SEW EURODRIVE

Manual

MOVI-C®

Fault Descriptions MOVISAFE® CS..A

Edition 06/2019

29120268/EN

Table of contents

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1 General information

1.1 Other applicable documentation

This document supplements the operating instructions and limits the application notes according to the following information. Use this document only in connection with the operating instructions.

- Operating instructions:
  - "MOVIDRIVE® modular", "MOVIDRIVE® system", "MOVIDRIVE® technology"
  - "MOVIDRIVE® modular/system with CiA402 Device Profile"
- Manuals:
  - "MOVIDRIVE® modular/system/technology – Safety Card MOVISAFE® CS..A (Version 2)"
  - "MOVI-C® Decentralized Electronics – Safety Option MOVISAFE® CSB51A"

Always use the latest edition of documentation and software.

The SEW-EURODRIVE website (www.sew-eurodrive.com) provides a wide selection of documents for download in various languages. If required, you can also order printed and bound copies of the documentation from SEW-EURODRIVE.

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2 Fault list – safety technology

Following a list of safety technology relevant device faults, their causes, and remedial measures.

2.1 Fault 0 No fault

Subfault: 0.0 **Description: No fault**		
	Fault class: Message	
	Cause	Measure
	No fault	

2.2 Fault 13 Encoder 1

Subfault: 13.50 **Description: Safety card encoder fault**	
Fault class: Encoder fault	
Cause	Measure
Safety card encoder fault	– Check the wiring. – Check interference sources. – Apply the shield of the encoder cable over a large area. – Check the encoder.

Subfault: 13.51 **Description: Safety card encoder warning**	
Fault class: Warning	
Cause	Measure
Encoder fault detected while drive safety function inactive.	– Check the wiring. – Check interference sources. – Apply the shield of the encoder cable over a large area. – Check the encoder.

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Subfault: 13.52

Description: Encoder signal error

Fault class: Warning

Cause	Measure
Unexpected encoder signals.	– Check the wiring. – Check interference sources. – Apply the shield of the encoder cable over a large area. – Check the encoder.

Subfault: 13.53

Description: Maximum frequency exceeded

Fault class: Warning

Cause	Measure
Maximum signal frequency exceeded.	– Check the maximum input frequency. – Check the wiring. – Check interference sources. – Apply the shield of the encoder cable over a large area. – Check the encoder.

Subfault: 13.54

Description: Cross-check error

Fault class: Warning

Cause	Measure
Cross-check error in encoder evaluation.	– Check the wiring. – Check interference sources. – Apply the shield of the encoder cable over a large area. – Check the encoder.

Subfault: 13.55

Description: Signal level monitoring

Fault class: Warning

Cause	Measure
Track signal level not within tolerance band.	– Check the wiring. – Check interference sources. – Apply the shield of the encoder cable over a large area. – Check the encoder.

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Subfault: 13.56 Description: Maximum speed exceeded while encoder fault muting is active.		
	Fault class: System error	
	Cause	Measure
	Maximum permitted speed exceeded and encoder fault muting active.	– Check the maximum speed of the application while encoder fault muting is active and adjust if necessary. – Check the parameter setting of the safety card and adjust if necessary.

Subfault: 13.57 Description: Maximum speed exceeded	
Fault class: Encoder fault	
Cause	Measure
Maximum permitted speed exceeded.	– Check the maximum speed of the application and adjust if necessary. – Check the parameter setting of the safety card and adjust if necessary.

Subfault: 13.58 Description: Detection limit exceeded	
Fault class: Warning	
Cause	Measure
Speed exceeded detection limit.	– Check the maximum speed of the application and adjust if necessary. – Check the parameter setting of the safety card and adjust if necessary.

2.3 Fault 18 Software error

Subfault: 18.7 Description: Fatal error	
Fault class: Critical fault	
Cause	Measure
Fatal software error.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

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Subfault: 18.9 Description: Internal software error		
	Fault class: Critical fault	
	Cause	Measure
	The software reports an unexpected event.	– Switch the device off and on again. – If the error occurs repeatedly, replace the device and send it together with the error number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

2.4 Fault 20 Device monitoring

Subfault: 20.3 Description: Safety card undervoltage DC 24 V		
	Fault class: System error	
	Cause	Measure
	Undervoltage of DC24 V supply voltage detected.	– Check the DC 24 V supply voltage. – Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 20.4 Description: Safety card overvoltage DC 24 V		
	Fault class: System error	
	Cause	Measure
	Overvoltage of DC 24 V supply voltage detected.	– Check the DC 24 V supply voltage. – Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 20.5 Description: Safety card overvoltage protection DC 24 V		
	Fault class: System error	
	Cause	Measure
	Error in overvoltage protection circuit.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

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Subfault: 20.6 **Description: Safety card short-circuit protection DC 24 V**	
Fault class: System error	
Cause	Measure
Error in short-circuit protection circuit.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 20.12 **Description: Safety card temperature error**	
Fault class: System error	
Cause	Measure
Measured temperature outside specified value range.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 20.13 **Description: Safety card undervoltage DC 3.3 V**	
Fault class: System error	
Cause	Measure
Undervoltage of DC 3.3 V supply voltage detected.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 20.14 **Description: Safety card overvoltage DC 3.3 V**	
Fault class: System error	
Cause	Measure
Overvoltage of DC 3.3 V supply voltage detected.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

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Subfault: 20.15 **Description: Safety card DC 12 V encoder supply voltage**	
Fault class: Encoder fault	
Cause	Measure
Upper or lower limit value of DC 12 V encoder supply voltage exceeded.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 20.16 **Description: Safety card DC 24 V encoder voltage supply**	
Fault class: Encoder fault	
Cause	Measure
Upper or lower limit value of DC 24 V encoder supply voltage exceeded.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 20.17 **Description: Undervoltage encoder reference voltage**	
Fault class: System error	
Cause	Measure
Undervoltage of encoder reference voltage detected.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 20.18 **Description: Overvoltage encoder reference voltage**	
Fault class: System error	
Cause	Measure
Overvoltage of encoder reference voltage detected.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

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Subfault: 20.19 Description: Safety card undervoltage of reference voltage		
	Fault class: System error	
	Cause	Measure
	Undervoltage of reference voltage detected.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 20.20 Description: Safety card overvoltage of reference voltage		
	Fault class: System error	
	Cause	Measure
	Overvoltage of reference voltage detected.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

2.5 Fault 25 Parameter memory monitoring

Subfault: 25.55 Description: Incompatible safety card parameter set on pluggable memory module		
	Fault class: Warning	
	Cause	Measure
	Parameter set on pluggable memory module created by incompatible safety card version.	Parameterize the safety card again and validate.

Subfault: 25.56 Description: Corrupt safety card parameter set on pluggable memory module		
	Fault class: Warning	
	Cause	Measure
	Corrupt safety card parameter set on pluggable memory module.	Parameterize the safety card again and validate.

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Subfault: 25.57 **Description: Internal communication error while accessing pluggable memory module**		
	Fault class: Warning	
	Cause	Measure
	Internal communication error while accessing pluggable memory module.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 25.58 **Description: Error applying parameter set of safety card from pluggable memory module**		
	Fault class: Warning	
	Cause	Measure
	Failure to apply the parameter data set of the safety card from the replaceable memory module can have the following reasons: – The "Assist CS.." tool is open. – Another parameter setting process is running.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 25.100 **Description: Device replacement detected**		
	Fault class: Message	
	Cause	Measure
	Current parameter set of safety card differs from parameter set stored on pluggable memory module.	No action required. The parameter set of the pluggable memory module is applied to the safety card.

Subfault: 25.101 **Description: Activation of data of the replaceable safety key during safety card startup**		
	Fault class: Message	
	Cause	Measure
	The data on the replaceable safety key has been overwritten by an older safety card version.	For information only.

