

Fault Messages

Nr.	Description:	Possible cause of fault
F.000	Door position too far up	• Too small a parameter value for upper emergency limit switch → enlarge P.239 • Upper limit switch range (limit switch band) too small → enlarge P.233 • Mechanical brake defective or improperly set
F.005	Door position too far down	• Too small a parameter value for lower emergency limit switch → enlarge P. 229 • Lower limit switch range (limit switch band) too small → enlarge P. 223 • Mechanical brake defective or improperly set
F.020	Run time exceeded (during opening, closing or deadman)	• current motor run time has exceeded set maximum run time (P.410 (Opening), P.415 (Closing), P.419 (Deadman move), door may be sticking or is blocked • Door is blocked • If using mechanical limit switches, one may not have tripped
F.030	Lag error (position change of the door is less than expected)	• gate or motor is blocked • insufficient power for providing necessary torque • too little speed • mechanical limit switch was not left or is defective • Incremental or absolute encoder shaft is slipping • wrong positioning system selected (P.205) • one motor phase is missing • the brake does not release • Settings of the failure detecting time are not correct (P.430 or P.450)
F.031	Detected rotational direction deviates from expected	• When using incremental encoders: Channel A and B reversed • Motor rotation direction reversed compared with calibration setting → teach in the limits new (P.210 = 5) • Too much „pancaking“ when starting, brake releases too soon, or too little torque, adjust boost (P.140 or P.145) as necessary.
F.043	Pre-limit switch fault (light barrier)	• The pre-limit switch for the light barrier remains activated even in the middle end position or upper end position.
F.060	Breakaway recognized	• Breakaway was detected but not fixed • The automatic lead in after breakaway has failed
F.063	Balance error on loop 3	• disturbing surrounding • Loop out of tolerance range
F.064	Balance error on loop 4	• disturbing surrounding • Loop out of tolerance range

F.067	Error on loop 3	• Shortcut or intermitted loop connection wiring
F.068	Error on loop 4	• Shortcut or intermitted loop connection wiring
F.080	Fault: Maintenance is required	• Service counter has expired
F.090	Controller not parameterized	• The min. necessary basic parameters for the controller have not yet been set → Activate DIP-switch and put in the asked parameters.
F.201	Internal E-Stop „push-button“ tripped or Watchdog (computer monitor)	• E-Stop chain was interrupted starting at input „internal EStop“ without parameterizing mode having been selected • Internal parameter or EEPROM checks defective, pressing the STOP key provides additional information about the cause
F.211	External E-Stop 1 tripped	• E-Stop chain was interrupted starting at Input 1
F.212	External E-Stop 2 tripped	• E-Stop chain was interrupted starting at Input 2
F.320	Obstacle during opening	• During opening an obstacle has recognized
F.325	Obstacle during closing	• During closing an obstacle has recognized
F.360	Short circuit detected on edge input terminal 43	• Short circuit detected on edges with normally closed contact • The light beam of the optical edge is interrupted • Jumper for 1K2 / 8K2 is wrong set
F.361	Number of edge trips for closing has reached set limit on edge input terminal 43	• Parameterized, maximum number of safety edge trips during a door cycle was exceeded → To reset close the door in deadman mode
F.362	Redundancy error with short circuit on edge input terminal 43	• One of the processing channels for short circuit detection does not react identically with the second channel → Controller board defective, if no other error message F.3xx is shown • Dynamical optical safety edge connected but not set in Parameter P.460
F.363	Interruption on edge input terminal 43	• Connection cable defective or not connected • Termination resistor incorrect or missing • Jumper 1K2 / 8K2 incorrectly set
F.364	Safety edge testing failed on edge input terminal 43	• Safety edge was not activated as expected when requesting a test. • The time between request for testing and actual testing not in agreement
F.365	Redundancy error with interruption on edge input terminal 43	• One of the processing channels for interruption detection does not react identically with the second channel → Controller board defective, if no other error message F.3xx is shown • Dynamic optical system connected but not set in Parameter P.460
F.366	Too high a pulse frequency for optical safety edge on edge input terminal 43	• Defective optical safety edge • Defective input for internal safety edge
F.369	Internal safety edge incorrectly parameterized on edge input terminal 43	• An internal safety edge is connected but deactivated → set P.460 to the used edge type
F.36A	Redundancy error of the 8K2 slip door switch on the internal safety edge evaluation unit on edge input terminal 43	• One of the contacts of the redundant 8K2-wicket door switch is defective • The slip door was not fully opened or closed
F.371	Number of edge trips for external safety edge has reached set limit at plugin card SURA1/6	• Parameterized, maximum number of safety edge trips during a door cycle was exceeded

