F0350115, RCL Compiler: End of file expected	221
F0350116, RCL Compiler: Invalid symbol.....	222
F0350117, RCL Compiler: Instruction expected.....	222
F0350118, RCL Compiler: Output variable expected.....	222
F0350119, RCL Compiler: Output not permitted.....	222
F035011A, RCL Compiler: BINARY expected..	222
F035011B, RCL Compiler: REAL expected.....	222
F035011C, RCL Compiler: Input variable expected.....	222
F035011D, RCL Compiler: Input not permitted.	222
F035011E, RCL Compiler: Program and file name do not fit.....	222
F035011F, RCL Compiler: Invalid number of elements.....	222
F0350120, RCL Compiler: Array expected.....	222
F0350121, RCL Compiler: Function name expected.....	222
F0350122, RCL Compiler: INTEGER expected	223
F0350123, RCL Compiler: INTEGER too large	223
F0350124, RCL Compiler: Read access not permitted.....	223
F0350125, RCL Compiler: Label already defined.....	223
F0350126, RCL Compiler: Label expected.....	223
F0350127, RCL Compiler: Label not defined....	223
F0350128, RCL Compiler: JC-Point expected..	223
F0350129, RCL Compiler: @ - character not permitted.....	223
F035012A, RCL Compiler: @ - character expected.....	223
F035012B, RCL Compiler: Symbol already exists.....	223
F035012C, RCL Compiler: Label for structure element expected.....	223
F035012D, RCL Compiler: Name not defined..	223
F035012E, RCL Compiler: Point or point variable expected.....	224

F

F035012F, RCL Compiler: Pair of points expected.....	224
F0350130, RCL Compiler: Jump back only permitted in subroutine.....	224
F0350131, RCL Compiler: Write access not permitted.....	224
F0350132, RCL Compiler: Jump not permitted	224
F0350134, RCL Compiler: Type conflict.....	224
F0350135, RCL Compiler: Lower limit exceeds upper limit.....	224
F0350136, RCL Compiler: Type incorrect.....	224
F0350137, RCL Compiler: Invalid axis number	224
F0350138, RCL Compiler: Subroutine name expected.....	224
F0350139, RCL Compiler: Variable expected..	224
F035013A, RCL Compiler: Record variable expected.....	224
F035013B, RCL Compiler: Point expected.....	225
F035013C, RCL Compiler: Invalid extension....	225
F035013D, RCL Compiler: Too many arguments.....	225
F035013E, RCL Compiler: Too less arguments.....	225
F035013F, RCL Compiler: Not implemented....	225
F0350140, RCL Compiler: Compiler error.....	225
F0350142, RCL Compiler: QLL file not present	225
F0350143, RCL Compiler: Error, file not found.	225
F0350144, RCL Compiler: File only accepted in main program.....	225
F0350146, RCL Compiler: Error during compilation.....	225
F0350147, RCL Compiler: Out of memory.....	225
F0350148, RCL Compiler: IRD file error.....	225
F0350149, RCL Compiler: Symbol file error....	226
F035014A, RCL Compiler: Point file error.....	226
F035014B, RCL Compiler: Error in error file....	226
F035014D, RCL Compiler: Keyword DEF incorrect.....	226
F035014E, RCL Compiler: Include file not present.....	226
F0350150, RCL Compiler: Axis name incorrect	226
F0350151, RCL Compiler: Index error.....	226
F0350152, RCL Compiler: invalid program parameter.....	226
F0350153, RCL Compiler: Keyword instead of label.....	226
F0350155, RCL Compiler: Comma expected...	226
F0350156, RCL Compiler: SUB_END expected.....	226
F0350157, RCL Compiler: PROGRAM_END expected.....	226
F0350158, RCL Compiler: Too many axes.....	227
F035015A, RCL Compiler: Number exists twice.....	227
F035015B, RCL Compiler: Cannot add point on kinematics.....	227