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2.6 Fault 32 Communication

Subfault: 32.13 Description: Process data timeout		
	Fault class: Warning	
	Cause	Measure
	Process data timeout.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 32.14 Description: Internal communication error		
	Fault class: Warning	
	Cause	Measure
	An error occurred in the non-safe communication.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

2.7 Fault 60 Safe digital input

Subfault: 60.20 Description: FD-I Internal fault		
	Fault class: Input fault	
	Cause	Measure
	Fault detected on safety card during internal test of safe digital inputs F-DI.	– Acknowledge the fault. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

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Subfault: 60.22 **Description: F-DI 00/01 Discrepancy error**		
	Fault class: Input fault	
	Cause	Measure
	Discrepancy error F-DI 00/01: – The parameterized discrepancy time in 2-channel evaluation of the safe digital inputs F-DI 00/01 has been exceeded, or an error has been detected in a subchannel. – Switch test condition not fulfilled.	– Check the 2-channel switch/sensor connected to the safe digital input pair F-DI 00/01. – Check the parameter setting of the safety card. If necessary, increase the discrepancy time. – If the switch test function at F-DI 00/01 is active, make sure that the switch test condition is fulfilled before acknowledging the fault. – Acknowledge the fault.

Subfault: 60.24 **Description: F-DI 02/03 Discrepancy error**		
	Fault class: Input fault	
	Cause	Measure
	Discrepancy error F-DI 02/03: – The parameterized discrepancy time in 2-channel evaluation of the safe digital inputs F-DI 02/03 has been exceeded, or an error has been detected in a subchannel. – Switch test condition not fulfilled.	– Check the 2-channel switch/sensor connected to the safe digital input pair F-DI 02/03. – Check the parameter setting of the safety card. If necessary, increase the discrepancy time. – If the switch test function at F-DI 02/03 is active, make sure that the switch test condition is fulfilled before acknowledging the fault. – Acknowledge the fault.

Subfault: 60.32 **Description: F-DI 00 Crossfault**		
	Fault class: Input fault	
	Cause	Measure
	Crossfault detected at safe digital input F-DI 00 or plausibility test failed.	– Check the external wiring/connection of safe digital input F-DI 00 for crossfault. – Acknowledge the fault.

Subfault: 60.33 **Description: F-DI 01 Crossfault**		
	Fault class: Input fault	
	Cause	Measure
	Crossfault detected at safe digital input F-DI 01 or plausibility test failed.	– Check the external wiring/connection of safe digital input F-DI 01 for crossfault. – Acknowledge the fault.

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Subfault: 60.34 **Description: F-DI 02 Crossfault**		
	Fault class: Input fault	
	Cause	Measure
	Crossfault detected at safe digital input F-DI 02 or plausibility test failed.	– Check the external wiring/connection of safe digital input F-DI 02 for crossfault. – Acknowledge the fault.

Subfault: 60.35 **Description: F-DI 03 Crossfault**		
	Fault class: Input fault	
	Cause	Measure
	Crossfault detected at safe digital input F-DI 03 or plausibility test failed.	– Check the external wiring/connection of safe digital input F-DI 03 for crossfault. – Acknowledge the fault.

Subfault: 60.40 **Description: F-DI 00 Connection error**		
	Fault class: Input fault	
	Cause	Measure
	Maximum response time exceeded at safe digital input F-DI 00. No stable input signal at F-DI 00 within the parameterized input filter time.	– Check the switch/sensor connected to safe digital input F-DI 00. – Increase the parameter "Input filter time" at F-DI 00. – Acknowledge the fault.

Subfault: 60.41 **Description: F-DI 01 Connection error**		
	Fault class: Input fault	
	Cause	Measure
	Maximum response time exceeded at safe digital input F-DI 01. No stable input signal at F-DI 01 within the parameterized input filter time.	– Check the switch/sensor connected to safe digital input F-DI 01. – Increase the parameter "Input filter time" at F-DI 01. – Acknowledge the fault.

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Subfault: 60.42 **Description: F-DI 02 Connection error**		
	Fault class: Input fault	
	Cause	Measure
	Maximum response time exceeded at safe digital input F-DI 02. No stable input signal at F-DI 02 within the parameterized input filter time.	– Check the switch/sensor connected to safe digital input F-DI 02. – Increase the parameter "Input filter time" at F-DI 02. – Acknowledge the fault.

Subfault: 60.43 **Description: F-DI 03 Connection error**		
	Fault class: Input fault	
	Cause	Measure
	Maximum response time exceeded at safe digital input F-DI 03. No stable input signal at F-DI 03 within the parameterized input filter time.	– Check the switch/sensor connected to safe digital input F-DI 03. – Increase the parameter "Input filter time" at F-DI 03. – Acknowledge the fault.

2.8 Fault 61 Safe digital output

Subfault: 61.1 **Description: F-DO 00 Internal fault**		
	Fault class: Output fault	
	Cause	Measure
	Fault in safe digital output F-DO 00 detected on safety card during internal test of safe digital output channels.	– Acknowledge the fault. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 61.2 **Description: F-DO 01 Internal fault**		
	Fault class: Output fault	
	Cause	Measure
	Fault in safe digital output F-DO 01 detected on safety card during internal test of safe digital output channels.	– Acknowledge the fault. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

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Subfault: 61.11 **Description: F-DO 00_P Short circuit**		
	Fault class: Output fault	
	Cause	Measure
	Short circuit in external wiring at P output of safe digital output F-DO 00.	Check the external wiring at the P output of safe digital output F-DO 00 for short circuit.

Subfault: 61.12 **Description: F-DO 01_P Short circuit**		
	Fault class: Output fault	
	Cause	Measure
	Short circuit in external wiring at P output of safe digital output F-DO 01.	Check the external wiring at the P output of safe digital output F-DO 01 for short circuit.

Subfault: 61.21 **Description: F-DO 00_M Short circuit**		
	Fault class: Output fault	
	Cause	Measure
	Short circuit in external wiring at M output of safe digital output F-DO 00.	Check the external wiring at the M output of safe digital output F-DO 00 for short circuit.

Subfault: 61.22 **Description: F-DO 01_M Short circuit**		
	Fault class: Output fault	
	Cause	Measure
	Short circuit in external wiring at M output of safe digital output F-DO 01.	Check the external wiring at the M output of safe digital output F-DO 01 for short circuit.

Subfault: 61.31 **Description: F-DO 00 Crossfault**		
	Fault class: Output fault	
	Cause	Measure
	Crossfault in external wiring of safe digital output F-DO 00. Excessive capacitive load or test duration too short.	– Check the external wiring of safe digital output F-DO 00 for crossfault. – Check the parameter "Maximum test duration". If the maximum response time allows for a longer test duration, set this parameter to a greater value. – Make sure that the capacitance of the connected load does not exceed the value permitted for the output.

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Subfault: 61.32 **Description: F-DO 01 Crossfault**	
Fault class: Output fault	
Cause	Measure
Crossfault in external wiring of safe digital output F-DO 01. Excessive capacitive load or test duration too short.	– Check the external wiring of safe digital output F-DO 01 for crossfault. – Check the parameter "Maximum test duration". If the maximum response time allows for a longer test duration, set this parameter to a greater value. – Make sure that the capacitance of the connected load does not exceed the value permitted for the output.

Subfault: 61.41 **Description: F-DO 00_P Overcurrent**	
Fault class: Output fault	
Cause	Measure
Permitted output current exceeded at P output of safe digital output F-DO 00.	– Make sure that the current consumption of the connected load does not exceed the permitted output current. If necessary, change the load. – Check the external wiring of safe digital output F-DO 00 for crossfault.

Subfault: 61.42 **Description: F-DO 01_P Overcurrent**	
Fault class: Output fault	
Cause	Measure
Permitted output current exceeded at P output of safe digital output F-DO 01.	– Make sure that the current consumption of the connected load does not exceed the permitted output current. If necessary, change the load. – Check the external wiring of safe digital output F-DO 01 for crossfault.

Subfault: 61.51 **Description: F-DO 00_M Overcurrent**	
Fault class: Output fault	
Cause	Measure
Permitted output current exceeded at M output of safe digital output F-DO 00.	– Make sure that the current consumption of the connected load does not exceed the permitted output current. If necessary, change the load. – Check the external wiring of safe digital output F-DO 00 for crossfault.