F.372	Redundancy error with short circuit	• One of the processing channels for short circuit detection does not react identically with the second channel. • Controller board defective
F.373	Fault in the safety edge (message comes from module)	• Cable break to safety edge, no edge connected, edge termination resistor incorrect or defective • Jumper for termination resistor definition in wrong position. • Safety edge processing selected with Parameter P.470, but module not plugged in or wrong module.
F.374	Safety bar testing failed at plug-in card SURA1/6	• Pre-limit switch for safety edge incorrectly set or defective • Processing module defective • Safety edge defective
F.380	Short circuit detected on edge input terminal 65	• Short circuit detected on edges with normally closed contact • The light beam of the optical edge is interrupted • Jumper for 1K2 / 8K2 is wrong set
F.383	Interruption on edge input terminal 65	• Connection cable defective or not connected • Termination resistor incorrect or missing • Jumper 1K2 / 8K2 incorrectly set
F.384	Safety edge testing failed on edge input terminal 65	• Safety edge was not activated as expected when requesting a test. • The time between request for testing and actual testing not in agreement
F.385	Fault in pre-limit switch for safety edge	• Pre-limit switch for turning off the safety edge or reversing after safety edge tripping remains tripped even in the upper end position.
F.386	Too high a pulse frequency for optical safety edge on edge input terminal 65	• Defective optical safety edge • Defective input for internal safety edge
F.389	Internal safety edge incorrectly parameterized on edge input terminal 65	• An internal safety edge is connected but deactivated → set P.460 to the used edge type
F.38A	Redundancy error of the 8K2 slip door switch on the internal safety edge evaluation unit on edge input terminal 43	• One of the contacts of the redundant 8k2-wicket door switch is defective • The slip door was not fully opened or closed
F.425	Overvoltage line supply	• The supply voltage for the controller is to high
F.426	Undervoltage line supply	• The supply voltage for the controller is to low
F.430	Temperature cooler outside of working range Limit 1	• Excessive load on final stages or brake chopper • Ambient temperature too low for controller operation • Clock frequency of final stage too high (Parameter P.160)
F.435	Housing temperature high	• The temperature inside the controller housing is to high
F.440	Overcurrent in DC-bus Limit 1	• Boost not adjusted • Motor incorrectly dimensioned for door • Door sticks
F.510	Motor / DC-bus overcurrent Limit 2	• Wrong motor data set (P.100 – P.103) • Non-adjusted voltage increase / boost set (P.140 or P.145) • Motor not properly dimensioned for door • Door sticks
F.512	Offset motor current / DC-bus current faulty	• The controller hardware is broken