F

F035015C, RCL Compiler: Kinematics name expected.....	227
F035015D, RCL Compiler: Cannot add belt on kinematics.....	227
F035015E, RCL Compiler: External program expected.....	227
F035015F, RCL Compiler: INPUT/OUTPUT only permitted in decl.....	227
F0350160, RCL Compiler: Address for INPUT/OUTPUT expected.....	227
F0350161, RCL Compiler: Out of array.....	227
F0350162, RCL Compiler: Wrong type in array	227
F0350163, RCL Compiler: Input/Output.....	227
F0350164, RCL Compiler: Invalid channel address.....	227
F0350165, RCL Compiler: Coordinate expected.....	228
F0350166, RCL Compiler: Invalid kinematics instruction.....	228
F0350167, RCL Compiler: BEGIN expected....	228
F0350168, RCL Compiler: Keyword conflict....	228
F035016F, RCL Compiler: PKT file read / write error.....	228
F0350179, RCL Compiler: Wrong compiler version.....	228
F035017C, RCL Compiler: Maximum table entry exceeded.....	228
F035017E, RCL Compiler: Maximum error count reached.....	228
F0350185, RCL Compiler: Double INCLUDE - statement.....	228
F0350186, RCL Compiler: EXTERN only permitted in main program.....	228
F0350188, RCL Compiler: Only one EXPORT program permitted.....	228
F0350189, RCL Compiler: Pointvariable not found.....	228
F035018A, RCL Compiler: Different CID.....	229
F035018C, RCL Compiler: No EXPORT variable found.....	229
F035018D, RCL Compiler: Different axis count of the kinematics.....	229
F035018E, RCL Compiler: Not defined kinematics.....	229
F03501AC, RCL Compiler: Identifier expected.	229
F03501AD, RCL Compiler: Type expected.....	229
F03501AE, RCL Compiler: RECORD expected.....	229
F03501AF, RCL Compiler: RECORD_END expected.....	229
F03501B0, RCL Compiler: IF expected.....	229
F0350200, RCL Compiler: File name too long..	229
F0350212, RCL Compiler: Type name expected.....	229
F0350213, RCL Compiler: Identifier already defined.....	229

F

F0350214, RCL Compiler: Keyword here not permitted.....	230
F0350216, RCL Compiler: Recursive data types not permitted.....	230
F0350217, RCL Compiler: Write/read from this data type not possible.....	230
F0350218, RCL Compiler: Compare operator expected.....	230
F0350219, RCL Compiler: Illegal INPUT type. .	230
F035021A, RCL Compiler: Illegal OUTPUT type.....	230
F035021B, RCL Compiler: Illegal CASE konstant.....	230
F035021E, RCL Compiler: Illegal INPUT ARRAY.....	230
F035021F, RCL Compiler: Illegal OUTPUT ARRAY.....	230
F0350220, RCL Compiler: Wrong type during parameter transfer.....	230
F0350221, RCL Compiler: File only accepted in main program.....	230
F0350222, RCL Compiler: INPUT/OUTPUT only permitted in main program.....	230
F0350223, RCL Compiler: Data type FILE in RECORD not permitted.....	231
F0350224, RCL Compiler: Kinematics konflikt.	231
F0350227, RCL Compiler: Wrong format for export file.....	231
F0350228, RCL Compiler: No values assumed	231
F035022B, RCL Compiler: Equal or greater than expected.....	231
F035022C, RCL Compiler: Constant expected.	231
F035022D, RCL Compiler: IF_END expected. .	231
F035022E, RCL Compiler: Two points expected.....	231
F035022F, RCL Compiler: LABEL incompatible.....	231
F0350230, RCL Compiler: Wrong data type in CASE structure.....	231
F0350232, RCL Compiler: Multiple LABEL definition.....	231
F0350233, RCL Compiler: CASE table overflow.....	231
F0350234, RCL Compiler: Division by zero.....	232
F0350235, RCL Compiler: Positive number expected.....	232
F035023A, RCL Compiler: Translation aborted	232
F035023B, RCL Compiler: Error during memory approval.....	232
F035023C, RCL Compiler: End of PKT-file reached.....	232
F035023D, RCL Compiler: Error, cannot create point in PKT-File.....	232
F035023F, RCL Compiler: Keyword T expected.....	232

Index

F

F0350242, RCL Compiler: Variable or expression expected.....	232
F0350243, RCL Compiler: Program name expected.....	232
F0350244, RCL Compiler: Program start expected.....	232
F0350245, RCL Compiler: Illegal program name.....	232
F0350247, RCL Compiler: Alignment unequal four.....	232
F0350249, RCL Compiler: Illegal kinematics name.....	233
F0350484, RCL Compiler: Illegal kinematics number.....	233
F0360000, MLPI: Success.....	233
F0360001, MLPI: Common error.....	233
F0360002, MLPI: Not supported.....	233
F0360003, MLPI: Invalid argument.....	233
F0360004, MLPI: Out of memory.....	233
F0360005, MLPI: Timeout.....	234
F0360006, MLPI: Server exception.....	234
F0360007, MLPI: Connection failed.....	234
F0360008, MLPI: Create error.....	234
F0360009, MLPI: System error.....	234
F036000A, MLPI: Buffer too short.....	234
F036000B, MLPI: Invalid signature.....	235
F036000C, MLPI: Start error.....	235
F036000D, MLPI: Watchdog warning.....	235
F0370010, TaskViewer record already started.....	235
F0370011, TaskViewer record not started.....	235
F0370012, Create of TaskViewer file failed.....	235
F0370013, Start of TaskViewer record failed....	236
F0370014, TaskViewer record failed.....	236
F0370015, Setting of TaskViewer buffer not possible.....	236
F039****	236
F039****, PLC error messages from the 3S kernel	236
F03A****	236
F03A****, PLC error messages from the company components.....	236
F03A2002, Inline bus errors.....	236
F10B0001, External synchron clock is missing.	236
F12C0041, Protocol length file I/O too long.....	237
F12C0042, Unknown function data I/O.....	237
F12C0062, Passing factor (R_PTP) out of range.....	237
F12C006C, Error during RoCo system start-up no. 3.....	237
F12C0074, Positioning limits of an axis was exceeded.....	237
F12C007A, Tensor-Interpolation: Angles not in main area.....	237
F12C007B, Tensor-Interpolation: Angles not calculably.....	238

