

EX-AZM300Z-I2-ST-1P2P-CL-3GD

- Explosion protection for ATEX Zones 2 and 22
- RFID-technology for needs-based protection against tampering
- Thermoplastic enclosure
- Suitable for mounting to profile systems
- Suitable for hinged and sliding guards
- Series-wiring
- Manual release

Data

Ordering data

Product type description	EX-AZM300Z-I2-ST-1P2P-CL-3GD
Article number (order number)	103039218
EAN (European Article Number)	4030661547992
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

Approvals - Standards

Certificates	TÜV
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Explosion protection

Explosion protection: regulations	EN IEC 60079-0 EN 60079-7 EN 60079-31
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Explosion protection zones	2 22
Explosion protection category	3G 3D
Explosion protection designation	Ⓔ II 3G Ex ec IIB T5 Gc Ex tc IIIB T95°C Dc X

General data

Standards	EN ISO 13849-1 EN ISO 14119 EN IEC 60947-5-3 EN IEC 61508
Coding	Individual coding, multiple teaching
Coding level according to EN ISO 14119	High
Working principle	RFID
Frequency band RFID	125 kHz
Transmitter output RFID, maximum	-6 dB/m
Housing material	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
Duration of risk, maximum	200 ms
Reaction time, switching off safety outputs via actuator, maximum	100 ms
Reaction time, switching off safety outputs via safety inputs, maximum	1.5 ms
Gross weight	1,137 g

General data - Features

Power to unlock	Yes
Solenoid interlock monitored	Yes
Latching	Yes
Manual release	Yes
Short circuit detection	Yes
Cross-circuit detection	Yes

Series-wiring	Yes
Safety functions	Yes
Integral system diagnostics, status	Yes
Number of actuating directions	1
Number of fail-safe digital outputs	2

Safety classification

Standards	EN ISO 13849-1 EN IEC 61508
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Safety classification - Interlocking function

Performance Level, up to	e
Category	4
PFH value	5.20×10^{-10} /h
PFD value	4.50×10^{-5}
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	2.00×10^{-9} /h
PFD value	1.80×10^{-4}
Safety Integrity Level (SIL), suitable for applications in	2
Mission time	20 Year(s)

Mechanical data

Mechanical life, minimum	1,000,000 Operations
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Note (Mechanical life)	When using as door stop: ≥ 50.000 operations (door mass ≤ 5 kg and actuating speed ≤ 0.5 m/s)
Angular misalignment between solenoid interlock and actuator, maximum	2 °
Energy impact (protective case), maximum	7 J
Note (Energy impact)	with stainless steel CL/CR protective enclosure
Holding force F_{Zh} in accordance with EN ISO 14119	1,150 N
Holding force F_{max} , maximum	1,500 N
Latching force, adjustable, position 1	25 N
Latching force, adjustable, position 2	50 N
Type of the fixing screws	2x M6
Note (Type of the fixing screws)	Property class min. 8.8
Tightening torque of the fixing screws, maximum	8 Nm
Material of the fixing screws	Stainless steel (V4A)

Mechanical data - Switching distances according EN IEC 60947-5-3

Switch distance, typical	2 mm
Assured switching distance "ON" S_{ao}	1 mm
Assured switching distance "OFF" S_{ar}	20 mm

Mechanical data - Connection technique

Length of sensor chain, maximum	200 m
Note (length of the sensor chain)	Cable length and cross-section change the voltage drop depending on the output current
Note (series-wiring)	Unlimited number of devices, observe external line fusing, max. 31 devices in case of serial diagnostic SD
Termination	Connector M12, 8-pole, A-coded

Mechanical data - Dimensions

Length of sensor	178 mm
Width of sensor	93 mm
Height of sensor	40.3 mm

Ambient conditions

Degree of protection	IP66 IP67 IP69
Ambient temperature	+0 ... +50 °C
Storage and transport temperature	-10 ... +90 °C
Relative humidity, maximum	93 %
Note (Relative humidity)	non-condensing non-icing
Resistance to vibrations	10 ... 150 Hz, amplitude 0.35 mm
Resistance to shock	30 g / 11 ms
Protection class	III
Permissible installation altitude above sea level, maximum	2,000 m

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	24 VDC -15 % / +10 % (stabilised PELV power supply)
No-load supply current I_0 , typical	100 mA
Current consumption with magnet ON, average	200 mA