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Subfault: 61.52 **Description: F-DO 01_M Overcurrent**		
	Fault class: Output fault	
	Cause	Measure
	Permitted output current exceeded at M output of safe digital output F-DO 01.	– Make sure that the current consumption of the connected load does not exceed the permitted output current. If necessary, change the load. – Check the external wiring of safe digital output F-DO 01 for crossfault.

Subfault: 61.61 **Description: F-DO 00 Wire break**		
	Fault class: Output fault	
	Cause	Measure
	Interruption in output circuit of safe digital output F-DO 00.	Check the external wiring at safe digital output F-DO 00: – Check the load. – Check the wiring for wire break. – Make sure that the lowest current consumption of the connected load does not drop below the minimum load required for wire break detection.

Subfault: 61.62 **Description: F-DO 01 Wire break**		
	Fault class: Output fault	
	Cause	Measure
	Interruption in output circuit of safe digital output F-DO 01.	Check the external wiring at safe digital output F-DO 01: – Check the load. – Check the wiring for wire break. – Make sure that the lowest current consumption of the connected load does not drop below the minimum load required for wire break detection.

Subfault: 61.71 **Description: F-DO 00 Inductive load**		
	Fault class: Output fault	
	Cause	Measure
	Inductance of load connected to safe digital output F-DO 00 too large, or no freewheeling diode present.	Check the external wiring at safe digital output F-DO 00: – If the load has an inductance, make sure that a freewheeling diode is present. – Check the freewheeling diode for proper functioning.

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Subfault: 61.72 **Description: F-DO 01 Inductive load**		
	Fault class: Output fault	
	Cause	Measure
	Inductance of load connected to safe digital output F-DO 01 too large, or no freewheeling diode present.	Check the external wiring at safe digital output F-DO 01: – If the load has an inductance, make sure that a freewheeling diode is present. – Check the freewheeling diode for proper functioning.

Subfault: 61.81 **Description: F-DO 00 Excessive cyclic switching**		
	Fault class: Output fault	
	Cause	Measure
	Failed to complete self-tests at safe digital output F-DO 00 because of excessive cyclic switching	Make sure that safe digital output F-DO 00 is open or closed at least once for at least 2 seconds within 60 seconds.

Subfault: 61.82 **Description: F-DO 01 Excessive cyclic switching**		
	Fault class: Output fault	
	Cause	Measure
	Failed to complete self-tests at safe digital output F-DO 01 because of excessive cyclic switching	Make sure that safe digital output F-DO 01 is open or closed at least once for at least 2 seconds within 60 seconds.

Subfault: 61.87 **Description: F-DO 00 Undervoltage DC 24 V during diagnostics**		
	Fault class: Output fault	
	Cause	Measure
	Undervoltage of DC 24 V supply voltage detected during diagnostics of safe digital output F-DO 00.	– Check the DC 24 V supply voltage (permitted voltage range, voltage dips). – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

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Subfault: 61.93 Description: F-DO Fault during external watchdog diagnostics		
	Fault class: Output fault	
	Cause	Measure
	Error detected in F-DO state during external watchdog diagnostics.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

2.9 Fault 62 STO output

Subfault: 62.1 Description: Short circuit at terminal X6 (STO)		
	Fault class: Output fault	
	Cause	Measure
	Short circuit between terminal X6 (STO) and ground.	– Make sure that no external signals are connected to terminal X6 (STO). – Make sure that terminal X6 (STO) is not wired (e.g. jumper plug must be removed).

Subfault: 62.2 Description: Crossfault at terminal X6 (STO)		
	Fault class: Output fault	
	Cause	Measure
	Crossfault between terminal X6 (STO) and external voltage.	– Make sure that no external signals are connected to terminal X6 (STO). – Make sure that terminal X6 (STO) is not wired (e.g. jumper plug must be removed).

Subfault: 62.3 Description: STO circuit internal fault		
	Fault class: Output fault	
	Cause	Measure
	Error detected in STO circuit of device.	– Make sure that no external signals are connected to terminal X6 (STO). – Make sure that terminal X6 (STO) is not wired (e.g. jumper plug must be removed). – Switch the device off and on again. – If the fault occurs repeatedly, replace the device and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

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Subfault: 62.4 Description: Extended diagnostics STO: test interval exceeded		
	Fault class: Warning	
	Cause	Measure
	User error: The parameter "Extended diagnostics STO" is set to "Test when deactivated and time monitoring". But no test has been performed within 8 hours.	– Activate and deactivate the STO drive safety function at least once within 8 hours. – If time monitoring is not needed for the "Extended diagnostics STO" function, deactivate the function.

Subfault: 62.5 Description: Excessive cyclic switching		
	Fault class: Output fault	
	Cause	Measure
	Failed to complete diagnostics because of excessive cyclic switching.	– Check the application. – Make sure that the STO drive safety function is active or inactive at least once for 2.5 seconds within 60 seconds.

Subfault: 62.6 Description: STO control internal fault		
	Fault class: Output fault	
	Cause	Measure
	Fault detected on safety card by internal test of STO control.	If the fault occurs repeatedly, replace the device and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 62.7 Description: Undervoltage DC 24 V during diagnostics		
	Fault class: Output fault	
	Cause	Measure
	Undervoltage of DC 24 V supply voltage detected during diagnostics.	– Check the DC 24 V supply voltage (permitted voltage range, voltage dips). – If the fault occurs repeatedly, replace the device and send it together with the fault number to SEW-EURODRIVE, or replace the voltage supply. For further support, contact SEW-EURODRIVE Service.

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Subfault: 62.93 Description: STO fault during external watchdog diagnostics		
	Fault class: System error	
	Cause	Measure
	Fault detected in STO status during external watchdog diagnostics.	– Switch the device off and on again. – Make sure that no external signals are connected to terminal X6 (STO). – Make sure that terminal X6 (STO) is not wired (e.g. jumper plug must be removed). – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

2.10 Fault 63 Speed-dependent drive safety function

Subfault: 63.1 Description: SLS 1 limit speed exceeded in positive direction of movement		
	Fault class: Warning	
	Cause	Measure
	SLS 1 limit speed exceeded in positive direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (limit speed SLS 1), and adjust if necessary.

Subfault: 63.2 Description: SLS 2 limit speed exceeded in positive direction of movement		
	Fault class: Warning	
	Cause	Measure
	SLS 2 limit speed exceeded in positive direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (limit speed SLS 2), and adjust if necessary.

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Subfault: 63.3 Description: SLS 3 limit speed exceeded in positive direction of movement		
	Fault class: Warning	
	Cause	Measure
	SLS 3 limit speed exceeded in positive direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (limit speed SLS 3), and adjust if necessary.

Subfault: 63.4 Description: SLS 4 limit speed exceeded in positive direction of movement		
	Fault class: Warning	
	Cause	Measure
	SLS 4 limit speed exceeded in positive direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the limit speed of the safety card (limit speed SLS 4), and adjust if necessary.

Subfault: 63.5 Description: SLS 1 limit speed exceeded in negative direction of movement		
	Fault class: Warning	
	Cause	Measure
	SLS 1 limit speed exceeded in negative direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (limit speed SLS 1), and adjust if necessary.

Subfault: 63.6 Description: SLS 2 limit speed exceeded in negative direction of movement		
	Fault class: Warning	
	Cause	Measure
	SLS 2 limit speed exceeded in negative direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (limit speed SLS 2), and adjust if necessary.

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Subfault: 63.7 Description: SLS 3 limit speed exceeded in negative direction of movement		
	Fault class: Warning	
	Cause	Measure
	SLS 3 limit speed exceeded in negative direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (limit speed SLS 3), and adjust if necessary.

Subfault: 63.8 Description: SLS 4 limit speed exceeded in negative direction of movement		
	Fault class: Warning	
	Cause	Measure
	SLS 4 limit speed exceeded in negative direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (limit speed SLS 4), and adjust if necessary.