F

F12C007E, WC move not possible without reference points.....	238
F12C007F, No feed-allow-signal within belt synchronisation.....	238
F12C0083, Error during RoCo system start-up no. 5.....	238
F12C0084, Error during RoCo system start-up no. 7.....	238
F12C0085, Error during RoCo system start-up no. 9.....	238
F12C0086, Error during RoCo system start-up no. 11.....	238
F12C0087, Error during RoCo system start-up no. 13.....	238
F12C0088, Error during RoCo system start-up no. 15.....	238
F12C0089, Axis list is not correct.....	239
F12C008A, Transformation parameter does not fit to robot type.....	239
F12C008B, Transformation error: Singular system of equation.....	239
F12C008C, MODE does not turn to -1.....	239
F12C0099, Beltsync: Endpoint not reachable...	239
F12C009A, Beltsync: Limit of beltcounter (SPC_FCT 53) exceeded.....	240
F12C009B, Transformation length is 0.....	240
F12C00A3, Interpolation type not specified.....	240
F12C00A6, Watchdog expired.....	240
F12C00AA, Beltsync: Kinematics in singular position.....	240
F12C00AB, Kinematics in singular position.....	240
F12C00AD, Travel range limit JC reached.....	240
F12C00AE, Beltsync: Travel block activated too late.....	241
F12C00AF, Resulting axis velocity limit exceeded.....	241
F12C00B0, Ambiguity with beltsynchronisation	241
F12C00B1, Interpolation in wrong direction.....	241
F12C00B2, AUTO/MANUAL change not allowed.....	241
F12C00B4, Beltsync: 1. BS-Travel block activated too late.....	241
F12C00B5, RoCo Watchdog 2 - Error.....	241
F12C00B6, Beltsync: Block end reached too late.....	242
F12C0100, RoCo watchdog error.....	242
F12C0316, File open for read.....	242
F12C0317, File open for write.....	242
F12C031A, Block not initialized.....	242
F12C031D, Block not connected.....	242
F12C0406, Invalid SPC_FCT.....	242
F12C0407, SPC_FCT 53 was called with wrong parameters.....	242
F12C0408, Error at the last beltsynchronous movement block.....	243
F12C0410, Acceleration not allowed.....	243

F

F12C041A, Process error.....	244
F12C041B, Process already exists.....	244
F12C041C, Invalid travel time.....	244
F12C041D, Velocity not allowed.....	244
F12C041E, Impermissible jerk.....	245
F12C041F, User memory overflow.....	245
F12C0420, WRITE_BEGIN expected.....	245
F12C0421, File repeated opened.....	245
F12C0422, File already opened.....	245
F12C0423, Invalid file name.....	245
F12C0424, End of file reached while READ.....	246
F12C0426, Missing DAT-File.....	246
F12C0427, Read access to a file which is opened for write.....	246
F12C0428, READ_BEGIN expected.....	246
F12C042A, Missing WCSYST/TOOLS.DAT.....	246
F12C042B, WCSYST/TOOLS name missing...	246
F12C042D, Wrong parameters for external subroutine.....	246
F12C042E, Wrong number of parameters for external subroutine.....	247
F12C042F, Wrong type of parameters for external subroutine.....	247
F12C0430, Wrong declaration of parameters for ext. subroutine.....	247
F12C0431, Program includes parameters.....	247
F12C0432, INTEGER overflow.....	247
F12C0433, Workspace violation.....	247
F12C0435, Illegal parameter for external subroutine.....	247
F12C0436, Format error in DAT-file.....	247
F12C0437, SUB-Process stops its own mainprocess.....	248
F12C0438, Division by zero in RCL program...	248
F12C0439, Square root with negative argu- ment in RCL program.....	248
F12C043A, PTP within belt synchronous movement.....	248
F12C043C, Point not reachable.....	248
F12C043D, Wrong PKT file.....	248
F12C043F, Invalid output.....	248
F12C0440, Invalid input.....	248
F12C0441, Reserved.....	248
F12C0442, Transformation of this point is not possible.....	249
F12C0444, File does not exist.....	249
F12C0445, Negative delaytime.....	249
F12C0447, Error in IRD program.....	249
F12C0448, IRD stack overflow.....	249
F12C0449, IRD stack underflow.....	249
F12C044A, Invalid number of axes.....	249
F12C044B, Array index out of range.....	249
F12C044C, Program name too long.....	249
F12C044D, IRD option not activ.....	250
F12C044E, Missing PKT file.....	250
F12C044F, Point is not defined.....	250

