Error list

System:	SMX
Document:	Error list SMX
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Prepared by:	S. Truckenbrodt
Released by:	S. Brust

Content

1 General

1.1 Technical status

This error list is valid for all SMX devices of the Compact series up to and including:

Firmware Version
05-00-06-49

1.2 SMX error types

The SMX distinguishes two types of errors in accordance with the following allocation:

Error type	Description	Impact on the system	Reset condition
Fatal Error	Fatal exception caused by an internal program or hardware failure SMX. Safe operation is no longer possible. The last active process is the operation of the 7 segment display by system A. System B is in the "Stop" mode.	All outputs will be switched off!	Resettable by switching off/on the SMX(POR).
Alarm	Functional error, caused by an external process. Both systems keep on running in a cyclical manner and fulfill all requirements of the communication interfaces. The scanning of the external process will also be maintained.	All outputs will be switched off!	Reset by parametrizable input
ECS Alarm	When using the ECS function on the programming interface, the sensor alarm messages are marked with 'E' instead of 'A'.	ECS-function block result is „0"	Reset by parametrizable input

Identification of the errors in System A and System B:
- System A: odd-numbered
- System B: even-numbered

1.3   Display of the error types

The error number is shown on the 7-segment display on the front of the module. There are two sequences for displaying error numbers.

SMX <u>without</u> expansion assembly groups

F, A or E   Error number

SMX <u>with</u> expansion assembly groups

F, A or E   1)   Error number

Note 1) 0: Basic assembly group
1: expansion assembly group with logical address 1
2: expansion assembly group with logical address 2

1.4   Alarm Muting

Several functions exist to muted alarm messages:
- ICS: Muting of digital input related alarms
- ACS: Muting of analog input related alarms
- ECS: Muting of encoder input alarms

If an error can be muted using one of the latter functions it is marked inside the error description.

⚠️	Suppressing an alarm using one of the muting functions can have a negative impact on the safety of the application and can only be done after evaluating the safety regulations! Solving the cause of the error must be preferred to muting the alarm.

2 Alarm list

Alarm Code	A 1212
Alarm message	SD card with new application program was found
Cause	A new application program on the inserted SD card is ready to be loaded. The system is waiting for user confirmation
Error correction	• Double-Press the reset button to store the application program on the device. • Remove the SD card if you do not want to change the application

Alarm Code	A 2101 / A 2102
Alarm message	Timeout receipt telegram SMX31 (address 1)
Cause	Telegram of expansion assembly group not received in time
Error correction	• Check configuration of extension devices • Check physical connection to extension devices • Check address switch on extension devices • Power Cycle of all connected devices

Alarm Code	A 2105 / A 2106
Alarm message	CRC error transmission telegram SMX31 (address 1)
Cause	Transmission telegram incorrect
Error correction	• Check configuration of extension devices • Check physical connection to extension devices • Check address switch on extension devices • Power Cycle of all connected devices

Alarm Code	A 2107 / A 2108
Alarm message	CRC error transmission telegram
Cause	Transmission telegram incorrect
Error correction	• Check configuration of extension devices • Check physical connection to extension devices • Check address switch on extension devices • Power Cycle of all connected devices

Alarm Code	A 2109 / A 2110
Alarm message	CRC error receipt telegram
Cause	Receipt telegram incorrect
Error correction	• Check configuration of extension devices • Check physical connection to extension devices • Check address switch on extension devices • Power Cycle of all connected devices

Alarm Code	A 2111
Alarm message	Timeout communication with expansion assembly group SMX31 (address 1)
Cause	Incorrect Installation of expansion assembly group
Error correction	• Check configuration of extension devices • Check physical connection to extension devices • Check address switch on extension devices • Power Cycle of all connected devices

Alarm Code	A 2113
Alarm message	Expansion assembly group SMX31 (address 1) existing but not configured
Cause	Incorrect configuration
Error correction	• Check configuration of extension devices • Check physical connection to extension devices • Check address switch on extension devices • Power Cycle of all connected devices

Alarm Code	A 2115 / A2116
Alarm message	Expansion assembly group SMX31 has incorrect logical address
Cause	Incorrect configuration
Error correction	• Check configuration of extension devices • Check physical connection to extension devices • Check address switch on extension devices • Power Cycle of all connected devices

Alarm Code	A 2121 / A 2122
Alarm message	Timeout receipt telegram SMX31 (address 2)
Cause	Telegram of expansion assembly group not received in time
Error correction	• Check configuration of extension devices • Check physical connection to extension devices • Check address switch on extension devices • Power Cycle of all connected devices

Alarm Code	A 2125 / A 2126
Alarm message	CRC error transmission telegram SMX31 (address 2)
Cause	Transmission telegram incorrect
Error correction	• Check configuration of extension devices • Check physical connection to extension devices • Check address switch on extension devices • Power Cycle of all connected devices

Alarm Code	A 2131
Alarm message	Timeout communication with expansion assembly group SMX31 (address 2)
Cause	Incorrect installation of expansion assembly group
Error correction	• Check configuration of extension devices • Check physical connection to extension devices • Check address switch on extension devices • Power Cycle of all connected devices

Alarm Code	A 2133
Alarm message	Expansion assembly group SMX31 (address 2) existing but not configured
Cause	Incorrect configuration
Error correction	• Check configuration of extension devices • Check physical connection to extension devices • Check address switch on extension devices • Power Cycle of all connected devices

Alarm Code	A 2135 / A 2136
Alarm message	Timeout reading functional inputs
Cause	• Incorrect configuration • CAN telegram not received in time
Error correction	• Check configuration (CAN ID) • Check transmission time (Timeout)

Alarm Code	A 2301
Alarm message	Communication Error KI Module
Cause	Incorrect data transmission External EMC
Error correction	• Check EMC regulations • Power Cycle • Replace device

Alarm Code	A 2303
Alarm message	Timeout Communication KI Module
Cause	Incorrect data transmission External EMC
Error correction	• Check EMC regulations • Power Cycle • Replace device

Alarm Code	A 2305
Alarm message	Invalid data length in SPI transmission to KI Module
Cause	Incorrect data transmission External EMC
Error correction	• Check EMC regulations • Power Cycle • Replace device

Alarm Code	A 2307
Alarm message	Invalid identifier in SPI transmission to KI Module
Cause	Incorrect data transmission External EMC
Error correction	• Check EMC regulations • Power Cycle • Replace device

Alarm Code	A 3031 / A 3032
Alarm message	Pulse1 plausibility error on expanding input EAEx.1
Cause	This input does not have the configured Pulse1 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	A 3033 / A 3034
Alarm message	Pulse1 plausibility error on expanding input EAEx.1
Cause	This input does not have the configured Pulse2 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	A 3035 / A 3036
Alarm message	Incorrect 24V signal on EAEx.1
Cause	The input does not have a permanent 24V voltage.
Error correction	• Check voltage on digital input! • Check wiring • Check whether Pulse1 or Pulse2 is active

Alarm Code	A 3037 / A 3038
Alarm message	Pulse1 plausibility error on expanding input EAEx.2
Cause	This input does not have the configured Pulse1 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	A 3039 / A 3040
Alarm message	Pulse2 plausibility error on expanding input EAEx.2
Cause	This input does not have the configured Pulse2 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	A 3041 / A 3042
Alarm message	Fehlerhaftes 24V Signal am EAEx.2
Cause	The input does not have a permanent 24V voltage.
Error correction	• Check voltage on digital input! • Check wiring • Check whether Pulse1 or Pulse2 is active

Alarm Code	A 3043 / A 3044
Alarm message	Pulse1 plausibility error on expanding input EAEx.3
Cause	This input does not have the configured Pulse1 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	**A 3045 / A 3046**
Alarm message	Pulse2 plausibility error on expanding input EAEx.3
Cause	This input does not have the configured Pulse2 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	**A 3047 / A 3048**
Alarm message	Incorrect 24V signal on EAEx.3
Cause	The input does not have a permanent 24V voltage.
Error correction	• Check voltage on digital input! • Check wiring • Check whether Pulse1 or Pulse2 is active

Alarm Code	**A 3049 / A 3050**
Alarm message	Pulse1 plausibility error on expanding input EAEx.4
Cause	This input does not have the configured Pulse1 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	**A 3051 / A 3052**
Alarm message	Pulse2 plausibility error on expanding input EAEx.4
Cause	This input does not have the configured Pulse2 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	**A 3053 / A 3054**
Alarm message	Incorrect 24V signal on EAEx.4
Cause	The input does not have a permanent 24V voltage.
Error correction	• Check voltage on digital input! • Check wiring • Check whether Pulse1 or Pulse2 is active

Alarm Code	**A 3055 / A 3056**
Alarm message	Pulse1 plausibility error on expanding input EAEx.5
Cause	This input does not have the configured Pulse1 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	**A 3057 / A 3058**
Alarm message	Pulse2 plausibility error on expanding input EAEx.5
Cause	This input does not have the configured Pulse2 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	A 3059 / A 3060
Alarm message	Incorrect 24V signal on EAEx.5
Cause	The input does not have a permanent 24V voltage.
Error correction	• Check voltage on digital input! • Check wiring • Check whether Pulse1 or Pulse2 is active