F.519	IGBT driver chip detected overcurrent	• Short circuit or ground fault on motor terminals • Motor rated current setting extremely wrong (P.100) • Extremely too much boost (P.140 or P.145) • Motor incorrectly dimensioned • Motor winding defective • Momentary interruption of the E-Stop circuit.
F.520	Overvoltage in DC-bus Limit 2	• Brake chopper interference / defective / missing • Feed voltage much too high • Motor feeds back too much energy in generator mode, door motion energy cannot be sufficiently brought down.
F.521	Overvoltage in DC-bus	• Input voltage supply too low, usually at load • Load too great / final stage or brake chopper fault
F.524	Ext. 24 V supply missing or too low	• Overload but no short circuit • When 24V is shorted the controller voltage does not ramp up and glow lamp V306 comes on.
F.525	Overvoltage at the line supply input	• The line supply for the Controller is too high • The line supply fluctuates very extremely
F.530	Heatsink temperature outside of working range Limit 1	• Excessive load on final stages or brake chopper • Ambient temperature too low for controller operation • Clock frequency of final stage too high (Parameter P.160)
F.535	Housing temperature high	• The temperature inside the controller housing is too high
F.540	Overcurrent in DC-bus Limit 2	• Boost not adjusted • Motor incorrectly dimensioned for door • Door sticks
F.700	Position sensing defective	For mechanical limit switches: • At least one limit switch does not correspond to the configured active status. • An implausible combination of at least 2 active limit switches For electronic limit switches: • After invoking activation of the factory parameters (Parameter P.990) the corresponding positioning system was not parameterized. • Calibration not completed or is incorrect and must be repeated. • When activating the intermediate stop the intermediate stop is implausible. • Synchronization not finished or reference switch defective.
F.701	CLOSE Position not found in timer mode	• The simulated end switch CLOSE was not reached at the expected position • The tolerance band for the recognition time is too small (P.229)
F.702	OPEN Position not found in timer mode	• The simulated end switch OPEN was not reached at the expected position • The tolerance band for the recognition time is too small (P.239)

F.752	Timeout with protocol transmission	• Interface cable defective / interrupted • Channel A and B connected over cross • Absolute encoder processor electronics defective • Defective hardware or electrically noisy environment • Take a control cable with shield • Adjust a RC element (100Ω+100nF) at the brake
F.760	Position outside of window	• Position encoder drive defective • Absolute encoder processing electronics defective • Defective hardware or electrically noisy environment
F.763	DES-B Error	• Position encoder drive defective -> make a reset
F.766	Internal error TST PD/PE	• The position encoder TST PD / PE is disturbed -> make a reset
F.767	Overtemperature TST PD	• The temperature in the encoder housing is too high
F.768	Battery voltage	• The voltage of the buffer battery is too low → change battery
F.769	Rotation speed of PD shaft too high	• The rotation speed of the shaft where the encoder is mounted is too high → mount the encoder on another shaft
F.770	Door way is too high for the parameter set Encoder resolution	• The Value of the Parameter P.202 (set Encoder resolution) is too high for the combination Encoder and Door.
F.801	Wrong Test of input 1 of the mobile unit TST FSx	• Input 1 of the mobile unit was tested wrong • The device which is connected to the input does not work correct • The mobile unit is defective
F.802	Wrong Test of input 2 of the mobile unit TST FSx	• Input 2 of the mobile unit was tested wrong • The device which is connected to the input does not work correct • The mobile unit is defective
F.803	Wrong Test of input 3 of the mobile unit TST FSx	• Input 3 of the mobile unit was tested wrong • The device which is connected to the input does not work correct • The mobile unit is defective
F.804	Wrong Test of input 4 of the mobile unit TST FSx	• Input 4 of the mobile unit was tested wrong • The device which is connected to the input does not work correct • The mobile unit is defective
F.80A	Wrong Test of input A of the stationary unit TST FSx	• Input A of the stationary unit was tested wrong • The device which is connected to the input does not work correct • The stationary unit is defective
F.80B	Wrong Test of input B of the stationary unit TST FSx	• Input B of the stationary unit was tested wrong • The device which is connected to the input does not work correct • The stationary unit is defective
F.80C	Wrong Test of input C of the stationary unit TST FSx	• Input C of the stationary unit was tested wrong • The device which is connected to the input does not work correct • The stationary unit is defective
F.811	Wrong Test of output 1 of the stationary unit TST FSx	• The output 1 of the stationary unit was tested wrong • The cable between stationary unit and controller is broken or not connected • The stationary unit is defective • Parameter P.Fxb, P.47b or P.465 wrong adjusted