F

F12C0451, No points in PKT file.....	250
F12C0453, Braekpoint not allowed because of belt synchr.....	250
F12C0454, Reserved.....	250
F12C0455, Beltsynchronisation can not be activated.....	250
F12C0457, Invalid float value.....	250
F12C0458, File sequentialisation not possible.	250
F12C045A, Wrong version of the RCL com- piler.....	251
F12C045C, Starting point too near the inter- mediate point.....	251
F12C045D, Starting point too near the end- point.....	251
F12C045F, Only positive velocity allowed.....	251
F12C0460, No belt option.....	251
F12C0462, Intermediate poin too near the endpoint.....	251
F12C0463, Start, intermediate and end point on a straight line.....	251
F12C0464, Start, intermediate and end point too close.....	251
F12C0466, Invalid kinematics number.....	251
F12C0467, GLOBAL-File does not exist.....	252
F12C0468, GLOBAL COMMON ID.....	252
F12C0469, Two GLOBAL-Files.....	252
F12C046A, BNR file does not exist.....	252
F12C046C, Option GLOBAL-File is not active..	252
F12C046D, MOVE FILE: Wrong version.....	252
F12C046E, MOVE FILE: Wrong number of axes.....	252
F12C046F, MOVE FILE: Reading pointer.....	252
F12C0470, MOVE FILE: Time base.....	253
F12C0471, MOVE FILE: IP-LR base.....	253
F12C0472, MOVE FILE: Format fault.....	253
F12C0473, MOVE FILE: MODULO_FLAG not occupied.....	253
F12C0474, Reserved.....	253
F12C0475, No positioning axes defined.....	253
F12C0476, Reserved.....	253
F12C0477, Invalid axes configuration.....	253
F12C0478, Raised/extended arm.....	254
F12C0479, WC zero position is singular.....	254
F12C047A, Too close to stand.....	254
F12C047C, Invalid TOOL value.....	254
F12C047D, Wrong belt direction programed...	254
F12C047E, Invalid kind of belt/tolerance of belt.....	254
F12C047F, Belt distance is zero.....	254
F12C0480, Invalid point.....	254
F12C0481, Invalid measuring system.....	255
F12C0482, Invalid belt number.....	255
F12C0483, In WC not allowed.....	255
F12C0484, Invalid kinematics number.....	255
F12C0485, PPO/IOL: Invalid function number..	255

Index

F

F12C0486, SPC_FCT 1, Invalid kinematics number.....	255
F12C0487, PPO/IOL: Invalid coordinate.....	255
F12C0488, PPO: Invalid parameter value.....	255
F12C048F, PPO/IOL: Invalid function number.....	256
F12C0490, Function number.....	256
F12C0492, Invalid SPS process number.....	256
F12C0493, Invalid time value.....	256
F12C0494, Min. value greater than max. value.....	256
F12C0495, Error by exception process start....	256
F12C0497, Workspace number.....	257
F12C0498, Transformation in PLC has not been registered.....	257
F12C0499, User defined transformation error in PLC.....	257
F12C049A, Internal error due to transformation in PLC.....	257
F12C0600, Invalid operation at PLC function call.....	257
F12C0601, Denormalized operand at PLC function call.....	257
F12C0602, Zero division at PLC function call....	257
F12C0603, Overflow at PLC function call.....	257
F12C0604, Underflow at PLC function call.....	258
F12C0605, Precision error at PLC function call.....	258
F12C0606, NAN at PLC function call.....	258
F12C0822, Axis not referenced while jogging. .	258
F12C0876, Transformation mathematical undefined.....	258
F12C0877, Hand axis traversing range exceeded.....	258
F12C0878, Orientation axis traversing range exceeded.....	258
F12C0879, Mathematical workspace exceeded.....	258
F12C087A, Singularity of kinematics.....	258
F12C087B, Mathematical workspace exceeded.....	259
F12C087C, Iteration divergent.....	259
F12C087D, COS singular.....	259
F12C0881, Illegal 'Drives ON'.....	259
F12C0883, Kinematics axis lost power.....	259
F12C0885, Workspace out of range.....	259
F12C08C7, Switch to manual operation not permitted.....	259
F12C0EB4, Memory dump error.....	259
F12C0EB5, Memory dump error.....	259
F12C0EB6, Memory dump error.....	260
F12C0EB7, Memory dump error.....	260
F12C0EB8, Memory dump error.....	260
F12C0EB9, Memory dump error.....	260
F1350C12, Negative time calculated in movement preparation.....	260
F200****.....	260
F200****, Drive error with error number F****...	260
F20B0005, Drive error.....	260