Alarm Code	A 3061 / A 3062
Alarm message	Pulse1 plausibility error on expanding input EAEx.6
Cause	This input does not have the configured Pulse1 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	A 3063 / A 3064
Alarm message	Pulse2 plausibility error on expanding input EAEx.6
Cause	This input does not have the configured Pulse2 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	A 3065 / A 3066
Alarm message	Pulse1 plausibility error on expanding input EAEx.7
Cause	This input does not have the configured Pulse1 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	A 3067 / A 3068
Alarm message	Pulse1 plausibility error on expanding input EAEx.7
Cause	This input does not have the configured Pulse1 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	A 3069 / A 3070
Alarm message	Pulse2 plausibility error on expanding input EAEx.7
Cause	This input does not have the configured Pulse2 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	A 3071 / A 3072
Alarm message	Incorrect 24V signal on EAEx.7
Cause	The input does not have a permanent 24V voltage.
Error correction	• Check voltage on digital input! • Check wiring • Check whether Pulse1 or Pulse2 is active

Alarm Code	A 3073 / A 3074
Alarm message	Pulse1 plausibility error on expanding input EAEx.8
Cause	This input does not have the configured Pulse2 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	A 3075 / A 3076
Alarm message	Pulse2 plausibility error on expanding input EAEx.8
Cause	This input does not have the configured Pulse2 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	A 3077 / A 3078
Alarm message	Incorrect 24V signal on EAEx.8
Cause	The input does not have a permanent 24V voltage.
Error correction	• Check voltage on digital input! • Check wiring • Check whether Pulse1 or Pulse2 is active

Alarm Code	A 3079 / A 3080
Alarm message	Pulse1 plausibility error on expanding input EAEx.9
Cause	This input does not have the configured Pulse2 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	A 3081 / A 3082
Alarm message	Pulse2 plausibility error on expanding input EAEx.9
Cause	This input does not have the configured Pulse2 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	A 3083 / A 3084
Alarm message	Incorrect 24V signal on EAEx.9
Cause	The input does not have a permanent 24V voltage.
Error correction	• Check voltage on digital input! • Check wiring • Check whether Pulse1 or Pulse2 is active

Alarm Code	A 3085 / A 3086
Alarm message	Pulse1 plausibility error on expanding input EAEx.10
Cause	This input does not have the configured Pulse2 voltage.
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring

Alarm Code	A 3087 / A 3088	
Alarm message	Pulse2 plausibility error on expanding input EAEx.10	
Cause	This input does not have the configured Pulse2 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3089 / A 3090	
Alarm message	Fehlerhaftes 24V Signal am EAEx.10	
Cause	The input does not have a permanent 24V voltage.	
Error correction	• Check voltage on digital input! • Check wiring • Check whether Pulse1 or Pulse2 is active	

Alarm Code	A 3101 / A 3102	ICS
Alarm message	Pulse1 plausibility error on input DI1	
Cause	This input does not have the configured Pulse1 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3103 / A 3104	ICS
Alarm message	Pulse1 plausibility error on input DI2	
Cause	This input does not have the configured Pulse1 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3105 / A 3106	ICS
Alarm message	Pulse1 plausibility error on input DI3	
Cause	This input does not have the configured Pulse1 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3107 / A 3108	ICS
Alarm message	Pulse1 plausibility error on input DI4	
Cause	This input does not have the configured Pulse1 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3109 / A 3110	ICS
Alarm message	Pulse1 plausibility error on input DI5	
Cause	This input does not have the configured Pulse1 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3111 / A 3112	ICS
Alarm message	Pulse1 plausibility error on input DI6	
Cause	This input does not have the configured Pulse1 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3113 / A 3114	ICS
Alarm message	Pulse1 plausibility error on input DI7	
Cause	This input does not have the configured Pulse1 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3115 / A 3116	ICS
Alarm message	Pulse1 plausibility error on input DI8	
Cause	This input does not have the configured Pulse1 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3117 / A 3118	ICS
Alarm message	Pulse2 plausibility error on input DI1	
Cause	This input does not have the configured Pulse2 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3119 / A 3120	ICS
Alarm message	Pulse2 plausibility error on input DI2	
Cause	This input does not have the configured Pulse2 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3121 / A 3122	ICS
Alarm message	Pulse2 plausibility error on input DI3	
Cause	This input does not have the configured Pulse2 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3123 / A 3124	ICS
Alarm message	Pulse2 plausibility error on input DI4	
Cause	This input does not have the configured Pulse2 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

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Alarm Code	A 3125 / A 3126	ICS
Alarm message	Pulse2 plausibility error on input DI5	
Cause	This input does not have the configured Pulse2 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3127 / A 3128	ICS
Alarm message	Pulse2 plausibility error on input DI6	
Cause	This input does not have the configured Pulse2 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3129 / A 3130	ICS
Alarm message	Pulse2 plausibility error on input DI7	
Cause	This input does not have the configured Pulse2 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3131 / A 3132	ICS
Alarm message	Pulse2 plausibility error on input DI8	
Cause	This input does not have the configured Pulse2 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3133 / A 3134	ICS
Alarm message	Pulse1 plausibility error on input DI9	
Cause	This input does not have the configured Pulse1 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3135 / A 3136	ICS
Alarm message	Pulse1 plausibility error on input DI10	
Cause	This input does not have the configured Pulse1 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3137 / A 3138	ICS
Alarm message	Pulse1 plausibility error on input DI11	
Cause	This input does not have the configured Pulse1 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3139 / A 3140	ICS
Alarm message	Pulse1 plausibility error on input DI12	
Cause	This input does not have the configured Pulse1 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3141 / A 3142	ICS
Alarm message	Pulse1 plausibility error on input DI13	
Cause	This input does not have the configured Pulse1 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3143 / A 3144	ICS
Alarm message	Pulse1 plausibility error on input DI14	
Cause	This input does not have the configured Pulse1 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3147 / A 3148	ICS
Alarm message	Pulse2 plausibility error on input DI9	
Cause	This input does not have the configured Pulse2 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3149 / A 3150	ICS
Alarm message	Pulse2 plausibility error on input DI10	
Cause	This input does not have the configured Pulse2 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3151 / A 3152	ICS
Alarm message	Pulse2 plausibility error on input DI11	
Cause	This input does not have the configured Pulse2 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3153 / A 3154	ICS
Alarm message	Pulse2 plausibility error on input DI12	
Cause	This input does not have the configured Pulse2 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3155 / A 3156	ICS
Alarm message	Pulse2 plausibility error on input DI13	
Cause	This input does not have the configured Pulse2 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3157 / A 3158	ICS
Alarm message	Pulse2 plausibility error on input DI14	
Cause	This input does not have the configured Pulse2 voltage.	
Error correction	• Check the configuration of the digital input according to projection and circuit diagram • Check wiring	

Alarm Code	A 3191 / A 3192	ICS
Alarm message	Short circuit error digital inputs	
Cause	Short circuit between the digital inputs within the assembly group	
Error correction	• Power Reset • Check degree of pollution of device • Check external wiring • Replace device	

Alarm Code	A 3197 / A 3198	ICS
Alarm message	Incorrect OSSD input check	
Cause	OSSD test incorrect	
Error correction	• Check 24V input voltage of all OSSD inputs • Power Reset	

Alarm Code	A 3209 / A 3210	ECS
Alarm message	Sensor supply voltage X31 incorrect.	
Cause	• Sensor supply voltage does not correspond to the configured threshold	
Error correction	• Check configuration! • Check sensor supply voltage • Switch off/on device	

Alarm Code	A 3213 / A 3214	ECS
Alarm message	Sensor supply voltage X32 incorrect.	
Cause	• Sensor supply voltage does not correspond to the configured threshold	
Error correction	• Check configuration! • Check sensor supply voltage • Switch off/on device	

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Alarm Code	A 3225 / A 3226	ACS
Alarm message	Deviation Ain1 compared to AIn2 too big	
Cause	• Voltage difference on both analog sensors of analog input 1 • Configured threshold too low	
Error correction	• Check voltages on X25 • Check configuration threshold/input filter • Switch off/on device	

Alarm Code	A 3227 / A 3228	ACS
Alarm message	Deviation Ain3 compared to AIn4 too big	
Cause	• Voltage difference on both analog sensors of analog input 2 • Configured threshold too low	
Error correction	• Check voltages on X26 • Check configuration threshold/input filter • Switch off/on device	

Alarm Code	A 3229 / A 3230	ECS
Alarm message	Plausibility error sensor voltage incorrect	
Cause	• Sensor voltage value	
Error correction	• Check sensor voltage supply • Check wiring of sensor voltage supply • Power Cycle	

Alarm Code	A 3231 / A 3232	ACS
Alarm message	Plausibility error analog inputs incorrect	
Cause	• Error in the analog input signal	
Error correction	• Check connection analog inputs • Analogue input voltage outside of range	

Alarm Code	A 3233 / A 3234	ACS
Alarm message	Wire breakage monitoring AIN1 actuated	
Cause	• Wire breakage monitoring activated (< 1000mV)	
Error correction	• Check configuration activation/sensor • Check sensor connection	