Subfault: 63.9 Description: SLS maximum speed exceeded in positive direction of movement		
	Fault class: Warning	
	Cause	Measure
	SLS maximum speed exceeded in positive direction of movement during monitoring delay.	– Check the maximum speed of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (maximum speed), and adjust if necessary.

Subfault: 63.13 Description: SLS maximum speed exceeded in negative direction of movement		
	Fault class: Warning	
	Cause	Measure
	SLS maximum speed exceeded in negative direction of movement during monitoring delay.	– Check the maximum speed of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (maximum speed), and adjust if necessary.

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Subfault: 63.17 **Description: SLS 1 limit speed exceeded in positive direction of movement during deceleration**		
	Fault class: Warning	
	Cause	Measure
	SLS 1 limit speed exceeded in positive direction of movement during deceleration.	– Check deceleration, jerk time, and ramp type of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (deceleration SLS 1, jerk time SLS 1, ramp type SLS 1), and adjust if necessary.

Subfault: 63.18 **Description: SLS 2 limit speed exceeded in positive direction of movement during deceleration**		
	Fault class: Warning	
	Cause	Measure
	SLS 2 limit speed exceeded in positive direction of movement during deceleration.	– Check deceleration, jerk time, and ramp type of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (deceleration SLS 2, jerk time SLS 2, ramp type SLS 2), and adjust if necessary.

Subfault: 63.19 **Description: SLS 3 limit speed exceeded in positive direction of movement during deceleration**		
	Fault class: Warning	
	Cause	Measure
	SLS 3 limit speed exceeded in positive direction of movement during deceleration.	– Check deceleration, jerk time, and ramp type of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (deceleration SLS 3, jerk time SLS 3, ramp type SLS 3), and adjust if necessary.

Subfault: 63.20 **Description: SLS 4 limit speed exceeded in positive direction of movement during deceleration**		
	Fault class: Warning	
	Cause	Measure
	SLS 4 limit speed exceeded in positive direction of movement during deceleration.	– Check deceleration, jerk time, and ramp type of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (deceleration SLS 4, jerk time SLS 4, ramp type SLS 4), and adjust if necessary.

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Subfault: 63.21 Description: SLS 1 limit speed exceeded in negative direction of movement during deceleration		
	Fault class: Warning	
	Cause	Measure
	SLS 1 limit speed exceeded in negative direction of movement during deceleration.	– Check deceleration, jerk time, and ramp type of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (deceleration SLS 1, jerk time SLS 1, ramp type SLS 1), and adjust if necessary.

Subfault: 63.22 Description: SLS 2 limit speed exceeded in negative direction of movement during deceleration		
	Fault class: Warning	
	Cause	Measure
	SLS 2 limit speed exceeded in negative direction of movement during deceleration.	– Check deceleration, jerk time, and ramp type of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (deceleration SLS 2, jerk time SLS 2, ramp type SLS 2), and adjust if necessary.

Subfault: 63.23 Description: SLS 3 limit speed exceeded in negative direction of movement during deceleration		
	Fault class: Warning	
	Cause	Measure
	SLS 3 limit speed exceeded in negative direction of movement during deceleration.	– Check deceleration, jerk time, and ramp type of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (deceleration SLS 3, jerk time SLS 3, ramp type SLS 3), and adjust if necessary.

Subfault: 63.24 Description: SLS 4 limit speed exceeded in negative direction of movement during deceleration		
	Fault class: Warning	
	Cause	Measure
	SLS 4 limit speed exceeded in negative direction of movement during deceleration.	– Check deceleration, jerk time, and ramp type of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (deceleration SLS 4, jerk time SLS 4, ramp type SLS 4), and adjust if necessary.

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Subfault: 63.25 Description: SSM 1 limit speed exceeded in positive direction of movement		
	Fault class: Warning	
	Cause	Measure
	SSM 1 limit speed exceeded in positive direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the limit speed of the safety card (limit speed SSM 1), and adjust if necessary.

Subfault: 63.26 Description: SSM 2 limit speed exceeded in positive direction of movement		
	Fault class: Warning	
	Cause	Measure
	SSM 2 limit speed exceeded in positive direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the limit speed of the safety card (limit speed SSM 2), and adjust if necessary.

Subfault: 63.27 Description: SSM 3 limit speed exceeded in positive direction of movement		
	Fault class: Warning	
	Cause	Measure
	SSM 3 limit speed exceeded in positive direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the limit speed of the safety card (limit speed SSM 3), and adjust if necessary.

Subfault: 63.28 Description: SSM 4 limit speed exceeded in positive direction of movement		
	Fault class: Warning	
	Cause	Measure
	SSM 4 limit speed exceeded in positive direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the limit speed of the safety card (limit speed SSM 4), and adjust if necessary.

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Subfault: 63.29

Description: SSM 1 limit speed exceeded in negative direction of movement

Fault class: Warning

Cause	Measure
SSM 1 limit speed exceeded in negative direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the limit speed of the safety card (limit speed SSM 1), and adjust if necessary.

Subfault: 63.30

Description: SSM 2 limit speed exceeded in negative direction of movement

Fault class: Warning

Cause	Measure
SSM 2 limit speed exceeded in negative direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the limit speed of the safety card (limit speed SSM 2), and adjust if necessary.

Subfault: 63.31

Description: SSM 3 limit speed exceeded in negative direction of movement

Fault class: Warning

Cause	Measure
SSM 3 limit speed exceeded in negative direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the limit speed of the safety card (limit speed SSM 3), and adjust if necessary.

Subfault: 63.32

Description: SSM 4 limit speed exceeded in negative direction of movement

Fault class: Warning

Cause	Measure
SSM 4 limit speed exceeded in negative direction of movement.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the limit speed of the safety card (limit speed SSM 4), and adjust if necessary.

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Subfault: 63.33

Description: SSx maximum speed exceeded in positive direction of movement

Fault class: Warning

Cause	Measure
SSx maximum speed exceeded in positive direction of movement during monitoring delay.	– Check the maximum speed of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (maximum speed), and adjust if necessary.

Subfault: 63.41

Description: SSx maximum speed exceeded in negative direction of movement

Fault class: Warning

Cause	Measure
SSx maximum speed exceeded in negative direction of movement during monitoring delay.	– Check the maximum speed of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (maximum speed), and adjust if necessary.

Subfault: 63.49

Description: SSx 1 limit speed exceeded in positive direction of movement during deceleration

Fault class: Warning

Cause	Measure
SSx 1 limit speed exceeded in positive direction of movement during deceleration.	– Check deceleration, jerk time, and ramp type of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (deceleration SSx 1, jerk time SSx 1, ramp type SSx 1), and adjust if necessary.

Subfault: 63.50

Description: SSx 2 limit speed exceeded in positive direction of movement during deceleration

Fault class: Warning

Cause	Measure
SSx 2 limit speed exceeded in positive direction of movement during deceleration.	– Check deceleration, jerk time, and ramp type of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (deceleration SSx 2, jerk time SSx 2, ramp type SSx 2), and adjust if necessary.

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Subfault: 63.57 Description: SSx 1 limit speed exceeded in negative direction of movement during deceleration		
	Fault class: Warning	
	Cause	Measure
	SSx 1 limit speed exceeded in negative direction of movement during deceleration.	– Check deceleration, jerk time, and ramp type of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (deceleration SSx 1, jerk time SSx 1, ramp type SSx 1), and adjust if necessary.

Subfault: 63.58 Description: SSx 2 limit speed exceeded in negative direction of movement during deceleration		
	Fault class: Warning	
	Cause	Measure
	SSx 2 limit speed exceeded in negative direction of movement during deceleration.	– Check deceleration, jerk time, and ramp type of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (deceleration SSx 2, jerk time SSx 2, ramp type SSx 2), and adjust if necessary.

Subfault: 63.65 Description: SSR 1 upper limit speed exceeded		
	Fault class: Warning	
	Cause	Measure
	SSR 1 upper limit speed exceeded.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (upper limit speed SSR 1), and adjust if necessary.