Current consumption with magnet ON, peak	350 mA / 200 ms
Rated operating voltage	24 VDC
Required rated short-circuit current	100 A
External wire and device fuse rating	2 A gG
Time to readiness, maximum	5,000 ms
Switching frequency, maximum	0.5 Hz
Utilisation category DC-12	24 VDC / 0.05 A
Electrical fuse rating, maximum	2 A

Electrical data - Magnet control

Designation, Magnet control	IN
Switching thresholds	-3 V ... 5 V (Low) 15 V ... 30 V (High)
Current consumption at 24 V	10 mA
Magnet switch-on time	100 %
Test pulse duration, maximum	5 ms
Test pulse interval, minimum	40 ms
Classification ZVEI CB24I, Sink	C0
Classification ZVEI CB24I, Source	C1 C2 C3

Electrical data - Safety digital inputs

Designation, Safety inputs	X1 and X2
Switching thresholds	-3 V ... 5 V (Low) 15 V ... 30 V (High)
Current consumption at 24 V	5 mA
Test pulse duration, maximum	1 ms
Test pulse interval, minimum	100 ms
Classification ZVEI CB24I, Sink	C1

Classification ZVEI CB24I, Source	C1
	C2
	C3

Electrical data - Safety digital outputs

Designation, Safety outputs	Y1 and Y2
Design of control elements	short-circuit proof, p-type
Voltage drop U_d , maximum	2 V
Leakage current I_r , maximum	0.5 mA
Voltage, Utilisation category DC-12	24 VDC
Current, Utilisation category DC-12	0.25 A
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	0.25 A
Test pulse interval, typical	1000 ms
Test pulse duration, maximum	0.5 ms
Classification ZVEI CB24I, Source	C2
Classification ZVEI CB24I, Sink	C1 C2

Electrical data - Diagnostic outputs

Designation, Diagnostic outputs	OUT
Design of control elements	short-circuit proof, p-type
Voltage drop U_d , maximum	2 V
Voltage, Utilisation category DC-12	24 VDC
Current, Utilisation category DC-12	0.05 A
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 U_B : 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

Scope of delivery	Actuator must be ordered separately.
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Accessory

Recommendation (actuator)	EX-AZ/AZM300-B1
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Note

Note (General)	For doors that are flush with the door frame, the optional mounting plate MP-AZ/AZM300-1 can be used. For glass and Makrolon doors, the optional mounting kit MS-AZ/AZM300-B1-1 can be used. 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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Ordering code

Product type description:
EX-AZM300(1)(2)-ST(3)(4)(5)

(1)

Z	Guard locking monitored
B	Actuator monitored

(2)

without

Standard coding

I1

Individual coding

I2

Individual coding, multiple teaching

(3)

1P2P

1 p-type diagnostic output and 2 p-type safety outputs

SD2P

serial diagnostic output and 2 p-type safety outputs

(4)

without

Power to unlock

A

Power to lock

(5)

CL

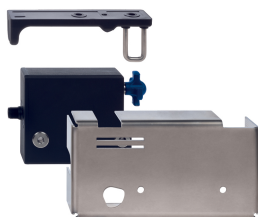
With protective enclosure, door hinge left

CR

With protective enclosure, door hinge right

Pictures

Product picture (catalogue individual photo)

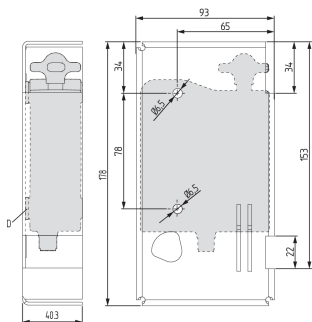


ID: kxaz3f01

| 184.7 kB | .jpg | 352.778 x 291.042 mm - 1000 x 825 px - 72 dpi

| 20.1 kB | .png | 74.083 x 61.031 mm - 210 x 173 px - 72 dpi

Dimensional drawing basic component



ID: kazm3gx2

| 137.4 kB | .jpg | 352.778 x 370.769 mm - 1000 x 1051 px - 72 dpi

| 16.1 kB | .png | 73.731 x 77.611 mm - 209 x 220 px - 72 dpi

| 43.4 kB | .png | 47.583 x 50.038 mm - 562 x 591 px - 300 dpi

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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