Alarm Code	A 3235 / A 3236	ACS
Alarm message	Wire breakage monitoring AIN2 actuated	
Cause	• Wire breakage monitoring activated (< 1000mV)	
Error correction	• Check configuration activation/sensor • Check sensor connection	

Alarm Code	A 3237 / A 3238	ACS
Alarm message	Analog sensor monitoring test AIN1 has triggered	
Cause	• Faulty analog sensor • Configured test duration is too short for the response time of the sensor's bridge circuit	
Error correction	• Configuration Activation / sensor check • Check the sensor connection	

Alarm Code	A 3239 / A 3240	ACS
Alarm message	Analog sensor monitoring test AIN2 has triggered	
Cause	• Faulty analog sensor • Configured test duration is too short for the response time of the sensor's bridge circuit	
Error correction	• Configuration Activation / sensor check • Check the sensor connection	

Alarm Code	A 3301 / A 3302	ECS
Alarm message	Plausibility error speed recording axis 1	
Cause	The difference between the two speed sensors is higher than the configured switch off threshold for speed	
Error correction	• Check the theory of the distance by comparing the data in the configuration of the sensors. • Check the signals of the speed sensor • Check the correct wiring on the 9-pin encoder plug • Analyze the speed signals using the scope function • Check the parameterization of the axis (Resolution, Direction, Cutoff Threshold Speed, Filter) • Check the track for slippage or speed deviations	

Alarm Code	A 3303 / A 3304	ECS
Alarm message	Plausibility error position recording axis 1	
Cause	The difference between the two position signals is higher than the configured switch off threshold for increments	
Error correction	• Check the theory of the distance by comparing the data in the configuration of the sensors. • Check the signals of the position sensor • Check the correct wiring on the 9-pin encoder plug • Analyze the position signals using the scope function • Check the parameterization of the axis (Resolution, Direction, Cutoff Threshold Speed, Filter)	

Alarm Code	A 3307 / A 3308	ECS
Alarm message	Plausibility error incorrect position range axis 1	
Cause	The current position is outside of the configured measuring length	
Error correction	• Check the theory of the distance by comparing the data configured in the sensor adjustment • Check position signal, if applicable, correct offset • Manually drive to the preset position and execute preset	

Alarm Code	A 3309 / A 3310	ECS
Alarm message	Plausibility error incorrect speed axis 1	
Cause	• The current speed is outside of the configured maximal speed • The drive is moving above the allowed maximum speed	
Error correction	• Check configuration. • Analyse the speed course via SCOPE • Check the driveway for speed deviations • Check absolute encoders for position discontinuity if applicable	

Alarm Code	A 3313 / A 3314	ECS
Alarm message	SSI sensor error	
Cause	• Sensor switch SSI value too large within a cycle	
Error correction	• Check sensor wiring • Check sensor configuration	

Alarm Code	A 3317 / A 3318	ECS
Alarm message	Plausibility error of the signals of the incremental encoder (single and quad-counter comparison failed)	
Cause	• Signals on track A do not correspond to track B • Damaged RS485 encoder interface • Encoder operates out of encoder interface specification	
Error correction	• Check sensor wiring • Check sensor configuration • Check the level of the encoder signals • Check the maximum counter frequency of the encoder	

Alarm Code	A 3321 / A 3322	ECS
Alarm message	Plausibility error speed recording axis 2	
Cause	The difference between the two speed sensors is higher than the configured switch off threshold for speed	
Error correction	• Check the theory of the distance by comparing the data in the configuration of the sensors. • Check the signals of the speed sensor • Check the correct wiring on the 9-pin encoder plug • Analyse the speed signals using the scope function • Check the parameterization of the axis (Resolution, Direction, Cutoff Threshold Speed, Filter) • Check the track for slippage or speed deviations	

Alarm Code	A 3323 / A 3324	ECS
Alarm message	Plausibility error position recording axis 2	
Cause	The difference between the two position signals is higher than the configured switch off threshold for increments	
Error correction	• Check the theory of the distance by comparing the data in the configuration of the sensors. • Check the signals of the position sensor • Check the correct wiring on the 9-pin encoder plug • Analyse the position signals using the scope function • Check the parameterization of the axis (Resolution, Direction, Cutoff Threshold Speed, Filter)	

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Alarm Code	A 3327 / A 3328	ECS
Alarm message	Plausibility error incorrect position range axis 2	
Cause	The current position is outside of the configured measuring length	
Error correction	• Check the theory of the distance by comparing the data configured in the sensor adjustment • Check position signal, if applicable, correct offset • Manually drive to the preset position and execute preset	

Alarm Code	A 3329 / A 3330	ECS
Alarm message	Plausibility error incorrect speed axis 2	
Cause	• The current speed is outside of the configured maximal speed • The drive is moving above the allowed maximum speed	
Error correction	• Check configuration. • Analyse the speed course via SCOPE • Check the driveway for speed deviations • Check absolute encoders for position discontinuity if applicable	

Alarm Code	A 3331 / A 3332	ECS
Alarm message	Configuration error: Acceleration axis 2	
Cause	Current acceleration is outside the configured acceleration range	
Error correction	• The drive has exceeded the permissible acceleration range • Check configuration maximum speed • Analyze velocity / acceleration with SCOPE	

Alarm Code	A 3333 / A 3334	ECS
Alarm message	Plausibility error SinCos encoder	
Cause	Wrong sensor type connected	
Error correction	• Check configuration • Check sensor connector • Record and check sin/cos signals	

Alarm Code	A 3337 / A3338	ECS
Alarm message	Incremental encoder axis 2 incorrect	
Cause	• Track A does not correspond to track B	
Error correction	• Check sensor wiring • Check sensor configuration • Check and record encoder signals	

Alarm Code	A 3407 / A 3408	ECS
Alarm message	Difference level RS485 driver 1 fault (X31) A3407: TTL track B or SSI CLK A3408: TTL track A or SSI DATA	
Cause	• No encoder connection • Wrong encoder type connected	
Error correction	• Control the encoder connection • Check the encoder wiring	

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Alarm Code	A 3409 / A 3410	ECS
Alarm message	Difference level RS485 driver fault (X32). A3409: TTL Signal B or SSI CLK A3410: TTL Signal A or SSI DATA	
Cause	• No encoder connection • Wrong encoder type connected	
Error correction	• Control the encoder connection • Check the encoder wiring	

Alarm Code	A 3411 / A 3412	ECS
Alarm message	Plausibility error Sinus/Cosinus X31	
Cause	• Plausibility monitoring of detached line faulty	
Error correction	• Check sensor wiring • Sinus to Cosinus must be linear • Attenuation on Sin/Cos lines too big • Interference on Sin/Cos lines	

Alarm Code	A 3413 / A 3414	ECS
Alarm message	Plausibility error Sinus/Cosinus X32	
Cause	• Plausibility monitoring of detached line faulty	
Error correction	• Check sensor wiring • Sinus to Cosinus must be linear • Attenuation on Sin/Cos lines too big • Interference on Sin/Cos lines	

Alarm Code	A 3415 / A 3416	ECS
Alarm message	Proxy counter plausibility fault.	
Cause	Difference level monitoring on proxy switch lines failed.	
Error correction	• Check sensor wiring • Check phase shift on sensor lines • Check maximum counter frequency (see Installation Manual)	

Alarm Code	A 3417 / A 3418	ECS
Alarm message	CLK error number for SSI listener 1st axis	
Cause	• Plausibility monitoring of the number of configured CLK's	
Error correction	• Check encoder wiring • Check SSI Master configuration • Configured number of clocks has to match physical clocks from SSI master • The mono flop time must be greater than 40 µs	

Alarm Code	A 3419 / A 3420	ECS
Alarm message	CLK error number for SSI listener 2nd axis	
Cause	• Plausibility monitoring of the number of configured CLK's	
Error correction	• Check encoder wiring • Check SSI Master configuration • Configured number of clocks has to match physical clocks from SSI master • The mono flop time must be greater than 40 µs	

Alarm Code	A 3451 / A 3452	ECS
Alarm message	Incorrect resolver frequency	
Cause	• Resolver frequency is outside of admissible range. • Error of excitation frequency of resolver.	
Error correction	• Check resolver frequency if it is in the admissible range. • Check encoder wiring • Power reset	

Alarm Code	A 3453 / A 3454	ECS
Alarm message	Arithmetic mean value of resolver reference signal is out of range	
Cause	• Mean value of reference signal of resolver is outside of the admissible range.	
Error correction	• Check the connected resolver • Record and analyse the resolver signals • Check the voltage level of the resolver signals (Min, Max, Variance)	

Alarm Code	A 3455 / A 3456	ECS
Alarm message	Generic PIC error	
Cause	• HW error on the extension board • PIC controller reported generic error	
Error correction	• Check the wiring of the encoder expansion card • Check the settings for encoder X33/X34 • Power Reset • Replace Device	

Alarm Code	A 3457 / A 3458	ECS
Alarm message	Encoder reference voltage on extension board X33/X34 is incorrect (U_REF monitoring)	
Cause	• Wrong encoder wiring • HW error on extension board	
Error correction	• Check the wiring of the encoder expansion card • Check the settings for encoder X33/X34 • Power Reset • Replace Device	

