



MS-AZM 200ST-T-1P2PW-2568

- Guard locking monitored
- Connector M23 12-pole,
- Idle assignable pushbutton and LED
- 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)	Not available!
Product type description	MS-AZM 200ST-T-1P2PW-2568
Article number (order number)	103004836
EAN (European Article Number)	4030661433455
eCl@ss number, version 12.0	27-27-26-03
eCl@ss number, version 11.0	27-27-26-03
eCl@ss number, version 9.0	27-27-26-03
ETIM number, version 7.0	EC002593
ETIM number, version 6.0	EC002593
Available until	31.12.2020

General data

Standards	EN ISO 13849-1 EN IEC 60947-5-1 EN IEC 61508
Coding	Universal coding
Coding level according to EN ISO 14119	Low
Working principle	inductive
Enclosure material	Glass-fibre, reinforced thermoplastic
Gross weight	610 g
Time to readiness, maximum	4,000 ms
Reaction time, maximum	60 ms
Duration of risk, maximum	120 ms

General data - Features

Power to unlock	Yes
Solenoid interlock monitored	Yes
Manual release	Yes
Short circuit detection	Yes
Cross-circuit detection	Yes
Series-wiring	Yes
Idle assignable pushbutton	Yes
Freely assignable LED	Yes
Safety functions	Yes
Integral system diagnostics, status	Yes
Number of safety contacts	2

Safety classification

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

Safety classification - Interlocking function

Performance Level, up to	e
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 classification - Guard locking function

Performance Level, up to	d
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
Holding force F_{Zh} in accordance with EN ISO 14119	2,000 N
Holding force F_{max} , maximum	2,600 N
Latching force	30 N
Actuating speed, maximum	0.2 m/s

Mechanical data - Connection technique

Termination	Connector M23, 12-pole
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Mechanical data - Dimensions

Length of sensor	50 mm
Width of sensor	40 mm
Height of sensor	220 mm

Ambient conditions

Degree of protection	IP67
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	10 ... 55 Hz, amplitude 1 mm
Resistance to shock	30 g / 11 ms
Protection class	II

Ambient conditions - Insulation values

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

Electrical data

Operating voltage, minimum	20.4 VDC
Operating voltage, maximum	26.4 VDC

No-load supply current I_0 , maximum	600 mA
Operating current	1,200 mA
Switching frequency, approx.	1 Hz

Electrical data - Magnet control

Switching thresholds	-3 V ... 5 V (Low) 15 V ... 30 V (High)
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Electrical data - Safety digital inputs

Switching thresholds	-3 V ... 5 V (Low) 15 V ... 30 V (High)
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Electrical data - Safety digital outputs

Rated operating current (safety outputs)	250 mA
Voltage drop U_d , maximum	4 V
Leakage current I_r , maximum	0.5 mA
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	0.25 A

Electrical data - Diagnostic outputs

Operating current	50 mA
Voltage drop U_d , maximum	4 V
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	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
PIN 9	white LED
PIN 10	Key button
PIN 11	Key button
PIN 12	Not used

Scope of delivery

Scope of delivery Actuators must be ordered separately.
 Triangular key for AZM 200

Accessory

Recommendation (actuator) AZ/AZM 200-B1

Note

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.

Ordering code

Product type description:

AZM 200(1)(2)-T-(3)(4)

(1)

without

Guard locking monitored

B

Actuator monitored

(2)

SK

Screw connection

CC

Spring pulley connection

ST1

Connector M23 x 1, (8+1 pole)

ST2

Connector M12 x 1, 8 pole

(3)

1P2P

1 serial diagnostic output and 2 p-type safety outputs

1P2PW

same as 1P2P, combined diagnostic signal: guard system closed and interlock locked

SD2P

serial diagnostic output and 2 p-type safety outputs

(4)

without

Power to unlock

A

Power to lock

Pictures

Product picture (catalogue individual photo)



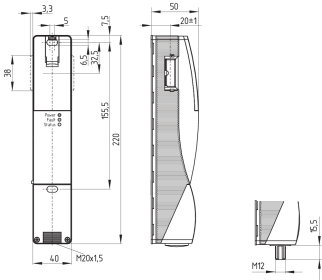
ID: kazm2f28

| 993.8 kB | .jpg | 177.447 x 833.261 mm - 503 x 2362 px - 72 dpi

| 276.4 kB | .png | 74.083 x 347.839 mm - 210 x 986 px - 72 dpi

| 10.6 kB | .jpg | 42.686 x 200.025 mm - 121 x 567 px - 72 dpi

Dimensional drawing basic component



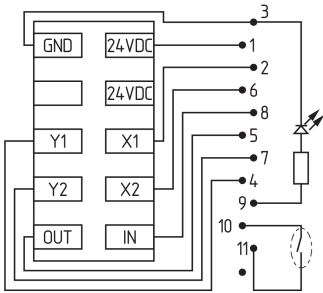
ID: 1azm2g12

| 146.3 kB | .jpg | 352.778 x 308.681 mm - 1000 x 875 px - 72 dpi

| 5.3 kB | .png | 74.083 x 64.911 mm - 210 x 184 px - 72 dpi

| 21.1 kB | .jpg | 169.686 x 148.519 mm - 481 x 421 px - 72 dpi

Diagram



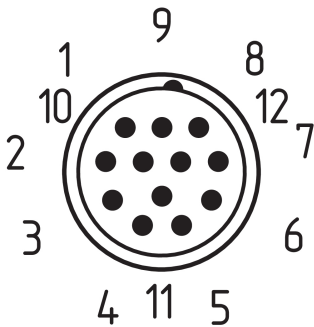
ID: kazm2k03

| 22.0 kB | .cdr |

| 126.9 kB | .jpg | 352.778 x 317.5 mm - 1000 x 900 px - 72 dpi

| 4.1 kB | .png | 74.083 x 66.675 mm - 210 x 189 px - 72 dpi

Contact arrangement



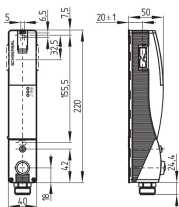
ID: km23ck12

| 19.0 kB | .cdr |

| 5.5 kB | .png | 73.731 x 75.847 mm - 209 x 215 px - 72 dpi

| 145.5 kB | .jpg | 352.425 x 362.303 mm - 999 x 1027 px - 72 dpi

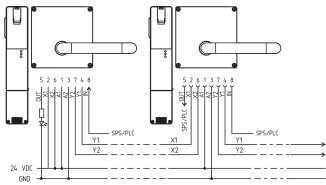
Assembly example



ID: 1azm2m44

| 99.8 kB | .jpg | 352.778 x 245.181 mm - 1000 x 695 px - 72 dpi

Wiring example



ID: kazm2l26

| 50.3 kB | .cdr |

| 105.6 kB | .jpg | 352.778 x 192.969 mm - 1000 x 547 px - 72 dpi

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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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