Subfault: 63.66 Description: SSR 2 upper limit speed exceeded		
	Fault class: Warning	
	Cause	Measure
	SSR 2 upper limit speed exceeded.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (upper limit speed SSR 2), and adjust if necessary.

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Subfault: 63.69 **Description: SSR 1 lower limit speed exceeded**	
Fault class: Warning	
Cause	Measure
SSR 1 lower speed exceeded.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (lower limit speed SSR 1), and adjust if necessary.

Subfault: 63.70 **Description: SSR 2 lower limit speed exceeded**	
Fault class: Warning	
Cause	Measure
SSR 2 lower speed exceeded.	– Check the speed setpoint of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (lower limit speed SSR 2), and adjust if necessary.

Subfault: 63.73 **Description: SSR maximum speed exceeded in positive direction of movement**	
Fault class: Warning	
Cause	Measure
SSR maximum speed exceeded in positive direction of movement during monitoring delay.	– Check the maximum speed of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (maximum speed), and adjust if necessary.

Subfault: 63.74 **Description: SSR maximum speed exceeded in negative direction of movement**	
Fault class: Warning	
Cause	Measure
SSR maximum speed exceeded in negative direction of movement during monitoring delay.	– Check the maximum speed of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (maximum speed), and adjust if necessary.

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2.11 Fault 64 Position-dependent drive safety functions

Subfault: 64.1

Description: SDI 1 limit position exceeded in blocked direction of movement

Fault class: Warning

Cause	Measure
SDI 1 limit position exceeded in blocked direction of movement.	– Check the direction of movement of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (permitted direction of movement SDI 1, tolerance SDI 1) and adjust if necessary.

Subfault: 64.2

Description: SDI 2 limit position exceeded in blocked direction of movement

Fault class: Warning

Cause	Measure
SDI 2 limit position exceeded in blocked direction of movement.	– Check the direction of movement of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (permitted direction of movement SDI 2, tolerance SDI 2) and adjust if necessary.

Subfault: 64.5

Description: SLI 1 limit position exceeded in positive direction of movement

Fault class: Warning

Cause	Measure
SLI 1 limit position exceeded in positive direction of movement.	Check the parameter setting of the safety card (position tolerance SLI 1), and adjust if necessary.

Subfault: 64.6

Description: SLI 2 limit position exceeded in positive direction of movement

Fault class: Warning

Cause	Measure
SLI 2 limit position exceeded in positive direction of movement.	Check the parameter setting of the safety card (position tolerance SLI 2), and adjust if necessary.

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Subfault: 64.9 **Description: SLI 1 limit position exceeded in negative direction of movement**		
	Fault class: Warning	
	Cause	Measure
	SLI 1 limit position exceeded in negative direction of movement.	Check the parameter setting of the safety card (position tolerance SLI 1), and adjust if necessary.

Subfault: 64.10 **Description: SLI 2 limit position exceeded in negative direction of movement**		
	Fault class: Warning	
	Cause	Measure
	SLI 2 limit position exceeded in negative direction of movement.	Check the parameter setting of the safety card (position tolerance SLI 2), and adjust if necessary.

Subfault: 64.13 **Description: SLI 1 braking distance exceeded in positive direction of movement**		
	Fault class: Warning	
	Cause	Measure
	Minimum braking distance SLI 1 exceeded in positive direction of movement.	Check the parameter setting of the safety card (deceleration SLI 1, jerk time SLI 1, ramp type SLI 1), and adjust if necessary

Subfault: 64.14 **Description: SLI 2 braking distance exceeded in positive direction of movement**		
	Fault class: Warning	
	Cause	Measure
	Minimum braking distance SLI 2 exceeded in positive direction of movement.	Check the parameter setting of the safety card (deceleration SLI 2, jerk time SLI 2, ramp type SLI 2), and adjust if necessary

Subfault: 64.17 **Description: SLI 1 braking distance exceeded in negative direction of movement**		
	Fault class: Warning	
	Cause	Measure
	Minimum braking distance SLI 1 exceeded in negative direction of movement.	Check the parameter setting of the safety card (deceleration SLI 1, jerk time SLI 1, ramp type SLI 1), and adjust if necessary

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Subfault: 64.18 Description: SLI 2 braking distance exceeded in negative direction of movement		
	Fault class: Warning	
	Cause	Measure
	Minimum braking distance SLI 2 exceeded in negative direction of movement.	Check the parameter setting of the safety card (deceleration SLI 2, jerk time SLI 2, ramp type SLI 2), and adjust if necessary

Subfault: 64.34 Description: SLI maximum speed exceeded	
Fault class: Warning	
Cause	Measure
Parameterized maximum speed exceeded with at least one active SLI drive safety function.	– Check the maximum speed of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (maximum speed), and adjust if necessary.

Subfault: 64.35 Description: SLI maximum speed exceeded in positive direction of movement	
Fault class: Warning	
Cause	Measure
Parameterized maximum speed exceeded with at least one active SLI drive safety function.	– Check the maximum speed of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (maximum speed), and adjust if necessary.

Subfault: 64.36 Description: SLI maximum speed exceeded in negative direction of movement	
Fault class: Warning	
Cause	Measure
Parameterized maximum speed exceeded with at least one active SLI drive safety function.	– Check the maximum speed of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (maximum speed), and adjust if necessary.

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Subfault: 64.38 Description: SLI maximum position change exceeded		
	Fault class: Warning	
	Cause	Measure
	Maximum permitted position change exceeded in at least one active SLI drive safety function.	– Deactivate the SLI drive safety function, acknowledge the fault, and activate SLI again. – Check the encoder. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 64.21 Description: SOS 1 limit position exceeded in position direction of movement		
	Fault class: Warning	
	Cause	Measure
	SOS 1 limit position exceeded in positive direction of movement.	– Check the application for standstill. If necessary, adjust the controller. – Check the parameter setting of the safety card (limit position SOS 1), and adjust if necessary.

Subfault: 64.25 Description: SOS 1 limit position exceeded in negative direction of movement		
	Fault class: Warning	
	Cause	Measure
	SOS 1 limit position exceeded in negative direction of movement.	– Check the application for standstill. If necessary, adjust the controller. – Check the parameter setting of the safety card (limit position SOS 1), and adjust if necessary.

2.12 Fault 65 Other drive safety function

Subfault: 65.1 Description: SLA 1 limit acceleration exceeded in positive direction of movement		
	Fault class: Warning	
	Cause	Measure
	SLA 1 limit acceleration exceeded in positive direction of movement.	– Check the acceleration of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (limit acceleration SLA 1), and adjust if necessary.

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Subfault: 65.2 Description: SLA 2 limit acceleration exceeded in positive direction of movement		
	Fault class: Warning	
	Cause	Measure
	SLA 2 limit acceleration exceeded in positive direction of movement.	– Check the acceleration of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (limit acceleration SLA 2), and adjust if necessary.

Subfault: 65.5 Description: SLA 1 limit acceleration exceeded in negative direction of movement		
	Fault class: Warning	
	Cause	Measure
	SLA 1 limit acceleration exceeded in negative direction of movement.	– Check the acceleration of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (limit acceleration SLA 1), and adjust if necessary.

Subfault: 65.6 Description: SLA 2 limit acceleration exceeded in negative direction of movement		
	Fault class: Warning	
	Cause	Measure
	SLA 2 limit acceleration exceeded in negative direction of movement.	– Check the acceleration of the application while the drive safety function is active, and adjust if necessary. – Check the parameter setting of the safety card (limit acceleration SLA 2), and adjust if necessary.

2.13 Fault 66 Safety-related fault

Subfault: 66.1 Description: Data storage problem during firmware update		
	Fault class: Warning	
	Cause	Measure
	Data storage problem during firmware update.	If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

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Subfault: 66.2

Description: Faulty firmware signature

Fault class: System error

Cause	Measure
Failed to confirm firmware.	– Confirm the firmware signature again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 66.30

Description: Permanent error acknowledgement

Fault class: Warning

Cause	Measure
Permanent acknowledgement signal detected.	Check the wiring.