Alarm Code	A 3459 / A 3460	ECS
Alarm message	The amplitude of the Sine /Cosine signals is out of range	
Cause	• Incorrect configuration of sensor • Incorrect connection of encoder • Wrong encoder signals • Interference on encoder signals	
Error correction	• Check sensor configuration • Check connections of sensors • Record encoder signals • Check EMC guidelines • Power Reset	

Alarm Code	**A 3461 / A 3462**	**ECS**
Alarm message	The PIC reports a general status error, e.g. during connection establishment or because a timeout during processing has occurred.	
Cause	• Wrong encoder signals • Defect RS485 encoder driver	
Error correction	• Power cycle of device • Check encoder signals on X33/X34 • Check encoder wiring on X33/X34 • Replace device	

Alarm Code	**A 3463 / A 3464**	**ECS**
Alarm message	Plausibility check between the analogue sine signal and the TTL levels on the Schmitt trigger output do not correspond.	
Cause	• Wrong encoder signals • Defect RS485 encoder driver	
Error correction	• Check encoder signals on X33/X34 • Check encoder wiring on X33/X34 • Power cycle of device • Record and analyze the encoder signals • Replace device	

Alarm Code	**A 3465 / A 3466**	**ECS**
Alarm message	The quotient of arithmetic mean value / quadratic mean value is outside of the admissible range.	
Cause	• Incorrect signals from sensor	
Error correction	• Check encoder signals on X33/X34 • Check encoder wiring on X33/X34 • Record and analyze the encoder signals	

Alarm Code	**A 3467 / A 3468**	**ECS**
Alarm message	Connection establishment between CPU and PIC has failed.	
Cause	• Incorrect Encoder signals • Hardware defect on X33/X34	
Error correction	• Check extension board • Check encoder input level on X33/X34 • Power Cycle • Replace device	

Alarm Code	**A 3469 / A 3470**	**ECS**
Alarm message	Resolver_Quadrant	
Cause	• Incorrect sensor signals from encoder	
Error correction	• Check the encoder connection • Check the encoder signals • Power Cycle	

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Alarm Code	A 3471 / A 3472	ECS
Alarm message	Resolver_UENC	
Cause	• Encoder supply voltage is not connected • Wrong encoder supply voltage configured	
Error correction	• Check encoder supply voltage on X17/X19 • Check configuration for encoder supply voltage monitoring on X33/X34 • Check the encoder signals • Power Cycle	

Alarm Code	A 3473 / A 3474	ECS
Alarm message	TTL/HTL signal incorrect	
Cause	• Incorrect sensor signal from encoder	
Error correction	• Check the encoder connection • Check the encoder signals • Power Cycle	

Alarm Code	A 3475 / A 3476	ECS
Alarm message	Resolver_TRACE Error	
Cause	• Counter signals of encoder are incorrect	
Error correction	• Check the encoder connection X33/X34 • Check the encoder signals • Check extension board • Power Cycle	

Alarm Code	A 3477 / A 3478	ECS
Alarm message	SSI clock error	
Cause	• Plausibility check SSI Clock (Clock missing) • Wrong clock signals on SSI Listener • SSI mono flop time out of range	
Error correction	• Clock Signal Check • Check cables • Check the configuration of the SSI Master • Record and check the SSI Signals	

Alarm Code	A 3501 / A 3502	ECS
Alarm message	PXV CRC32 Error	
Cause	• Error during transmission of PXV data from the sensor	
Error correction	• Check the encoder connection • Check the encoder signals • Check EMC regulations • Replacing the encoder	

Alarm Code	A 3503 / A 3504	ECS
Alarm message	PXV zero position	
Cause	• Too many zero positions received	
Error correction	• Check the encoder connection • Check the encoder signals • Check EMC regulations • Replacing the encoder	

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Alarm Code	A 3505 / A 3506	ECS
Alarm message	PXV zero position	
Cause	• Too many zero positions received	
Error correction	• Check the encoder connection • Check the encoder signals • Check EMC regulations • Replacing the encoder	

Alarm Code	A 3507 / A 3508	ECS
Alarm message	PXV color switching faulty	
Cause	• Unexpected color received	
Error correction	• Check the encoder connection • Check the encoder signals • Check EMC regulations • Replacing the encoder	

Alarm Code	A 3511 / A 3512	ECS
Alarm message	WCS: Invalid length	
Cause	• Unexpected length of received data	
Error correction	• Checking the encoder connection • Check the encoder settings and hardware switching of the sensor • Check EMC regulations • Replacing the encoder	

Alarm Code	A 3513 / A 3514	ECS
Alarm message	WCS: Invalid counter	
Cause	• Counter of received data invalid (package loss?)	
Error correction	• Checking the encoder connection • Check the encoder settings and hardware switching of the sensor • Check EMC regulations • Replacing the encoder	

Alarm Code	A 3515 / A 3516	ECS
Alarm message	WCS: Invalid checksum	
Cause	• Checksum of the received data invalid	
Error correction	• Checking the encoder connection • Check the encoder settings and hardware switching of the sensor • Check EMC regulations • Replacing the encoder	

Alarm Code	A 3517 / A 3518	ECS
Alarm message	WCS: Invalid address	
Cause	• Address of receive telegram invalid, does not match configuration	
Error correction	• Checking the encoder connection • Check the encoder settings and hardware switching of the sensor • Check EMC regulations • Replacing the encoder	

Alarm Code	A 3519 / A 3520	ECS
Alarm message	WCS: Error bit ERR	
Cause	• Error bit ERR is active; no position could be determined.	
Error correction	• Check the encoder connection • Check the encoder settings and hardware switchover of the sensor • Check the mounting of the sensor on the WCS rail • Check possible causes of error according to the sensor manual. • Replacing the encoder	

Alarm Code	A 3521 / A 3522	ECS
Alarm message	WCS: Error bit OUT	
Cause	• Error bit OUT is active; no position could be determined. • The sensor is located outside the WCS code rail	
Error correction	• Checking the encoder connection • Check the encoder settings and hardware switching of the sensor • Check the mounting of the sensor on the WCS rail • Check possible causes of error according to the sensor manual. • Replacing the encoder	

Alarm Code	A 3523 / A 3524	ECS
Alarm message	WCS: Error bit DB	
Cause	• Error bit DB is active • Sensor optics dirty • Code rail damaged	
Error correction	• Checking the encoder connection • Check the encoder settings and hardware switching of the sensor • Check the mounting of the sensor on the WCS rail • Check possible causes of error according to the sensor manual. • Replacing the encoder	

Alarm Code	A 3525 / A 3526	ECS
Alarm message	WCS: Supply voltage below the minimum **Note:** The supply voltages are monitored crosswise. A3525: WCS Sensor B A3526: WCS Sensor A	
Cause	• The sensor supply voltage falls below the minimum (19.2V)	
Error correction	• Checking the encoder connection • Checking the encoder supply voltage • Replacing the encoder	

Alarm Code	A 3527 / A 3528	ECS
Alarm message	WCS: Supply voltage above the maximum **Note**: The supply voltages are monitored crosswise. A3527: WCS Sensor B A3528: WCS Sensor A	
Cause	• The sensor supply voltage exceeds the maximum (28,8V)	
Error correction	• Checking the encoder connection • Checking the encoder supply voltage • Replacing the encoder	

Alarm Code	A 3551 / A 3552	ECS
Alarm message	SSI_ECE STATUS 1. axis SSI ext encoder	
Cause	• Analysis of 1. status bit is incorrect	
Error correction	• Check the encoder connection • Check the encoder signals • Check the meaning of the error bit in the encoder manual • Exchange the SSI encoder	

Alarm Code	A 3553 / A 3554	ECS
Alarm message	SSI_ECE STATUS 1. axis SSI ext encoder	
Cause	• Analysis of 2. status bit is incorrect	
Error correction	• Check the encoder connection • Check the encoder signals • Check the meaning of the error bit in the encoder manual • Exchange the SSI encoder	

Alarm Code	A 3555 / A 3556	ECS
Alarm message	SSI_ECE STATUS 1. axis SSI ext encoder	
Cause	• Analysis of 3. status bit is incorrect	
Error correction	• Check the encoder connection • Check the encoder signals • Check the meaning of the error bit in the encoder manual • Exchange the SSI encoder	

Alarm Code	A 3557 / A 3558	ECS
Alarm message	SSI_ECE STATUS 1. axis SSI ext encoder	
Cause	• Analysis of 4. status bit is incorrect	
Error correction	• Check the encoder connection • Check the encoder signals • Check the meaning of the error bit in the encoder manual • Exchange the SSI encoder	

Alarm Code	A 3559 / A 3560	ECS
Alarm message	SSI_ECE STATUS 1. axis SSI ext encoder	
Cause	• Analysis of 5. status bit is incorrect	
Error correction	• Check the encoder connection • Check the encoder signals • Check the meaning of the error bit in the encoder manual • Exchange the SSI encoder	

Alarm Code	A 3561 / A 3562	ECS
Alarm message	SSI_ECE STATUS 2. axis SSI ext encoder	
Cause	• Analysis of 1. status bit is incorrect	
Error correction	• Check the encoder connection • Check the encoder signals • Check the meaning of the error bit in the encoder manual • Exchange the SSI encoder	

