



AZM 200ST2-T-1P2PA

- Guard locking monitored
- Connector M12, 8-pole
- Thermoplastic enclosure
- Electronic contact-free, coded system
- Max. length of the sensor chain 200 m
- Self-monitoring series-wiring
- 3 LEDs to show operating conditions
- Sensor technology permits an offset between actuator and interlock of ± 5 mm vertically and ± 3 mm horizontally
- Intelligent diagnosis
- Manual release

Data

Ordering data

Note (Delivery capacity)	Phased-out product
EAN (European Article Number)	4030661368498
eCl@ss number, Version 9.0	27-27-26-03
eCl@ss number, Version 11.0	27-27-26-03
Available until	31.12.2020

Approval - Standards

Certificates	TÜV cULus EAC
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General data

Standards	IEC 61508 EN 60947-5-1 EN ISO 13849-1
Active principle	inductive
Enclosure material	Glass-fibre, reinforced thermoplastic
Gross weight	495 g
Time to readiness, maximum	4,000 ms
Reaction time, maximum	60 ms
Duration of risk, maximum	120 ms

General data - Features

Power to lock	Yes
Guard locking monitored	Yes
Manual release	Yes
Short circuit detection	Yes
Short-circuit recognition	Yes
Series-wiring	Yes
Safety functions	Yes
Integral System Diagnostics, status	Yes
Number of safety contacts	2

Safety appraisal

Standards	EN ISO 13849-1 IEC 60947-5-3 IEC 61508
Mission Time	20 Year(s)

Safety appraisal - Interlocking

Performance level, up to	e
Control category	4

PFH-value	4.00×10^{-9} /h
PFD value	1.00×10^{-4}
Safety Integrity Level (SIL), suitable for applications in	3
Mission Time	20 Year(s)

Safety appraisal - Guard locking

Performance level, up to	d
Control category	2
PFH-value	2.50×10^{-9} /h
PFD value	2.20×10^{-4}
Safety Integrity Level (SIL), suitable for applications in	2
Mission Time	20 Year(s)

Mechanical data

Mechanical life, minimum	1,000,000 Operations
Clamping force in accordance with ISO14119 F_{zh}	2,000 N
Clamping force, maximum F_{max}	2,600 N
Latching force	30 N
Actuating speed, maximum	0.2 m/s

Mechanical data - Connection technique

Terminal Connector	Connector M12, 8-pole
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Mechanical data - Dimensions

Length of sensor	50 mm
Width of sensor	40 mm

Height of sensor	220 mm
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Ambient conditions

Degree of protection	IP67 to EN 60529
Ambient temperature, minimum	-25 °C
Ambient temperature, maximum	+50 °C
Storage and transport temperature, minimum	-25 °C
Storage and transport temperature, maximum	+85 °C
Relative humidity, minimum	30 %
Relative humidity, maximum	95 %
Note (Relative humidity)	non-condensing
Resistance to vibrations to EN 60068-2-6	10 ... 55 Hz, amplitude 1 mm
Resistance to shock	30 g / 11 ms
Protection rating	II

Ambient conditions - Insulation value

Rated insulation voltage U_i	32 VDC
Rated impulse withstand voltage U_{imp}	0.8 kV
Overvoltage category	III
Degree of pollution to VDE 0100	3

Electrical data

Operating voltage, minimum	20.4 VDC
Operating voltage, maximum	26.4 VDC
No-load supply current I_0	600 mA
Operating current	50 mA

Switching frequency, approx. 1 Hz

Electrical data - Solenoid control

Switching thresholds -3 V ... 5 V (Low)
15 V ... 30 V (High)

Electrical data - Fail-safe digital inputs

Switching thresholds -3 V ... 5 V (Low)
15 V ... 30 V (High)

Electrical data - Fail-safe digital outputs

Rated operating current (safety outputs) 250 mA

Voltage drop U_d , maximum 4 V

Current leakage I_r 0.5 mA

Voltage, Utilisation category DC13 24 VDC

Current, Utilisation category DC13 0.25 A

Electrical data - Diagnostic output

Voltage drop U_d , maximum 4 V

Voltage, Utilisation category DC13 24 VDC

Current, Utilisation category DC13 0.05 A

Status indication

Note (LED switching conditions display) Operating condition: LED green
Error / functional defect: LED red
Supply voltage UB: LED green

Pin assignment

PIN 1	A1 Supply voltage UB
PIN 2	X1 Safety input 1
PIN 3	A2 GND
PIN 4	Y1 Safety output 1
PIN 5	OUT Diagnostic output
PIN 6	X2 Safety input 2
PIN 7	Y2 Safety output 2
PIN 8	IN Solenoid control

Scope of delivery

Included in delivery	Actuators must be ordered separately. Triangular key for AZM 200
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Accessory

Recommendation (actuator)	AZ/AZM 200-B1
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Notes

Note (General)	As long as the actuating unit remains inserted in the solenoid interlock, the unlocked safety guard can be relocked. In this case, the safety outputs are re-enabled, so that the safety guard must not be opened.
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Schmersal, Inc., 15 Skyline Drive, Hawthorne, NY 10532

The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.

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