Subfault: 66.31

Description: F-DI Permanent unlatching signal

Fault class: Warning

Cause	Measure
Permanent F-DI unlatching signal detected.	Make sure the F-DI latching signal is not present permanently.

Subfault: 66.32

Description: Safety key error

Fault class: System error

Cause	Measure
Safety key defective, incompatible, or not connected with safety card.	– Make sure that the safety key is plugged. – If the fault occurs repeatedly, contact SEW- EURODRIVE Service.

Subfault: 66.33

Description: Safety key data set error

Fault class: System error

Cause	Measure
Error while reading or writing data set on safety key.	Transfer the data set to the safety card again using the "Assist CS.." tool.

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Subfault: 66.34 Description: Data storage warning		
	Fault class: Warning	
	Cause	Measure
	Warning or error message issued while storing data.	– Reset the device to delivery state. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 66.35 Description: Data storage plausibility check failed		
	Fault class: Critical fault	
	Cause	Measure
	Values of data storage do not match expected values.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 66.36 Description: Faulty hardware ID		
	Fault class: Critical fault	
	Cause	Measure
	Hardware defective.	Replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 66.38 Description: Faulty application parameter setting		
	Fault class: System error	
	Cause	Measure
	Faulty application parameters read from data memory.	Transfer the data set to the safety card again using the "Assist CS.." tool.

Subfault: 66.39 Description: Faulty data from safety key		
	Fault class: System error	
	Cause	Measure
	Faulty data read from safety key.	Transfer the data set to the safety card again using the "Assist CS.." tool.

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Subfault: 66.40 **Description: Error saving application parameters**		
	Fault class: System error	
	Cause	Measure
	Error saving application parameters.	Transfer the data set to the safety card again using the "Assist CS.." tool.

Subfault: 66.41 **Description: Error saving key**		
	Fault class: System error	
	Cause	Measure
	Error saving key to safety key.	Transfer the data set to the safety card again using the "Assist CS.." tool.

Subfault: 66.42 **Description: Error saving F-slave configuration**		
	Fault class: System error	
	Cause	Measure
	Error while saving F-slave configuration to safety key.	Transfer the data set to the safety card again using the "Assist CS.." tool.

Subfault: 66.43 **Description: Corrupt data while reading F-slave configuration**		
	Fault class: System error	
	Cause	Measure
	Faulty F-slave configuration data read from safety key.	Transfer the F-slave configuration to the safety card again using the "Assist CS.." tool.

Subfault: 66.44 **Description: Access to data memory failed**		
	Fault class: Critical fault	
	Cause	Measure
	Access to data memory not possible.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

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Subfault: 66.46

Description: Compatibility error

Fault class: System error

Cause	Measure
Basic unit not compatible with safety card.	If the fault occurs repeatedly, replace the basic device and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 66.47

Description: Incompatible non-volatile memory – basic initialization

Fault class: System error

Cause	Measure
Scope of parameters of software changed after update and is no longer compatible with parameter setting in non-volatile data memory.	– Perform a basic initialization of the safety card. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 66.48

Description: Acknowledgment required after parameter set restore

Fault class: System error

Cause	Measure
Parameter set restored using non-safe communication.	Acknowledge the fault.

Subfault: 66.49

Description: Acknowledgment required after delivery state

Fault class: System error

Cause	Measure
Safety card reset to delivery state.	Acknowledge the fault.

Subfault: 66.50

Description: Incompatible data from safety key

Fault class: System error

Cause	Measure
Incompatible device version or device variant written to safety key.	Transfer the data set to the safety card again using the "Assist CS.." tool.

Subfault: 66.90

Description: Acknowledgment missing for restart

Fault class: System error

Cause	Measure
Acknowledging message required for restart.	Acknowledge the safety card.

Subfault: 66.91 **Description: Parameter setting with non-acknowledged fault**		
	Fault class: System error	
	Cause	Measure
	Parameterization or validation performed while fault is pending.	Acknowledge the fault.

Subfault: 66.93 **Description: External watchdog fault**		
	Fault class: System error	
	Cause	Measure
	External watchdog tripped.	– Acknowledge the fault. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 66.94 **Description: Error during external watchdog diagnostics**		
	Fault class: System error	
	Cause	Measure
	Error detected during external watchdog diagnostics.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 66.100 **Description: Power-on signal**		
	Fault class: Message	
	Cause	Measure
	Power-on signal	For information only.

Subfault: 66.101 **Description: Acknowledgement message**		
	Fault class: Message	
	Cause	Measure
	All error messages that can be acknowledged are reset.	For information only.

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Subfault: 66.110 Description: Fault history overflow		
	Fault class: Message	
	Cause	Measure
	Overflow (data loss) in fault history.	For information only.

Subfault: 66.120 Description: Muting activation		
	Fault class: Message	
	Cause	Measure
	Muting has been activated.	For information only.

Subfault: 66.130 Description: Invalid production data		
	Fault class: Message	
	Cause	Measure
	Production data invalid in one of the two data sets. Repair started.	For information only.

Subfault: 66.140 Description: Activation of start inhibit		
	Fault class: Message	
	Cause	Measure
	Start inhibit has been activated by one of the following actions: – Switching on the device. – Ending emergency mode. – Setting parameters when limit values are violated. – Setting parameters while the brake test is active.	Acknowledge fault or activate muting.

Subfault: 66.150 Description: Faulty data (signature) from data memory		
	Fault class: Message	
	Cause	Measure
	Faulty data (signature) read from data memory. Data corrected.	For information only.

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Subfault: 66.160 Description: Faulty data (master password) from data memory		
	Fault class: Message	
	Cause	Measure
	Failed to read master password from data memory.	For information only.

Subfault: 66.170 Description: Parameter setting completed		
	Fault class: Log	
	Cause	Measure
	Parameters have been set.	For information only.

Subfault: 66.171 Description: Report created		
	Fault class: Log	
	Cause	Measure
	The report has been created.	For information only.

Subfault: 66.172 Description: Acceptance confirmed		
	Fault class: Log	
	Cause	Measure
	Acceptance confirmed.	For information only.

2.14 Fault 67 Safe communication

Subfault: 67.10 Description: SafeCom control byte		
	Fault class: Warning	
	Cause	Measure
	Error detected in the communication network of SEW-EURODRIVE. Safe communication nodes not configured correctly.	– Make sure that the same safety protocol has been set in fieldbus master and fieldbus slave. – Make sure that the communication channel between fieldbus master and fieldbus slave has been configured correctly.

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Subfault: 67.20 **Description: Safety protocol system error**		
	Fault class: System error	
	Cause	Measure
	Safety protocol signaled system error.	– Acknowledge the fault. – Restart safe communication. – If the fault occurs again, switch the device off and on again. – If the fault occurs repeatedly, contact SEW- EURODRIVE Service.

Subfault: 67.21 **Description: Safety protocol warning**		
	Fault class: Warning	
	Cause	Measure
	Safety protocol signaled warning.	– Acknowledge the warning. – Restart safe communication. – If the warning occurs again, switch the device off and on again. – If the warning occurs repeatedly, contact SEW-EURODRIVE Service.

Subfault: 67.22 **Description: Faulty configuration of process data lengths**		
	Fault class: Warning	
	Cause	Measure
	Configured process data lengths of safety protocol in fieldbus master do not match expected lengths.	– Check the configuration of the communication parameters of the safety card. – Acknowledge the warning. – Restart safe communication. – If the warning occurs again, switch the device off and on again. – If the warning occurs repeatedly, contact SEW-EURODRIVE Service.

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Subfault: 67.23 **Description: Configuration error**		
	Fault class: System error	
	Cause	Measure
	Error in configuration of safety protocol.	– Check the configuration of the communication parameters of the safety card. – Acknowledge the warning. – Restart safe communication. – If the warning occurs again, switch the device off and on again. – If the warning occurs repeatedly, contact SEW-EURODRIVE Service.