Alarm Code	A 3563 / A 3564	ECS
Alarm message	SSI_ECE STATUS 2. axis SSI ext encoder	
Cause	• Analysis of 2. status bit is incorrect	
Error correction	• Check the encoder connection • Check the encoder signals • Check the meaning of the error bit in the encoder manual • Exchange the SSI encoder	

Alarm Code	A 3565 / A 3566	ECS
Alarm message	SSI_ECE STATUS 2. axis SSI ext encoder	
Cause	• Analysis of 3. status bit is incorrect	
Error correction	• Check the encoder connection • Check the encoder signals • Check the meaning of the error bit in the encoder manual • Exchange the SSI encoder	

Alarm Code	A 3567 / A 3568	ECS
Alarm message	SSI_ECE STATUS 2. axis SSI ext encoder	
Cause	• Analysis of 4. status bit is incorrect	
Error correction	• Check the encoder connection • Check the encoder signals • Check the meaning of the error bit in the encoder manual • Exchange the SSI encoder	

Alarm Code	A 3569 / A 3570	ECS
Alarm message	SSI_ECE STATUS 2. axis SSI ext encoder	
Cause	• Analysis of 5. status bit is incorrect	
Error correction	• Check the encoder connection • Check the encoder signals • Check the meaning of the error bit in the encoder manual • Exchange the SSI encoder	

Alarm Code	A 3571 / A3572	ECS
Alarm message	SSI STATUS 1. axis SSI encoder	
Cause	• Analysis of 1. status bit is incorrect	
Error correction	• Check the encoder connection • Check the encoder signals • Check the meaning of the error bit in the encoder manual • Exchange the SSI encoder	

Alarm Code	A 3573 / A3574	ECS
Alarm message	SSI STATUS 1. axis SSI encoder	
Cause	• Analysis of 2. status bit is incorrect	
Error correction	• Check the encoder connection • Check the encoder signals • Check the meaning of the error bit in the encoder manual • Exchange the SSI encoder	

Alarm Code	A 3575 / A3576	ECS
Alarm message	SSI STATUS 1. axis SSI encoder	
Cause	• Analysis of 3. status bit is incorrect	
Error correction	• Check the encoder connection • Check the encoder signals • Check the meaning of the error bit in the encoder manual • Exchange the SSI encoder	

Alarm Code	A 3577 / A3578	ECS
Alarm message	SSI STATUS 1. axis SSI encoder	
Cause	• Analysis of 4. status bit is incorrect	
Error correction	• Check the encoder connection • Check the encoder signals • Check the meaning of the error bit in the encoder manual • Exchange the SSI encoder	

Alarm Code	A 3579 / A3580	ECS
Alarm message	SSI STATUS 1. axis SSI encoder	
Cause	• Analysis of 5. status bit is incorrect	
Error correction	• Check the encoder connection • Check the encoder signals • Check the meaning of the error bit in the encoder manual • Exchange the SSI encoder	

Alarm Code	A 3627 / A 3628
Alarm message	Error static test Highside output 1
Cause	Faulty switching of the output • Incorrect wiring (short circuit) • Hardware defect
Error correction	• Check the wiring of the output (short-circuit) • Checking the Hardware

Alarm Code	A 3629 / A 3630
Alarm message	Error static test Highside output 2
Cause	Faulty switching of the output • Incorrect wiring (short circuit) • Hardware defect
Error correction	• Check the wiring of the output (short-circuit) • Checking the Hardware

Alarm Code	A 3631 / A 3632
Alarm message	Error static test HighSide output 3
Cause	Faulty switching of the output • Incorrect wiring (short circuit) • Hardware defect
Error correction	• Check the wiring of the output (short-circuit) • Checking the Hardware

Alarm Code	A 3633 / A 3634
Alarm message	Error static test HighSide output 4
Cause	Faulty switching of the output • Incorrect wiring (short circuit) • Hardware defect
Error correction	• Check the wiring of the output (short-circuit) • Checking the Hardware

Alarm Code	A 3635 / A 3636
Alarm message	Error static test Main Switch 1 HighSide outputs 1 and 2
Cause	• Incorrect wiring (short circuit) • Hardware defect
Error correction	• Check the wiring (short circuit) • Checking the Hardware

Alarm Code	A 3637 / A 3638
Alarm message	Error static test Main Switch 2 HighSide outputs 3 and 4
Cause	• Incorrect wiring (short circuit) • Hardware defect
Error correction	• Check the wiring (short circuit) • Checking the Hardware

Alarm Code	**A 3653 / A 3654**
Alarm message	Error dynamic test Main Switch 1 HighSide outputs 1 and 2
Cause	• Incorrect wiring (short circuit) • Hardware defect
Error correction	• Check the wiring (short circuit) • Checking the Hardware

Alarm Code	**A 3655 / A 3656**
Alarm message	Error dynamic test Main Switch 2 HighSide outputs 3 and 4
Cause	• Incorrect wiring (short circuit) • Hardware defect
Error correction	• Check the wiring (short circuit) • Checking the Hardware

Alarm Code	**A 3657 / A 3658**
Alarm message	Error dynamic test HighSide 1
Cause	• Incorrect wiring (short circuit) • Hardware defect
Error correction	• Check the wiring (short circuit) • Checking the hardware

Alarm Code	**A 3659 / A 3660**
Alarm message	Error dynamic test HighSide 2
Cause	• Incorrect wiring (short circuit) • Hardware defect
Error correction	• Check the wiring (short circuit) • Checking the hardware

Alarm Code	**A 3661 / A 3662**
Alarm message	Error dynamic test HighSide 3
Cause	• Incorrect wiring (short circuit) • Hardware defect
Error correction	• Check the wiring (short circuit) • Checking the hardware

Alarm Code	**A 3663 / A 3664**
Alarm message	Error dynamic test HighSide 4
Cause	• Incorrect wiring (short circuit) • Hardware defect
Error correction	• Check the wiring (short circuit) • Checking the hardware

Alarm Code	**A 3801 / A3802**
Alarm message	Incorrect switching of output EAAx.1
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check the wiring of the outputs on extension device • Power cycle

Alarm Code	A 3803 / A3804
Alarm message	Incorrect switching of output EAAx.2
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check the wiring of the outputs on extension device • Power cycle

Alarm Code	A 3805 / A3806
Alarm message	Incorrect switching of output EAAx.3
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check the wiring of the outputs on extension device • Power cycle

Alarm Code	A 3807 / A3808
Alarm message	Incorrect switching of output EAAx.4
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check the wiring of the outputs on extension device • Power cycle

Alarm Code	A 3809 / A3810
Alarm message	Incorrect switching of output EAAx.5
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check the wiring of the outputs on extension device • Power cycle

Alarm Code	A 3811 / A3812
Alarm message	Incorrect switching of output EAAx.6
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check the wiring of the outputs on extension device • Power cycle

Alarm Code	A 3813 / A3814
Alarm message	Incorrect switching of output EAAx.7
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check the wiring of the outputs on extension device • Power cycle

Alarm Code	A 3815 / A3816
Alarm message	Incorrect switching of output EAAx.8
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check the wiring of the outputs on extension device • Power cycle

Alarm Code	A 3817 / A3818
Alarm message	Incorrect switching of output EAAx.9
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check the wiring of the outputs on extension device • Power cycle

Alarm Code	A 3819 / A3820
Alarm message	Incorrect switching of output EAAx.10
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check the wiring of the outputs on extension device • Power cycle

Alarm Code	A 4001 / A 4002
Alarm message	Anticlockwise and clockwise rotation SDI1 have been activated simultaneously
Cause	Multiple activation CW (Clockwise) and CCW (Counter clockwise) input on function block SDI1 are activated simultaneously
Error correction	• Check the logic of the SDI function blocks in the application program • Check the levels of the connected inputs for the application program • Analyse the input and logic signals using the device function block diagnosis

Alarm Code	A 4003 / A 4004
Alarm message	Anticlockwise and clockwise rotation SDI2 have been activated simultaneously
Cause	Multiple activation CW (Clockwise) and CCW (Counter clockwise) input on function block SDI2 are activated simultaneously
Error correction	• Check the logic of the SDI function blocks in the application program • Check the levels of the connected inputs for the application program • Analyse the input and logic signals using the device function block diagnosis

Alarm Code	A 4601 / A 4602
Alarm message	Monitoring range left and right of SLP1 has been activated simultaneously
Cause	Multiple activation CW (Clockwise) and CCW (Counter clockwise) input on function block SLP1 are activated simultaneously
Error correction	• Check the logic of the SLP function blocks in the application program • Check the levels of the connected inputs for the application program • Analyze the input and logic signals using the device function block diagnosis

Alarm Code	A 4603 / A 4604
Alarm message	Monitoring range left and right of SLP2 has been activated simultaneously
Cause	Multiple activation CW (Clockwise) and CCW (Counter clockwise) input on function block SLP2 are activated simultaneously
Error correction	• Check the logic of the SLP function blocks in the application program • Check the levels of the connected inputs for the application program • Analyse the input and logic signals using the device function block diagnosis

