

## Diagnostic codes and causes

Location	Description	No.	Cause
102	Processing of commands, processing of messages	2	Data transmission error on the X2 interface
103	Control of command processing	2	Data transmission error on the X2 interface
104	Processing of commands, Processing of configuration	2	Data transmission error on the X2 interface
105	Processing of commands, generation of output messages	6	Function, access, command not permitted with currently selected access level
201	Processing of the receive protocol	4	Too much data sent over the X2 interface. Message will be overwritten by new message
302	Processing of the transmit protocol	2	The verification of displayed data remained unacknowledged for too long.
306	Output of measurement values	5	Previous message not yet completely output
801	Event processing	2	Event memory cannot be read, internal fault
805	Processing of the commands to the event memory	6	Event memory cannot be transferred. Data transmission error on interface X2
1002	Motor control during initialization	1	Motor does not reach rated speed after start. Internal fault.
1002	Motor control during initialization	2	Motor speed not constant after start. Internal fault.
1110	Test of the switch outputs.	4	Switch outputs (OSSD) have a state other than the one the scanner expected. Possible wiring or control error
1110	Test of the switch outputs.	5	Switch output (OSSD) cannot be switched OFF
1110	Test of the switch outputs.	6	Switch output (OSSD) cannot be switched ON
1111	Short circuit test of switch outputs	7	Short circuit of a switch output (OSSD) with ground
1111	Short circuit test of switch outputs	8	Short circuit of a switch output (OSSD) with Vcc
1606	Motor speed monitoring	4	Motor speed deviation, zero pulse not detected properly, internal fault
1607	Monitoring of duration of a scan	5	Motor speed deviation, motor not at rated speed

Location	Description	No.	Cause
1705	Processing of field monitoring light barrier data	1	Signal of a light barrier in optical window monitoring is under the lower limit. Dirty optical window
1705	Processing of field monitoring light barrier data	2	Signal of a light barrier of optical window monitoring is above the upper limit. Fluid media on the optical window
1906	Test of the external watchdog	1	Watchdog is not enabling the OSSDs. There may be a wiring or control error
1906	Test of the external watchdog	2	Watchdog not switching OFF the OSSDs. Internal fault
1906	Test of the external watchdog	5	Switch outputs (OSSD) have a state other than the one the scanner expected. Possible wiring or control error
1906	Test of the external watchdog	6	Watchdog not switching the cut-off path for the laser. Internal fault
1907	Test of the external watchdog	4	Event detected by watchdog, watchdog switched OFF (motor speed deviation), scanner housing may be rotating
1907	Test of the external watchdog	7	Event detected by watchdog, watchdog switched OFF (motor speed deviation), scanner housing may be rotating
2002	Processing of parameter commands	12	The verification of displayed data remained unacknowledged for too long.
2007	Verification of parameter data received	18	The date of the detection zone currently being transferred is older than the date of the detection zone in the scanner
2201	Area monitoring	5	Number of measurements in the scan too small due to motor speed error or switch-off of the watchdog. Internal fuse faulty
2302	Control of software sequence	1	Error occurred while starting the scanner. Sequential error
2401	Reference measurement on the dark reference element	10	No distance value can be calculated for reference measurement. Glare from another source of light (905nm) or deviation in motor rotation speed

Location	Description	No.	Cause
2401	Reference measurement on the dark reference element	13	No removal value can be calculated for reference measurement. Dust in device because connector housing or dummy connector not screwed on
2402	Reference measurement on the light reference element	10	No distance value can be calculated for reference measurement. Glare from another source of light (905nm) or deviation in motor rotation speed
2701	Processing of messages for system diagnostics	1	Invalid diagnostic command received. Software and firmware incompatible
2702	Processing of requests for diagnostics data	3	Invalid diagnostic value requested. Software and firmware incompatible
2800	Processing of inputs for detection zone changeover	2	2 detection zones active longer than 1s
2800	Processing of inputs for detection zone changeover	3	The detection zone changeover that occurred does not correspond to the requirement programmed in the scanner.
2800	Processing of inputs for detection zone changeover	4	More than 2 detection zones selected during operation
2800	Processing of inputs for detection zone changeover	6	Unevaluatable data or defective data quality for activation of detection zone
2800	Processing of inputs during scanner operation	8	No detection zone activated during scanner operation
2801	Test of inputs for detection zone changeover	1	Error during testing of inputs for detection zone changeover, internal fault
2802	Initialization of detection zone changeover	3	The detection zone deactivation that occurred does not correspond to the requirement programmed in the scanner.
2802	Initialization of detection zone changeover	4	More than 2 detection zones selected during power-ON
2802	Initialization of detection zone changeover	6	Unevaluatable data or defective data quality for deactivation of detection zone
2802	Initialization of inputs during power-ON	8	No detection zone activated during scanner starting
3016	Monitoring the access authorization with one-time password	11	Confirmed one-time password was entered incorrectly

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