Subfault: 67.24 **Description: Cyclic data exchange error**		
	Fault class: System error	
	Cause	Measure
	Cyclic data exchange error.	– Acknowledge the warning. – Restart safe communication. – If the warning occurs again, switch the device off and on again. – If the warning occurs repeatedly, contact SEW-EURODRIVE Service.

Subfault: 67.26 **Description: Version error**		
	Fault class: Warning	
	Cause	Measure
	Communication partner version not supported.	– Switch the device off and on again. – If the fault occurs repeatedly, contact SEW-EURODRIVE Service.

Subfault: 67.27 **Description: Incompatibility error during communication**		
	Fault class: Warning	
	Cause	Measure
	Incompatibility/software error in one of the communication partners (with correct telegram CRC).	– Switch the device off and on again. – If the fault occurs repeatedly, contact SEW- EURODRIVE Service.

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Subfault: 67.28 **Description: Timeout**		
	Fault class: Warning	
	Cause	Measure
	Safety protocol signaled timeout.	– Make sure that the communication path is not interrupted (cables, voltages, load). – Make sure that the communication channel between fieldbus master and fieldbus slave has been configured correctly. – Make sure that the monitoring times set in the fieldbus master are not too short.

Subfault: 67.29 **Description: F-PI data too short**		
	Fault class: System error	
	Cause	Measure
	F-profile variant needs more data than has been received.	– Check the parameter setting of the safe controller. – Make sure that the slot of the HW configuration accommodates the proper F-module of the device description file (GSDML file).

Subfault: 67.100 **Description: Safety protocol message**		
	Fault class: Message	
	Cause	Measure
	Safety protocol signaled receipt of zero telegram or connection not established correctly.	– Acknowledge the message. – If the message occurs again, check the communication channel.

2.15 Fault 68 Safe communication profile

Subfault: 68.5 **Description: Wrong connection ID**		
	Fault class: Warning	
	Cause	Measure
	Connection established with wrong communication partner.	– Set the same connection ID in the fieldbus master and the fieldbus slave. – Make sure that the communication channel between fieldbus master and fieldbus slave has been configured correctly.

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Subfault: 68.6

Description: Wrong ISOFAST® protocol format

Fault class: Warning

Cause	Measure
Wrong protocol parameters.	– Set the same ISOFAST® protocol format in the fieldbus master and the fieldbus slave. – Make sure that the communication channel between fieldbus master and fieldbus slave has been configured correctly.

Subfault: 68.7

Description: Wrong CRC value of telegram

Fault class: Warning

Cause	Measure
– Wrong safe communication profile used. – Wrong data lengths set/transferred. – Protocol not set correctly. – Communication path distorted.	– Set the same safe communication profile in the fieldbus master and the fieldbus slave. – Make sure that the communication channel between fieldbus master and fieldbus slave has been configured correctly. – Make sure that all cables are routed properly and all safety cards are connected properly.

Subfault: 68.8

Description: Different configuration in fieldbus master and fieldbus slave

Fault class: Warning

Cause	Measure
Fieldbus master expects another configuration than set in fieldbus slave.	– Make sure that the parameter CRC (Par CRC bus) from the report has been entered correctly in the fieldbus master. – Set the same safe communication profile in the fieldbus master and the fieldbus slave.

Subfault: 68.10

Description: Configuration and application of fieldbus slave not plausible

Fault class: Warning

Cause	Measure
Transferred configuration of fieldbus slave does not match application of fieldbus slave.	Make sure that the parameter setting for the fieldbus slave is plausible with the fieldbus slave in use.

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Subfault: 68.164

Description: Different addresses for PROFIsafe communication (F_Dest_Add)

Fault class: Message

Cause	Measure
Different addresses for PROFIsafe communication (F_Dest_Add) in fieldbus master and fieldbus slave.	Set the same address for PROFIsafe communication (F_Dest_Add) in the fieldbus master and fieldbus slave.

Subfault: 68.165

Description: Invalid address for PROFIsafe communication (F_Dest_Add)

Fault class: Message

Cause	Measure
Invalid PROFIsafe communication address (F_Dest_Add).	Set a valid address for PROFIsafe communication (F_Dest_Add).

Subfault: 68.166

Description: Invalid failsafe source address (F_Source_Add)

Fault class: Message

Cause	Measure
Failsafe source address (F_Source_Add) not valid or different failsafe source addresses detected in fieldbus master and fieldbus slave.	– Set a valid failsafe source address (F_Source_Add). – Set the same failsafe source address in the fieldbus master and fieldbus slave.

Subfault: 68.167

Description: Invalid watchdog time for PROFIsafe communication

Fault class: Message

Cause	Measure
Watchdog time for PROFIsafe communication (F_WD_Time, F_WD_Time_2) is 0 ms.	Set a valid watchdog time for PROFIsafe communication (F_WD_Time, F_WD_Time_2) in the fieldbus master.

Subfault: 68.168

Description: Safety class (SIL) of application higher than safety class (F_SIL) of device

Fault class: Message

Cause	Measure
Safety class (SIL) of application exceeded safety class (F_SIL) of device.	Check the safety parameters in the configuration tool of the fieldbus master.

Subfault: 68.169

Description: Different CRC lengths (F_CRC_Length)

Fault class: Message

Cause	Measure
Parameterwert "F_CRC_Length" stimmt nicht mit dem generierten Wert überein.	Check the safety parameters in the configuration tool of the fieldbus master.

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Subfault: 68.170

Description: Wrong version of safety parameter data set

Fault class: Message

Cause	Measure
Wrong version of safety parameter data set.	Check the safety parameters in the configuration tool of the fieldbus master.

Subfault: 68.171

Description: Error due to inconsistent safety parameters

Fault class: Message

Cause	Measure
Data of received safety parameters not consistent.	Check the safety parameters in the configuration tool of the fieldbus master.

Subfault: 68.172

Description: Faulty device information

Fault class: Message

Cause	Measure
Faulty device specification or diagnostics information.	– Acknowledge the warning. – Establish safe communication again. – If the warning occurs repeatedly, switch the device off and on again. For further support, contact SEW-EURODRIVE Service.

Subfault: 68.175

Description: Inconsistent parameter CRC (iPar_CRC)

Fault class: Message

Cause	Measure
Inconsistent parameter CRC (iPar_CRC).	Check the safety parameters in the configuration tool of the fieldbus master.

Subfault: 68.176

Description: Safety parameter "F_Block_ID" not supported

Fault class: Message

Cause	Measure
Safety parameter "F_Block_ID" not supported.	Check the safety parameters in the configuration tool of the fieldbus master.

Subfault: 68.177

Description: Error due to transfer of inconsistent data

Fault class: Message

Cause	Measure
Data of sent safety parameters not consistent.	Check the safety parameters in the configuration tool of the fieldbus master.

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Subfault: 68.178 Description: Watchdog time exceeded while transferring data		
	Fault class: Message	
	Cause	Measure
	Watchdog time exceeded (F_WD_Time, F_WD_Time_2) while transferring data.	Check the safety parameters in the configuration tool of the fieldbus master.

2.16 Fault 69 Micro controller or diagnostics error

Subfault: 69.1 Description: Processor error	
Fault class: System error	
Cause	Measure
Error in processor.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 69.2 Description: Flash memory error	
Fault class: Critical fault	
Cause	Measure
Error in flash memory.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Description: SRAM memory error	
Fault class: Critical fault	
Cause	Measure
Error in SRAM memory.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

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Subfault: 69.4 Description: Configuration register error		
	Fault class: Critical fault	
	Cause	Measure
	Error detected in configuration registers of processor.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 69.100 Description: Memory error of safety parameters		
	Fault class: Message	
	Cause	Measure
	Error in the safety parameter memory.	– Switch the device off and on again. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

2.17 Fault 70 Safe brake system

Subfault: 70.1 Description: Safe brake test aborted. Enable signal fault.		
	Fault class: System error	
	Cause	Measure
	Enable signal deactivated during the safe brake test.	Make sure that the enable signal remains active during the safe brake test.