Alarm Code	A 4605 / A 4606
Alarm message	SLP1 Teach In status error
Cause	SET and QUIT input have an incorrect switching sequence
Error correction	• Check input configuration • Check switching sequence

Alarm Code	A 4607 / A 4608
Alarm message	SLP 2 Teach In status error
Cause	SET and QUIT input have an incorrect switching sequence
Error correction	• Check input configuration • Check switching sequence

Alarm Code	A 4609 / A 4610
Alarm message	SLP1 Teach In position error
Cause	Teach In position outside of measurement range
Error correction	• Check TeachIn Position • Adapt configuration of SLP block to the real physics

Alarm Code	A 4611 / A 4612
Alarm message	SLP2 Teach In position error
Cause	Teach In position outside of measurement range
Error correction	• Check TeachIn Position • Adapt configuration of SLP block to the real physics

Alarm Code	A 4613 / A 4614
Alarm message	SLP1 Teach In SOS activation error
Cause	During „teach in" the drive has operated (SOS error)
Error correction	When using the „teach in" function, the drive must be off Check whether SOS has already actuated

Alarm Code	A 4615 / A 4616
Alarm message	SLP 2 Teach In SOS activation error
Cause	During „teach in" the drive has operated (SOS error)
Error correction	When using the „teach in" function, the drive must be off Check whether SOS has already actuated

Alarm Code	A 4705
Alarm message	Faulty communication with the SD card in status "Command"
Cause	• SD card is not inserted correctly • Faulty SD card • Incompatible SD card type
Error correction	• Check the SD card • Check the SD card type • Check if SD card is inserted completely into slot • Power Cycle

Alarm Code	A 4706
Alarm message	Faulty communication with the SD card in status "Fetch"
Cause	• SD card is not inserted correctly • Faulty SD card • Incompatible SD card type
Error correction	• Check the SD card • Check the SD card type • Check if SD card is inserted completely into slot • Power Cycle

Alarm Code	A 4707
Alarm message	Error reading the SMF data from the SD card
Cause	• Faulty SD card • Incorrect formatting of the SD card
Error correction	• Check the SD card • Re-transmitter of the SMF data to the module • Check if SD card is inserted completely into slot • Power Cycle

Alarm Code	A 4801 / A 4802
Alarm message	PRF deviation Encoder 1
Cause	The PRF adjustment was done outside of a valid range.
Error correction	• Review of the physically measured and parameterized PRF positions • Careful increasing the PRF tolerance • Check the wiring of contact for PRF Enable

Alarm Code	A 4803 / A 4804
Alarm message	PRF deviation Encoder 2
Cause	The PRF adjustment was done outside of a valid range.
Error correction	• Review of the physically measured and parameterized PRF positions • Careful increasing the PRF tolerance • Check the wiring of contact for PRF Enable

Alarm Code	A 4901 / A 4902	
Alarm message	Anticlockwise and clockwise rotation SLI1 have been activated simultaneously	
Cause	Multiple activation; CW (Clockwise) and CCW (Counter clockwise) input on function block SLI2 are activated simultaneously	
Error correction	• Check the logic of the SLI function blocks in the application program • Check the levels of the connected inputs for the application program • Analyse the input and logic signals using the device function block diagnosis	

Alarm Code	A 4903 / A 4904	
Alarm message	Anticlockwise and clockwise rotation SLI2 have been activated simultaneously	
Cause	Multiple activation; CW (Clockwise) and CCW (Counter clockwise) input on function block SLI2 are activated simultaneously	
Error correction	• Check the logic of the SDI function blocks in the application program • Check the levels of the connected inputs for the application program • Analyse the input and logic signals using the device function block diagnosis	

Alarm Code	A 5001 / A 5002	ICS
Alarm message	Test deactivation digital inputs 1...14 incorrect	
Cause	Inputs are still active after deactivation	
Error correction	• Check wiring of digital inputs • Power Cycle • Replace device	

Alarm Code	A 6701 / A 6702	ICS
Alarm message	Timeout fault MET	
Cause	• Input unit with time supervision faulty	
Error correction	• Check the wiring of the input unit • Check the type of the Input element • Input element faulty	

Alarm Code	A 6703 / A 6704	
Alarm message	Timeout fault MEZ	
Cause	• Two hand control unit with time supervision faulty	
Error correction	• Check the wiring of the input unit • Check the type of the Input element • Input element faulty	

Alarm Code	A 7403 / A 7404
Error message	Overrun/Underrun process data transmission to F-Bus
Cause	Speed value or position value to be transmitted via F-bus is too high or too low for the configured resolution
Error correction	• Speed value too high / too low: parameterize 16 bit instead of 8 bit resolution • Position value too high / too low: parameterize 24-bit instead of 16-bit resolution or increase position divider • Apply a scaling factor

3   Fatal Error List SMX

Fatal Error Code	F 1001
Error message	Configuration data were loaded faultily into the supervision device
Cause	• Connection fault during the download of the program • Transmission of wrong or incomplete binary file
Error correction	• Send configuration data again • Check tooling connection • Power Cycle

Fatal Error Code	F 1003
Error message	Configuration data for software version assembly group invalid!
Cause	Assembly group has been configured with a wrong software version of the programming interface.
Error correction	• Check FW Version and Version of the application software • Configured device with released application software • Power Cycle

Fatal Error Code	F 1007
Error message	Configured device ID does not match physical device.
Cause	• A wrong device type was selected during programming • Binary data from different device type were used to send
Error correction	• Select the correct device type before programming the device • Select the necessary device variant according to your hardware requirement

Fatal Error Code	F 1009
Error message	Configured device variant does not match physical device.
Cause	• A wrong device type was selected during programming • Binary data from different device type were used to send
Error correction	• Select the correct device type before programming the device • Select the necessary device variant according to your hardware requirement

Fatal Error Code	F 1307
Error message	Error while erasing the configuration flash
Cause	-
Error correction	• Check FW Version and Version of the application software • Send the configuration again • Power Cycle • Replace device

Fatal Error Code	F 1311 / F1312
Error message	Error while erasing the configuration flash
Cause	-
Error correction	• Check FW Version and Version of the application software • Send the configuration again • Power Cycle • Replace device

Fatal Error Code	F 1314
Error message	Error while erasing the configuration flash
Cause	-
Error correction	• Check FW Version and Version of the application software • Send the configuration again • Power Cycle • Replace device

Fatal Error Code	F 1330
Error message	I2C Bus error while writing to FRAM
Cause	-
Error correction	• Power Cycle • Replace device

Fatal Error Code	F 1401 / F 1402
Error message	Test counter CRC config data
Cause	-
Error correction	• Power Cycle • Replace device

Fatal Error Code	F 1403 / F 1404
Error message	CRC of configuration data invalid!
Cause	Configuration data transmitted incorrectly
Error correction	• Check FW Version and Version of the application software • Re-compile program • Re-transmit configuration to device • Power Cycle

Fatal Error Code	F 1406
Error message	Incorrect boot
Cause	-
Error correction	• Send the configuration again • Power Cycle • Replace device

Fatal Error Code	F 1407 / F 1408
Error message	Config identifier not supported by hardware
Cause	• Programming software does not support connected hardware • Error transmitting configuration
Error correction	• Check version of programming software • Check FW Version and Version of the application software • Re-Transmit configuration data

Fatal Error Code	F 1409 / F 1410
Error message	Wrong PRF CRC No PRF data found while PRF supervision function is configured
Cause	• PRF table was not sent to device • PRF table still marked as used inside the configuration • PRF was not transferred correctly when importing function plans from older SafePLC versions
Error correction	• Insert PRF X/Y Position table in function plan, then delete them and compile again • Re-Transmit configuration to device (including PRF position tables if used) • Power Cycle

Fatal Error Code	F 1501 / F 1502
Error message	Firmware parameter CRC test counter
Cause	-
Error correction	• Power Cycle • Replace device

Fatal Error Code	F 1503 / F 1504
Error message	Wrong firmware parameter CRC
Cause	-
Error correction	• Power Cycle • Replace device

Fatal Error Code	F 1505 / F 1506
Error message	Error while sending firmware parameter to CPU B
Cause	-
Error correction	• Power Cycle • Replace device