F

F20BE001, M_Busy-Bit not set.....	261
F20BE002, SVC: Protocol error.....	261
F20BE003, SVC: Handshake Timeout.....	261
F20BE004, SVC: Busy Timeout.....	261
F20BE005, SVC: Internal error.....	261
F20BE006, SVC in use.....	261
F20BE007, SVC: Request canceled.....	262
F20BE008, SVC internal request pending.....	262
F20BE009, SVC: Error message without SVC errorcode.....	262
F20D1015, Error while closing cyclic channel. .	262
F20D1025, Error while closing cyclic channel. .	262
F20D1029, Error opening cyclic channel.....	262
F20D102B, Error opening cyclic channel (READ-ACCESS).....	263
F20D102C, Error reading access (DirectReadReal).....	263
F20D102D, Error reading access (DirectReadWord).....	263
F20D102E, Error reading access (DirectReadDword).....	263
F20D1034, Error write access (DirectWriteWord).....	263
F20D1036, Axis has not been found (ML_AXISDATA).....	263
F20D1037, Invalid write/read access to ML_AXISDATA.....	263
F2110002, Axis is not homed.....	264
F2110003, Drive of axis does not exist.....	264
F2110004, Synchronization A to S/P-Parameter failed (A-0-0014).....	264
F2110005, Loss of encoder axis reference.....	264
F2110006, Invalid axis configuration.....	265
F2110007, Power lost on axis.....	265
F2110029, Positive travel limit exceeded.....	265
F2110030, Negative travel limit exceeded.....	266
F2110100, Control axis in error.....	266
F2112053, Target position out of travel range error.....	266
F2116029, Positive travel limit exceeded.....	267
F2116030, Negative travel limit exceeded.....	267
F2119001, RTOS error, illegal master axis.....	267
F2220231, Invalid master axis data.....	267
F2220356, Invalid filter time const., additive master position.....	268
F2220357, Invalid filter time const., angle offset begin of profile.....	268
F2220358, Invalid filter time const., additive slave position.....	268
F2220610, Invalid master axis.....	268
F2229200, General drive error.....	269
F2229203, Invalid command type.....	269
F2229204, Command not supported by axis....	269
F2229205, Command rejected, no power.....	269
F2229206, Command rejected while 'Stopping'.....	269
F2229207, Command rejected while 'Homing'.	270

F

F2229208, Invalid command number.....	270
F2229210, Reset still 'ErrorStop'.....	270
F2229211, Command rejected while 'Dis- crete Motion'.....	270
F2229212, Command rejected while 'Contin- uous Motion'.....	271
F2229213, Command rejected while 'Synchronized Motion'.....	271
F2229214, Command rejected while 'Error- Stop'.....	271
F2229216, No power available.....	271
F2229217, Command rejected while 'Stand- Still' and 'PowerOn'.....	272
F2229218, Command rejected while 'Stand- Still'.....	272
F2229223, Velocity below minimum.....	272
F2229224, Velocity above maximum.....	272
F2229225, Acceleration below minimum.....	272
F2229226, Acceleration above maximum.....	273
F2229227, Deceleration below minimum.....	273
F2229228, Deceleration above maximum.....	273
F2229229, Jerk below minimum.....	273
F2229230, Jerk above maximum.....	274
F2229231, Invalid direction.....	274
F2229232, Invalid master control number.....	274
F2229233, Invalid master axis number.....	274
F2229234, Invalid CamTable ID.....	274
F2229235, Error in MotionProfile.....	275
F2229263, RatioNumerator below minimum....	276
F2229264, RatioNumerator above maximum...	276
F2229265, RatioDenominator below minimum.	276
F2229266, RatioDenominator above maxi- mum.....	277
F2229267, MasterFineAdjust below minimum..	277
F2229268, MasterFineAdjust above maximum	277
F2229269, Invalid SyncMode.....	277
F2229270, Invalid StartMode.....	278
F2229271, Cam distance below minimum value.....	278
F2229272, Cam distance above maximum value.....	278
F2229273, Command rejected while 'Para- meter Mode'.....	278
F2229274, Axis not referenced.....	278
F2229275, Command aborted.....	279
F2229276, Control error.....	279
F2229277, Direct master axis change.....	279
F2229278, Disabled axis.....	279
F2229279, Command 'parking axis' active.....	279
F2229280, Command rejected while 'Coordi- nated Motion'.....	280
F2229281, Invalid float data.....	280
F2229282, MotionProfile, SetSelection be- low minimum value.....	280
F2229283, MotionProfile, SetSelection above maximum value.....	280