Subfault: 70.2 Description: Safe brake test aborted. Request fault brake.		
	Fault class: System error	
	Cause	Measure
	Basic unit requested brake application during safe brake test.	Make sure that no drive function is activated or no axis is in fault status.

Subfault: 70.3 Description: Safe brake test aborted. Drive safety function fault.		
	Fault class: System error	
	Cause	Measure
	Instance of drive safety functions STO/SBC, SOS, SSx, SSR, SDI or SLI activated during the safe brake test.	Make sure that no drive safety function is activated while the brake test is active (only SLS/SSM or SLA are permitted).

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Subfault: 70.4 Description: Safe brake test aborted. Load torque fault.		
	Fault class: System error	
	Cause	Measure
	Measured load torque outside configured tolerance.	Make sure that the load torque matches the settings during the brake test.

Subfault: 70.5 Description: Safe brake test aborted. Test torque not reached.		
	Fault class: Warning	
	Cause	Measure
	Basic unit does not deliver parameterized test torque.	– Check the settings of the basic unit, and adjust if necessary. – Make sure the device can deliver enough power.

Subfault: 70.6 Description: Safe brake test aborted. Fault maximum travel distance in direction of movement.		
	Fault class: System error	
	Cause	Measure
	Maximum travel distance in direction of movement exceeded.	– Choose a sufficiently long maximum travel distance (travel distance > retraction distance + position tolerance). – Check the direction of movement and correct if necessary. – Make sure that the movement can be performed and the drive does not slip.

Subfault: 70.7 Description: Safe brake test aborted. Fault maximum travel distance in opposite direction of movement.		
	Fault class: System error	
	Cause	Measure
	Maximum travel distance in opposite direction of movement exceeded.	– Choose a sufficiently long maximum travel distance (travel distance > retraction distance + position tolerance). – Check the direction of movement and correct if necessary. – Make sure that the movement can be performed and the drive does not slip.

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Subfault: 70.9 **Description: Safe brake test aborted. Fault retraction distance exceeded.**		
	Fault class: System error	
	Cause	Measure
	The deviation of the actual retraction distance is greater than permitted in the setting "Position tolerance for retraction distance".	– Check the settings of the basic unit, and adjust if necessary. – Check the value of the parameter "Position tolerance for retraction distance", and adjust if necessary. – Make sure the device can deliver enough power.

Subfault: 70.10 **Description: Safe brake test aborted. Fault FCB 23.**		
	Fault class: System error	
	Cause	Measure
	FCB with higher priority than FCB 23 activated in the basic unit.	Do not activate an FCB in the basic unit with a higher priority than FCB 23 while the safe brake test is running.

Subfault: 70.11 **Description: Safe brake test aborted. Faulty communication with basic unit.**		
	Fault class: System error	
	Cause	Measure
	Timeout error in communication with basic unit.	– Repeat the brake tests. – If the fault occurs repeatedly, replace the safety card and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

Subfault: 70.12 **Description: Safe brake test aborted. Faulty assignment SBC drive safety function.**		
	Fault class: System error	
	Cause	Measure
	SBC drive safety function not assigned to safe digital output F-DO.	– Check the parameter setting of the safety card. – Assign the SBC drive safety function to one of the safe digital outputs F-DO and connect the brake control (e.g. BST) to it.

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Subfault: 70.13

Description: Safe brake test aborted. Fault in movement at standstill.

Fault class: System error

Cause	Measure
Maximum movement permitted at standstill exceeded. Brake or basic unit cannot hold the load torque.	– Check "Permitted movement at standstill", and correct if necessary. – Make sure that brake control is correct. – Make sure that the basic unit provides the required power. – Make sure that the brake can hold the load torque and the test torque.

Subfault: 70.14

Description: Safe brake test aborted. Minimum speed fault.

Fault class: System error

Cause	Measure
Speed greater than parameterized minimum speed detected at end of retraction distance.	– Check the settings of the safety card, and adjust if necessary. – Check the settings of the basic unit, and adjust if necessary. – Make sure the basic unit is not subject to overload.

Subfault: 70.15

Description: Safe brake test aborted. Minimum speed fault.

Fault class: System error

Cause	Measure
Speed greater than parameterized minimum speed detected when activating brake test.	Check the minimum speed, and adjust if necessary.

Subfault: 70.16

Description: Safe brake test aborted. Fault in effective direction of test torque.

Fault class: System error

Cause	Measure
Wrong effective direction of torque delivered by basic unit.	– Check the settings of the basic unit, and adjust if necessary. – Check the settings for direction of rotation reversal, and adjust if necessary.

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Subfault: 70.17

Description: Safe brake test aborted. Fault in safety card status.

Fault class: System error

Cause	Measure
Safety card parameterized via "Assist CS.." parameter setting tool or acceptance report created while safe brake test is running.	– Acknowledge the fault. – Restart the brake test. – Do not parameterize the safety card while the brake test is running. – Do not create the acceptance report while the brake test is running.

Subfault: 70.18

Description: Safe brake test aborted. Fault acknowledgement fault.

Fault class: System error

Cause	Measure
Fault acknowledged during safe brake test.	Deactivate the brake test before acknowledging the fault.

Subfault: 70.19

Description: Safe brake test aborted. Drive safety function signals limit violation.

Fault class: System error

Cause	Measure
Limit violation signaled by drive safety function active at the same time (e.g. SLS) during safe brake test.	– Check which drive safety function signaled the limit violation. – Refer to the measures in the fault description to eliminate the fault.

Subfault: 70.20

Description: Safe brake test aborted. Safety card fault.

Fault class: System error

Cause	Measure
Fault detected by safety card during safe brake test.	– Check which fault has occurred. – Refer to the measures in the fault description to eliminate the fault.

Subfault: 70.22

Description: Safe brake test aborted. Fault while checking load torque.

Fault class: System error

Cause	Measure
Failed to check load torque while executing safe brake test. Cannot determine load torque.	– Extend the duration of the individual test steps. – Disable load torque checking (load torque = 0).

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Subfault: 70.23 **Description: Safe brake test aborted. Fault in measured values.**		
	Fault class: System error	
	Cause	Measure
	Failed to determine load torque while safe brake test is running.	– Extend the duration of the individual test steps. – If the fault occurs repeatedly, replace the device and send it together with the fault number to SEW-EURODRIVE. For further support, contact SEW-EURODRIVE Service.

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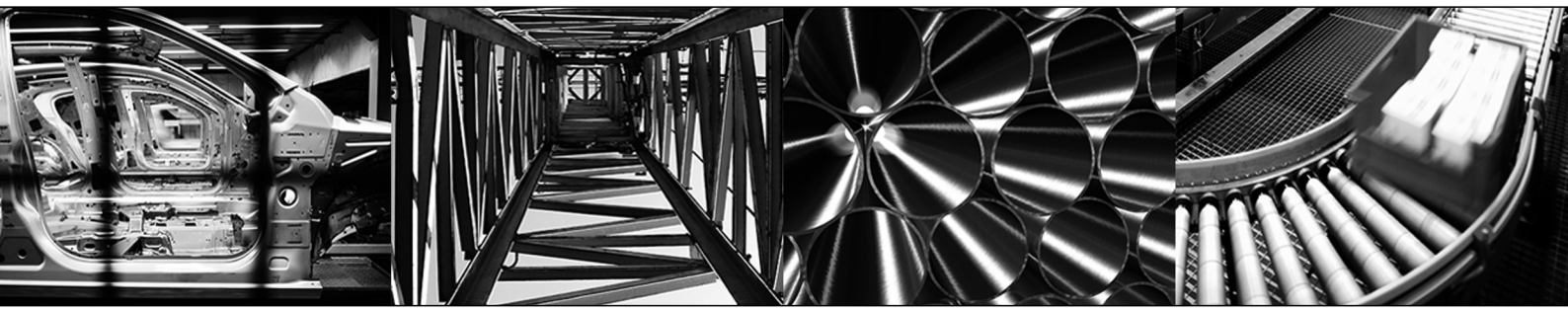

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