Fatal Error Code	F 1601 / F 1602
Error message	Range check of device information incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1603 / F 1604
Error message	Range check of access data incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1605 / F 1606
Error message	Range check of EMU incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1607 / F 1608
Error message	Range check of SCA incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1609 / F 1610
Error message	Range check of SSX incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1611 / F 1612
Error message	Range check of SEL incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1613 / F 1614
Error message	Range check of SLP incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1615 / F 1616
Error message	Range check of SOS incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1617 / F 1618
Error message	Range check of SLS incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1619 / F 1620
Error message	Range check of SDI incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1621 / F 1622
Error message	Range check of SLI incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1623 / F 1624
Error message	Range check of PLC incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1625 / F 1626
Error message	Range check of switch off channel incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1627 / F 1628
Error message	Range check of outputs incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1629 / F 1630
Error message	Range check of digital inputs incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1631 / F 1632
Error message	Range check of analog input
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1633 / F 1634
Error message	Range check of sensor type incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1635 / F 1636
Error message	Range check of sensor processing incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1637 / F 1638
Error message	Range check of sensor position incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1639 / F 1640
Error message	Range check of PDM incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1641 / F 1642
Error message	Range check of adder switching incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1645 / F 1646
Error message	Range check of axis management incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1647 / F 1648
Error message	Range check of expansion assembly groups incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1649 / F 1650
Error message	Range check of PLC timer incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1651 / F 1652
Error message	Range check of system incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1653 / F 1654
Error message	Range check of connection table incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1655 / F 1656
Error message	Range check of SAC incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1657 / F 1658
Error message	Range check of diagnosis incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1659 / F 1660
Error message	Range check of DEM incorrect.
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1661 / F 1662
Error message	Range check FBus incorrect
Cause	• Incompatible application software • Error when importing old layout on new application software
Error correction	• Check FW Version and Version of the application software • Check and correct faulty blocks inside application/function plan • Delete and reinsert faulty blocks inside function plan and parameterize • Import a backup of the function block diagram with the originally used programming interface

Fatal Error Code	F 1663 / F 1664
Error message	Range check WCS incorrect
Cause	Invalid settings of the WCS system
Error correction	• The set address of both read heads must be different and between 0 and 3. • The supported baud rate is limited to 62.5 kBaud and 187.5 kBaud. • Check and correct the settings. • If necessary, adjust the DIP switches of the WCS read heads accordingly. • Install the changed configuration and restart (POR) the devices.

Fatal Error Code	F 1671 / F 1672
Error message	Range check PRF Void
Cause	No PRF reference table is present even though configuration PRF function used on the device.
Error correction	• Send PRF position table to device • Insert X/Y position tables and PRF function, then delete the inserted PRF blocks and position tables again (if no PRF is used) • Re-transmit configuration to device (including PRF data if used)

Fatal Error Code	F 1673 / F 1674
Error message	Range check PRF sorting
Cause	Entries inside PRF position table are not sorted ascendingly
Error correction	• Check PRF X/Y tables for ascending positions • Re-transmit the configuration and PRF data to device

Fatal Error Code	F 1675 / F 1676
Error message	Range check PRF steps
Cause	The distances of the reference table are too small. Should be: Table [n] - Table [n-1] > Switch-off position
Error correction	• Check PRF X/Y tables to meet requirement • Re-transmit the configuration and PRF data to device

Fatal Error Code	F 1677 / F 1678
Error message	Range check PRF tolerance
Cause	The PRF tolerance threshold is too large. Should be: PRF tolerance < switch-off threshold position / 2
Error correction	• Check PRF X/Y tables to meet requirement • Re-transmit the configuration and PRF data to device

Fatal Error Code	F 1681 / F 1682
Error message	SPM position table does not match the configuration
Cause	The configuration of the device or the PLC program does not match the stored SPM position table.
Error correction	• Recompile and transfer the configuration and SPM position table • Ensure that the SPM position table has been transferred successfully. • Power Cycle

Fatal Error Code	F 1683 / F 1684
Error message	SPM Position range invalid.
Cause	A position range in the SPM table is invalid. The start or end position is outside the measuring range or the end position is smaller than the start position.
Error correction	• Correcting the SPM position ranges • Recompile and transfer the configuration and SPM position table • Power Cycle

Fatal Error Code	F 1685 / F 1686
Error message	SPM position ranges not sorted.
Cause	The position ranges in the SPM table are not sorted in ascending order or overlap.
Error correction	• Correcting the SPM position ranges • Recompile and transfer the configuration and SPM position table • Power Cycle

Fatal Error Code	F 1687 / F 1688
Error message	No SPM position ranges available.
Cause	An SPM was used in the configuration, but no table with position ranges was found.
Error correction	• Recompile and transfer the configuration and SPM position table • Ensure that the SPM position table has been successfully transferred. • Power Cycle

Fatal Error Code	F 1689 / F 1690
Error message	The number of configured position ranges exceeds the permitted maximum.
Cause	The number of configured position ranges exceeds the permitted maximum.
Error correction	• Reduce the number of SPM position ranges used. • Recompile and transfer the configuration and SPM position table • Power Cycle

Fatal Error Code	F 2001 / F 2002
Error message	CRC of SPI cross communication CPU A-B wrong
Cause	Interference on SPI cross communication between both CPUs
Error correction	• Check wiring on device • Check EMC requirements • Power Cycle • Replace device

Fatal Error Code	F 2003 / F 2004
Error message	Timeout during transmission of configurations and firmware data
Cause	Interference on SPI cross communication between both CPUs
Error correction	• Check wiring on device • Check EMC requirements • Power Cycle • Replace device

Fatal Error Code	F 2005
Error message	Timeout cyclic cross communication
Cause	Interference on SPI cross communication between both CPUs
Error correction	• Check wiring on device • Check EMC requirements • Power Cycle • Replace device

Fatal Error Code	F 2007
Error message	Timeout synchronisation CPU B
Cause	Interference on SPI cross communication between both CPUs
Error correction	• Check wiring on device • Check EMC requirements • Power Cycle • Replace device

Fatal Error Code	F 2009
Error message	Timeout data transmission complementary channel
Cause	Interference on SPI cross communication between both CPUs
Error correction	• Check wiring on device • Check EMC requirements • Power Cycle • Replace device

Fatal Error Code	F 2011

Error message	Timeout synchronisation cycle start
Cause	-
Error correction	• Check wiring on device • Check EMC requirements • Power Cycle • Replace device

Fatal Error Code	F 3001 / F 3002
Error message	Ticker sync error
Cause	-
Error correction	• Check wiring on device • Check EMC requirements • Power Cycle • Replace device

Fatal Error Code	F 3201 / F 3202
Error message	Processor voltage 2.5V outside of defined range
Cause	• Supply voltage of assembly group incorrect! • Component error in assembly group
Error correction	• Check device supply voltage! • Check output wiring and connection of device • Switch off/on device.

Fatal Error Code	F 3203
Error message	Supply voltage 24V assembly group incorrect.
Cause	• Supply voltage of assembly group incorrect! • Component error in assembly group
Error correction	• Check device supply voltage! • Check output wiring and connection of device • Switch off/on device.

Fatal Error Code	F 3204
Error message	Internal supply voltage 5.7V incorrect.
Cause	• Supply voltage of assembly group incorrect! • Component error in assembly group
Error correction	• Check device supply voltage! • Check output wiring and connection of device • Switch off/on device.

Fatal Error Code	F 3217 / F 3218
Error message	Internal supply voltage 5V incorrect.
Cause	• Supply voltage of assembly group incorrect! • Component error in assembly group
Error correction	• Check device supply voltage! • Check output wiring and connection of device • Switch off/on device.

Fatal Error Code	F 3603 / F 3604
Error message	Incorrect switching of relay K1

Cause	Internal relay activation incorrect
Error correction	• Check output wiring of device • Check environmental conditions of device • Power Cycle • Replace Device

Fatal Error Code	F 3605 / F 3606
Error message	Incorrect switching of relay K2
Cause	Internal relay activation incorrect
Error correction	• Check output wiring of device • Check environmental conditions of device • Power Cycle • Replace Device

Fatal Error Code	F 3609
Error message	Incorrect switching of „0V" driver DO1_L
Cause	Switching status output incorrect
Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device

Fatal Error Code	F 3610
Error message	Incorrect switching of „24V" driver DO1_H
Cause	Switching status output incorrect
Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device

Fatal Error Code	F 3611
Error message	Incorrect switching of „0V" driver DO2_L
Cause	Switching status output incorrect
Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device

Fatal Error Code	F 3612
Error message	Incorrect switching of „24V" driver DO2_H
Cause	Switching status output incorrect
Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device

Fatal Error Code	F 3613
Error message	Incorrect testing of „0V" driver DO1_L
Cause	Short circuit of output with „0V"

Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device

Fatal Error Code	F 3614
Error message	Incorrect testing of „24V" driver DO1_H
Cause	Short circuit of output with „24V"
Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device

Fatal Error Code	F 3615
Error message	Incorrect testing of „0V" driver DO2_L
Cause	Short circuit of output with „0V"
Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device

Fatal Error Code	F 3616
Error message	Incorrect testing of „24V" driver DO2_H
Cause	Short circuit of output with „24V"
Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device

Fatal Error Code	F 3617
Error message	Incorrect switching power switch DO1_L
Cause	Wrong wiring on device
Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device

Fatal Error Code	F 3618
Error message	Incorrect switching power switch DO1_H
Cause	Wrong wiring on device
Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device
Error message	Internal error – please contact the manufacturer!