F.812	Wrong Test of output 2 of the stationary unit TST FSx	• The output 2 of the stationary unit was tested wrong • The cable between stationary unit and controller is broken or not connected • The stationary unit is defective • Parameter P.Fxb, P.47b or P.465 wrong adjusted
F.813	Wrong Test of output 3 of the stationary unit TST FSx	• The output 3 of the stationary unit was tested wrong • The cable between stationary unit and controller is broken or not connected • The stationary unit is defective • Parameter P.Fxb, P.47b or P.465 wrong adjusted
F.821	Wrong parameter setting input 1 of mobile unit	• The device which is connected to input 1 of the mobile unit does not fit to the settings • Check Parameter P.F1F
F.822	Wrong parameter setting input 2 of mobile unit	• The device which is connected to input 2 of the mobile unit does not fit to the settings • Check Parameter P.F2F
F.823	Wrong parameter setting input 3 of mobile unit	• The device which is connected to input 3 of the mobile unit does not fit to the settings • Check Parameter P.F3F
F.824	Wrong parameter setting input 4 of mobile unit	• The device which is connected to input 4 of the mobile unit does not fit to the settings • Check Parameter P.F4F
F.831	Disturbed input 1 of mobile unit TST FSx	• The input 1 of the mobile unit is disturbed • The connection to the device is interrupted
F.832	Disturbed input 2 of mobile unit TST FSx	• The input 2 of the mobile unit is disturbed • The connection to the device is interrupted
F.833	Disturbed input 3 of mobile unit TST FSx	• The input 3 of the mobile unit is disturbed • The connection to the device is interrupted
F.834	Disturbed input 4 of mobile unit TST FSx	• The input 4 of the mobile unit is disturbed • The connection to the device is interrupted
F.841	Frequency error on input 1 of mobile unit	• The connected optical safety sdge is faulty
F.843	Frequency error on input 3 of mobile unit	• The connected optical safety sdge is faulty
F.852	Communication error between TST FSx and controller	This error is shown when the controller don't have RS485 communication for min. 1 second with the stationary unit of TST FSx. Possible causes are: • The stationary unit is broken • The stationary unit is not or wrong connected
F.853	TST PE_FSBS operating voltage too low	The operating voltage of encoder TST PE_FSBS is too low (less than 8V). As a result, the calculation of the position must be terminated.
F.859	Software version	The software versions of the stationary and the mobile unit are not compatible. No safe trip possible.
F.860	Internal fault stationary unit	Internal system fault on the stationary unit.
F.861	Internal fault mobile unit	Internal system fault on the mobile unit.
F.862	Internal positioning system error	Internal error of the positioning system. Presumably, the magnet is not attached properly.