F

F2229284, Cam table is write-protected.....	280
F2229285, CAM table, usage counter out of range.....	280
F2229286, Choice relative positioning above max. value.....	281
F2229287, Can not assign axis to kinematics. .	281
F2229296, Absolute entry point in FlexPro- file not found.....	281
F2229297, Absolute entry in FlexProfile not possible.....	281
F2229298, Master velocity of FlexProfile is negative.....	282
F2229300, Invalid command channel.....	282
F2229301, Command rejected while 'Con- trolled Motion'.....	282
F2229310, Error in calculation of FlexProfile step.....	282
F2229311, FlexProfile: Invalid switching po- sition.....	282
F2229312, FlexProfile: Invalid FlexProfile startmode.....	282
F2229313, FlexProfile: Invalid FlexProfile slave axis offset.....	283
F2229314, Sum of dist. not 0 or mod. value, cyclic exec. not pos.....	283
F2229315, Invalid FlexProfile: Execution not possible.....	283
F2229335, FlexProfile: Set is write-protected...	283
F2229336, FlexProfile: Invalid step number....	283
F2229337, FlexProfile: Set number out of range.....	283
F2229338, ChangeFlexProfile: Invalid nomi- nal master velocity.....	284
F2229339, ChangeFlexProfile: invalid oper- ation mode.....	284
F2229341, FlexEvent: Set is write-protected...	284
F2229342, FlexEvent: Set number out of range.....	284
F2229347, FlexProfile: Invalid. Single exe- cution not possible.....	284
F2229348, FlexProfile: Invalid. Cyclic execu- tion not possible.....	284
F2229351, Synchronisation velocity below minimum.....	285
F2229352, Synchronisation velocity above maximum.....	285
F2229353, Synchronisation acceleration be- low minimum.....	285
F2229354, Synchronisation acceleration above maximum.....	286
F2229359, FlexProfile: Invalid master axis offset.....	286
F2229360, Command rejected while 'Con- trolled Motion'.....	286
F2229361, Command not supported by axis (Configuration).....	286

Index

F

F2229362, Command not supported by axis (Functional Package).....	287
F2229363, MotionProfile invalid.....	287
F2299400, General kinematics error.....	287
F2299401, Invalid control number.....	287
F2299402, Invalid kinematics number.....	287
F2299403, Invalid command type.....	287
F2299404, Command not supported by kinematics.....	287
F2299405, Command rejected while 'Stand-Still Incomplete'.....	287
F2299406, Command rejected while 'Program Stopping'.....	288
F2299407, Command rejected while 'Stand-Still Complete'.....	288
F2299408, Invalid command number.....	288
F2299409, Command not supported in this state.....	288
F2299410, Reset still 'ErrorStop'.....	288
F2299411, Command rejected while 'Program Running'.....	288
F2299412, Error while selecting RCL program.....	288
F2299413, Command rejected while 'Parameter Mode'.....	288
F2299414, Command rejected while 'Error-Stop'.....	288
F2299415, Command aborted.....	289
F2299416, Switching to 'StandStill' not possible.....	289
F2299417, RCL process does not exist.....	289
F2299501, Two PLC-MotionCommands per motion cycle not allowed.....	289
F2299502, Command rejected - buffer full.....	289
F2299503, Invalid motion command.....	289
F2299505, Synchronisation to more than one belt not possible.....	289
F22B0003, Kinematics does not exist.....	289
F22B0004, Axis not part of kinematics.....	290
F22B0005, Axis not existing.....	290
F22B0010, Error while internal converting RoCo Parameter.....	290
F22B0011, Error while int. conv. RoCo Parameter in conv. phase 0.....	290
F22B0012, Error while int. conv. RoCo Parameter in conv. phase 1.....	290
F22B0013, Error while int. conv. RoCo Parameter in conv. phase 2.....	290
F22B0014, Error while int. conv. RoCo Parameter in conv. phase 3.....	290
F22B0015, Error while int. conv. RoCo Parameter in conv. phase 4.....	291
F22B0016, Error while int. conv. RoCo Parameter in conv. phase 5.....	291
F22E0000, Drive error (generic axis).....	291
F2350066, Axis list in K-0-0008 not completed.....	291