Fatal Error Code	F 3619
Error message	Incorrect switching power switch DO2_L
Cause	Wrong wiring on device

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Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device

Fatal Error Code	F 3620
Error message	Incorrect switching power switch DO2_H
Cause	Wrong wiring on device
Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device

Fatal Error Code	F 3621
Error message	Incorrect switching of NO/NC contact relay K1
Cause	Wrong wiring on device
Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device

Fatal Error Code	F 3622
Error message	Incorrect switching of NO/NC contact relay K2
Cause	Wrong wiring on device
Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device

Fatal Error Code	F 3623
Error message	Incorrect switching of output main switch
Cause	• Wrong wiring on device • Short circuit
Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device

Fatal Error Code	F 3625 / F3626
Error message	Incorrect switching of output main switch
Cause	• Wrong wiring on device • Short circuit
Error correction	• Check output wiring of device • Check wiring for short circuit • Power Cycle • Replace Device

Fatal Error Code	F 3665 / F 3666
Fault message	Static test loss of ground HighSide 2
Cause	• Wrong wiring (short circuit) • Hardware defect
Remedy	• Check the wiring • Power Cycle

Fatal Error Code	F 3667 / F 3668
Fault message	Static test loss of ground HighSide 4
Cause	• Wrong wiring (short circuit) • Hardware defect
Remedy	• Check the wiring • Power Cycle

Fatal Error Code	F 3669 / F 3670
Fault message	Dynamic test loss of ground HighSide 2
Cause	• Wrong wiring (short circuit) • Hardware defect
Remedy	• Check the wiring • Power Cycle

Fatal Error Code	F 3671 / F 3672
Fault message	Dynamic test loss of ground HighSide 4
Cause	• Wrong wiring (short circuit) • Hardware defect
Remedy	• Check the wiring • Power Cycle

Fatal Error Code	F 3701 / F 3702
Error message	Error comparing process images CPU A – CPU B
Cause	-
Error correction	• Check EMC requirements • Power Cycle • Replace device

Fatal Error Code	F 3821 / F 3822
Error message	Incorrect switching of output EAAx.1
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3823 / F 3824
Error message	Incorrect switching of output EAAx.2
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3825 / F 3826
Error message	Incorrect switching of output EAAx.3
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3827 / F 3828
Error message	Incorrect switching of output EAAx.4
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3829 / F 3830
Error message	Incorrect switching of output EAAx.5
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3831 / F 3832
Error message	Incorrect switching of output EAAx.6
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3833 / F 3834
Error message	Incorrect switching of output EAAx.7
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3835 / F 3836
Error message	Incorrect switching of output EAAx.8
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3837 / F 3838
Error message	Incorrect switching of output EAAx.9
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

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Fatal Error Code	F 3839 / F 3840
Error message	Incorrect switching of output EAAx.10
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3841 / F 3842
Error message	Incorrect testing of output EAAx.1
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3843 / F 3844
Error message	Incorrect testing of output EAAx.2
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3845 / F 3846
Error message	Incorrect testing of output EAAx.3
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3847 / F 3848
Error message	Incorrect testing of output EAAx.4
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3849 / F 3850
Error message	Incorrect testing of output EAAx.5
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3851 / F 3852
Error message	Incorrect testing of output EAAx.6
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3853 / F 3854
Error message	Incorrect testing of output EAAx.7
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3855 / F 3856
Error message	Incorrect testing of output EAAx.8
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3857 / F 3858
Error message	Incorrect testing of output EAAx.9
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3859 / F 3860
Error message	Incorrect testing of output EAAx.10
Cause	Short circuit of output with „24V" or „0V"
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle

Fatal Error Code	F 3871 / F 3872
Error message	Incorrect switching of power main switch 1 for outputs on extension device
Cause	-
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle • Replace Device

Fatal Error Code	F 3873 / F 3874
Error message	Incorrect switching of power main switch 2 for outputs on extension device
Cause	-
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle • Replace Device

Fatal Error Code	F 3891 / F 3892		
Error message	Incorrect switching of power main switch 1 for outputs on extension device		
Cause	-		
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle • Replace Device		

Fatal Error Code	F 3893 / F 3894		
Error message	Incorrect switching of power main switch 2 for outputs on extension device		
Cause	-		
Error correction	• Check wiring of the outputs • Check the wiring for short circuits • Power Cycle • Replace Device		

Fatal Error Code	F 4501 / F 4502		
Alarm message	Incorrect calculation of brake ramp SSX		
Cause	Calculation of brake ramp would lead to integer overrun. Incorrect configuration		
Error correction	• Check monitored sector and stopping distance • Check SSX configuration • Contact manufacturer		

Fatal Error Code	F 4701 / F 4702		
Alarm message	Faulty SMF CRC		
Cause	The registered CRC of the SMF data on the SD card does not match the calculated CRC		
Error correction	• Resend the SMF data and configuration data to the module • Check the SD card • Power Cycle		

Fatal Error Code	F 6801 / F 6802		
Error message	Invalid PLC Op Code		
Cause	-		
Error correction	• Check FW Version and Version of application software for compatibility • Re-transmit configuration • Power Cycle		

Fatal Error Code	F 6803 / F 6804		
Error message	PLC processing		
Cause	-		
Error correction	• Check FW Version and Version of application software for compatibility • Re-transmit configuration • Power Cycle		

Fatal Error Code	F 6805 / F 6806
Error message	PLC AWL
Cause	-
Error correction	• Check FW Version and Version of application software for compatibility • Re-transmit configuration • Power Cycle

Fatal Error Code	F 6807 / F 6808
Error message	PLC timer overrun/underrun
Cause	• Incompatible application software • On or more PLC timer values are not multiples of the cycle time (8ms)
Error correction	• Check FW Version and Version of application software for compatibility • Check every PLC timer to be a multiple of 8ms • Re-transmit configuration • Power Cycle

Fatal Error Code	F 6809 / F 6810
Error message	Wrong PLC macro CRC
Cause	-
Error correction	• Check FW Version and Version of application software for compatibility • Re-transmit configuration • Power Cycle

Fatal Error Code	F 6811 / F 6812
Error message	Wrong PLC macro termination
Cause	-
Error correction	• Check FW Version and Version of application software for compatibility • Re-transmit configuration • Power Cycle

Fatal Error Code	F 6813 / F 6814
Error message	PLC kernel raised a fatal error
Cause	-
Error correction	• Check FW Version and Version of application software for compatibility • Re-transmit configuration • Power Cycle

Fatal Error Code	F 7001 / F 7002
Error message	Internal error FSoE stack
Cause	Error while processing FSoE data
Error correction	• Check the settings of the FSoE Master • Check connectivity of the device • Power Cycle

Fatal Error Code	F 7429 / F 7430
Error message	Inconsistent logical Profisafe Program Counter
Cause	-
Error correction	• Check the bus configuration • Check connectivity of the device • Power Cycle

Fatal Error Code	F 8205 / F 8206
Error message	Maximum cycle length exceeded
Cause	Processing the application would exceed the maximum cycle time of the device
Error correction	• Reduce the number of used PLC operands by simplifying your program • Remove unused blocks from application • Power Cycle

Fatal Error Code	F 8207 / F 8208
Error message	Logical Program counter exceeds maximum
Cause	-
Error correction	• Re-transmit configuration to device • Power Cycle

Fatal Error Code	F 8213 / F 8214
Error message	Runtime overrun interrupt
Cause	-
Error correction	• Re-transmit configuration to device • Power Cycle

Fatal Error Code	F 8221 / F 8222
Error message	Maximum runtime complementary channel exceeded
Cause	Processing the application would exceed the maximum cycle time of the device
Error correction	• Reduce the number of used PLC operands by simplifying your program • Remove unused blocks from application • Power Cycle

Fatal Error Code	F 8223 / F 8224
Error message	Inconsistent logical Interrupt program counter
Cause	-
Error correction	• Re-transmit configuration to device • Power Cycle

Fatal Error Code	F 8225
Error message	Ticker sync error
Cause	• Maximum runtime exceeded • Communication error with extension device (s)
Error correction	• Check the back pane bus connection • Reduce the number of used PLC operands by simplifying your program • Remove unused blocks from application • Power Cycle

Fatal Error Code	F 8227 / F 8228
Error message	Maximum interrupt runtime complementary channel exceeded
Cause	Processing the application would exceed the maximum cycle time of the device
Error correction	• Reduce the number of used PLC operands by simplifying your program • Remove unused blocks from application • Power Cycle

Fatal Error Code	F 9001 / F 9002
Error message	CPU self test error
Cause	-
Error correction	• Check EMC requirements • Power Cycle • Replace device

Fatal Error Code	F 9007 / F 9008
Error message	CPU RAM test returned with error
Cause	-
Error correction	• Check EMC requirements • Power Cycle • Replace device

Fatal Error Code	F 9009 / F 9010
Error message	Firmware CRC mismatch
Cause	-
Error correction	• Power Cycle • Replace device

Fatal Error Code	F 9011 / F 9012
Error message	Internal stack test returned with an error
Cause	-
Error correction	• Power Cycle • Replace device

Fatal Error Code	F 9013 / F 9014
Error message	Error NVRAM test
Cause	-
Error correction	• Power Cycle • Replace device

Fatal Error Code	F 9015 / F 9016
Error message	Error CPU RAM test
Cause	-
Error correction	• Power Cycle • Replace device

Fatal Error Code	F 9017 / F 9018
Error message	Error CPU register test
Cause	-
Error correction	• Power Cycle • Replace device

Fatal Error Code	F 9019 / F 9020
Error message	Switch default
Cause	-
Error correction	• Power Cycle • Replace device