F.867	Adresse of mobile unit not set	• The adresse of the mobile unit was not set so far • The adresse has to be set in Parameter P.F07 • The adresse is written on a sticker on the mobile unit
F.920	Internal 2.5 V reference voltage incorrect	• Hardware defect
F.921	Internal 15 V voltage incorrect	• Hardware defect
F.922	E-Stop chain not complete	• Not all E-STOP inputs are separately jumpered although the entire E-Stop chain is jumpered • Redundant checking of the E-Stop chain tripped
F.925	Testing of the third shutdown method failed	• defective hardware
F.928	Faulty input testing	• The testing of an cyclic tested input was not successful • The connected device is not working • The cable connection between the connected device and the controller is broken
F.930	External watchdog incorrect	• Defective hardware or noise-saturated environment
F.931	ROM error	• Wrong EPROM code • Defective hardware or noise-saturated environment
F.932	RAM error	• Defective hardware or noise-saturated environment
F.933	Wrong frequency of CPU	• The clock frequency of the processor is wrong
F.934	RAM test not ready	• This error is shown with new controllers in the first 20 seconds after switching ON, before the RAM tets starts • If the test mode is activated during this time the error stays longer • If during this time a USB stick is plugged in the controller starts new with the Bootloader and is waiting for software update.
F.935	Stack error	• UserSTack or SystemStack overflowed • Possible software error due to recursive invocations (e.g. profile)
F.960	Wrong parameter checksum	• New EPROM version with different parameters • Controller not yet initialized
F.961	Checksum from calibration values etc.	• New EPROM version with different EEPROM structure • Controller not yet initialized
F.962	Converter parameters not plausible	• New EPROM version • Controller not yet initialized
F.964	Program version / manufacturer code	• New EPROM version • Controller not yet initialized
F.966	Hardware unknown	• A wrong software was programmed to the controller • The programmed software does not know the hardware version • The controller hardware is broken
F.968	Programming error with Real time clock	• The Clock is not programmed plausible
F.969	Internal error Real time clock	• The clock has an error → make a reset
F.970	Plausibility Param.block error	• New EPROM version • Controller not yet initialized • Some parameter is implausible

Information Messages:

Nr.	Description
I.080	Service counter will run off
I.100	Speed in open position to high
I.150	Speed in close position to high
I.160	Permanent open comand still aktiv
I.161	Priority not active
I.170	Forced opening active
I.180	Wait for foil key command
I.185	Wait for reset by stop foil key
I.199	Door counter wrong
I.200	New reference position taken over
I.201	Reference position new initialized
I.205	Synchronisation done
I.210	Limit switch not plausible
I.211	Limit switch not plausible
I.200	Reference corrected
I.205	Reference position encoder
I.310	Open command to door 2
I.320	Obstacle during opening
I.325	Obstacle during closing
I.360	Disturbed N.C. safety edge
I.363	Disturbed N.O. safety edge
I.510	Correction drive finished
I.515	Active correction drive
I.520	Pre set speed for open or close drive not reached
I.555	Measuring rotation factor not ready
I.700	In timer limit switch operating mode (typ. after power on) the door position is not available. Deadman speed is maintained until the actual position becomes available again.

Input Messages:

Nr.	Description
E.000	"Open-Keypad"
E.050	"Stop-Keypad"
E.090	"Close-Keypad"
E.101	"Input 1"
E.102	"Input 2"
E.103	"Input 3"
E.104	"Input 4"
E.105	"Input 5"
E.106	"Input 6"
E.107	"Input 7"
E.108	"Input 8"
E.109	"Input 9"
E.110	"Input 10"
E.111	"Input 11"
E.112	"Input 12"
E.113	"Input 13"
E.114	"Input 14"
E.115	"Input 15"
E.121	"Input 21"
E.122	"Input 22"
E.123	"Input 23"
E.124	"Input 24"
E.125	"Input 25"
E.126	"Input 26"
E.127	"Input 27"
E.128	"Input 28"
E.201	"E-Stop Int"
E.211	"E-Stop Ext 1"
E.212	"E-Stop Ext 2"
E.360	"Edge Tripped" (safety edge at terminal 43)
E.370	"Edge Tripped" (safety edge channel 1 of plug-in module SURA)
E.380	"Edge Tripped" (safety edge at terminal 65)
E.3F0	"Edge Tripped" (safety edge channel 2 of plug-in module SURA6)
E.401	"Radio Ch1"
E.402	"Radio Ch2"
E.501	"Loop Ch1"
E.502	"Loop Ch2"
E.503	"Loop Ch3"
E.504	"Loop Ch4"
E.F01	"Air Safety In 1"
E.F02	"Air Safety In 2"
E.F03	"Air Safety In 3"
E.F04	"Air Safety In 4"
E.F0A	"StatSafety In A"

E.F0b	"StatSafety In B"
E.F0C	"StatSafety In C"