F

F2350071, Gantry-Error: Maximum lag exceeded.....	291
F50B0002, sercos communication interrupted.....	291
F50B0010, Hardware failure.....	292
F50B0011, sercos device not compatible.....	292
F50D2000, Forced stop activated.....	292
F5180001, Invalid master axes combination....	292
F5180005, Motion kernel exceeded control cycle time.....	292
F5180006, Calculation of actual values exceeded cycle time.....	293
F5300001, Over-temperature.....	293
F5300002, Power failure.....	294
F5300100, RTOS error on PLS FM.....	294
F536000E, MLPI: Watchdog error.....	294
F80B0004, Double AT missing.....	294
F80B0015, RTOS error (Real Time Operating System).....	295
F80B0016, AT-Data not valid.....	295
F80B0017, Consumer connection failure.....	295
F80B0018, Producer Connection failure.....	296
F80B0019, Consumer connection timeout.....	296
F80B0162, Internal control error.....	296
F80B0163, Internal control error.....	296
F8200023, Critical temperatur reached, processor will stop.....	296
F9010001, Default object on wrong address....	297
F9010002, Memory allocation error, no memory available.....	297
F9010003, Invalid function pointer.....	297
F90B0012, sercos interface watch dog occurred.....	298
F90B0020.....	298
F90B0021.....	298
F90B0022.....	298
F90B0023.....	298
F90B0024.....	298
F90B0025.....	298
F90B0026.....	298
F90B0027.....	298
F90B0028.....	298
F90B0029, DRI, upload of firmware into des CFL01.1-Q2-FPGA failed.....	298
F90B0030.....	298
F90B0031.....	298
F90B0032.....	298
F90B0033.....	298
F90B0034.....	298
F90B0035.....	298
F90B0036.....	298
F90B0037.....	298
F90B0038.....	298
F90B0039.....	298
F90B0040.....	298
F90B0041.....	298
F90B0042.....	298

F

F90B0043.....	298
F90B0044.....	298
F90B0045.....	298
F90B0046.....	298
F90B0047.....	298
F90B0048.....	298
F90B0049.....	298
F90B0050.....	298
F90B0051.....	298
F90B0052.....	298
F90B0053.....	298
F90B0054.....	298
F90B0055.....	298
F90B0056.....	298
F90B0057.....	298
F90B0058.....	298
F90B0059.....	298
F90B0060.....	298
F90B0061.....	298
F90B0062.....	298
F90B0063.....	298
F90B0064.....	298
F90B0065.....	298
F90B0066.....	298
F90B0067.....	298
F90B0068.....	298
F90B0069.....	298
F90B0070.....	298
F90B0071.....	298
F90B0072.....	298
F90B0073.....	298
F90B0074.....	298
F90B0075.....	298
F90B0076.....	298
F90B0077.....	298
F90B0078.....	298
F90B0079.....	298
F90B0080.....	298
F90B0081.....	298
F90B0082.....	298
F90B0083.....	298
F90B0084.....	298
F90B0085.....	298
F90B0086.....	298
F90B0087.....	298
F90B0088.....	298
F90B0089.....	298
F90B0090.....	298
F90B0091.....	298
F90B0092.....	298
F90B0093.....	298
F90B0094.....	298
F90B0095.....	298
F90B0096.....	298
F90B0097.....	298
F90B0098.....	298

F

F90B0099.....	298
F90B0100.....	298
F90B0101.....	298
F90B0102.....	298
F90B0103.....	298
F90B0104.....	298
F90B0105.....	298
F90B0106.....	298
F90B0107.....	298
F90B0108.....	298
F90B0109.....	298
F90B0110.....	298
F90B0111.....	298
F90B0112.....	298
F90B0113.....	298
F90B0114.....	298
F90B0115.....	298
F90B0116.....	298
F90B0117.....	298
F90B0118.....	298
F90B0119.....	298
F90B0120.....	298
F90B0121.....	298
F90B0122.....	298
F90B0123.....	298
F90B0124.....	298
F90D1021, Error ReadParameter, no memo- ry available.....	298
F90D1023, Error WriteParameter.....	298
F90D1024, Error WriteParameter, no memo- ry available.....	298
F90D1032, No access to axes (1).....	299
F90D1033, No access to axes (2).....	299
F90D1038, Error getting MessageQueue.....	299
F90D1039, Thread could not be started.....	299
F90D103A, Left endless While-Loop.....	299
F90D1204, Error, no memory available.....	299
F90D1209, Error, no memory available.....	299
F9180002, Maximum number of axes excee- ded.....	299
F9180003, Axis registration invalid.....	300
F9180004, Invalid mode change requested.....	300
F9200016, PLC watchdog expired.....	300
F9200017, Hardware watchdog expired.....	300
F9200020, MK1 watchdog expired.....	300
F9200021, MK2 watchdog expired.....	300
F9200034, No free memory (RAM) available... ..	300
F9200035, No free remanent memory (NVRAM) available.....	301
F9220001, Invalid error reaction.....	301
F9220002, Error in the axis state machine.....	301
F9240001, Exception, Divide Error.....	301
F9240002, Exception, Invalid Opcode.....	301
F9240003, Exception, Stack Fault.....	302
F9240004, Exception, General Protection Fault.....	302

Index

F

F9240005, Exception, Page Fault.....	302
F9240006, Exception, Coprocessor Error.....	302
F9240007, Exception, Unknown Exception.....	302
F9240020, Timeout while sending the mes- sage queue.....	302
F9240021, Timeout while receiving the mes- sage queue.....	302
F9240022, No free buffer space to send a message.....	303
F9240023, No free buffer space to receive a message.....	303
F9240024, Error while sending the message queue.....	303
F9240025, Error while receiving the mes- sage queue.....	303
F9240026, Error response not possible.....	303
F92C0003, Fatal transformation error.....	303
F92C0007, Inadmissible change of coordi- nate system.....	303
F92C0023, HEAP-Overflow.....	304
F92C0028, Invalid interpolation type.....	304
F92C0079, Invalid Robot Control configuration	304
F92C007D, Invalid init mode.....	304
F92C00CC, Error in task suspend.....	304
F92C00CD, Error in usertask suspend.....	304
F92C00D4, Error in PARALLEL_END.....	304
F92C00DD, Device-I/O: Exclusive access could not be secured.....	304
F92C00DE, Device-I/O: Error in exclusive access.....	304
F92C00E0, File chain not sequential.....	305
F92C00E1, Error in file management.....	305
F92C00E2, File management error in file-I/O...	305
F92C00E3, File management error in organ- ization block.....	305
F92C00E4, File management error in file chain.....	305
F92C00E7, Invalid write access (end of file)....	305
F92C00E8, Invalid write access (destination address too large).....	305
F92C00E9, End of file exceeded.....	305
F92C00EB, Invalid file read mode.....	305
F92C00EC, Invalid file open mode.....	306
F92C00ED, Allocation error.....	306
F92C00EE, Wrong file open mode for Allo- cation.....	306
F92C00F0, Wrong control mode for file list.....	306
F92C00F1, Wrong control mode for file close. .	306
F92C00F4, File chain not sequential.....	306
F92C0314, File management error in organi- zation block.....	306
F92C0318, Wrong block status of file.....	306
F92C0319, File not sequential.....	306
F92C043E, Wrong absolute address in IRD- programm.....	307
F92C0456, Fatal error: In PKT file.....	307

F

F92C0ED8, Fatal file administration error: File not open.....	307
F92C0ED9, Fatal file administration error: File not open.....	307
F92C0EDA, Fatal file administration error: File not open.....	307
F92C0EDB, Fatal file administration error: File not open.....	307
F92C0EDC, Fatal file administration error: File not open.....	307
F92C0EDD, Fatal file administration error: File not open.....	308
F92C0EDE, Fatal file administration error: File not open.....	308
F92C0EDF, Fatal file administration error: File not open.....	308
F92C0EE0, Fatal file administration error: File compressing.....	308
F92C0EE1, Fatal file administration error: Search file.....	308
F92C0EE2, Fatal file administration error: Wrong file attribute.....	308
F92C0EE3, Fatal file administration error: Il- legal block.....	308
F92C0EE4, Fatal file administration error: File search.....	308
F92C0EE5, Fatal file administration error: File open.....	309
F92C0EE6, Fatal file administration error: File search.....	309
F92C0EE7, Fatal file administration error: File read.....	309
F92C0EE8, Fatal file administration error: File open.....	309
F92C0EE9, Fatal file administration error.....	309
F9301000, Error while loading the PLS-Firm- ware.....	309
F93C0001, Exception at parsing of XML configuration.....	309
Fatal axis error.....	44
Fatal control error.....	44
Fatal system error.....	44

H

HydraulicDrive drive error.....	48
HydraulicDrive drive warning.....	49
HydraulicDrive warning.....	49

I

IndraDrive drive error.....	48

N

Names and abbreviations.....	40
Non-fatal error.....	43

P

PLC user function blocks, Transfer of diagnostics to the logbook..... 51

S

Safety instructions..... 40
SercosDrive, error message..... 50
sercos error message..... 51
SPSMGERR..... 55
STARTERR..... 55
Support
 See service hotline 319
Symbols used..... 40

T

Target group..... 35

U

UNSUPPHW..... 55

V

Virtual axis, error message..... 50

W

Warning
 HydraulicDrive 49
 IndraDrive 49

X

XLC/MLC diagnostic parameters..... 52

Notes

Bosch Rexroth AG
Electric Drives and Controls
P.O. Box 13 57
97803 Lohr, Germany
Bgm.-Dr.-Nebel-Str. 2
97816 Lohr, Germany
Tel. +49 9352 18 0
Fax +49 9352 18 8400
www.boschrexroth.com/electrics



R911334180

DOK-XLCMLC-DIAG****V12-RE03-EN-P