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# Datasheet - AZM300Z-I2-ST-1P2P-A

Solenoid interlock / AZM300



- Suitable for mounting to profile systems
- Thermoplastic enclosure
- RFID-technology for needs-based protection against tampering

SCHMERSAL

- 3 different directions of actuation
- Compact design
- 3 LEDs to show operating conditions
- Suitable for hinged and sliding guards
- Series-wiring
- Manual release
- Repeated individual coding with RFID technology
- Coding level "High" according to ISO 14119
- Connector M12, 8-pole
- Power to lock
- · Guard locking monitored
- Diagnostic output

(Minor differences between the printed image and the original product may exist!)

## **Ordering details**

Product type description	AZM300Z-I2-ST-1P2P-A
Article number	103001454
EAN Code	
eCl@ss	27-27-26-03

#### Approval

Approval



#### Classification

Standards	EN ISO 13849-1, IEC 61508
PL	e
Control category	4
SIL	3
Mission time	20 Years
PFH value	5.2 x 10-10 /h

#### **Global Properties**

Permanent light	AZM300
Standards	EN 60947-5-1, IEC 60947-5-3, IEC 61508, EN ISO 13849-1
Compliance with the Directives (Y/N) $CE$	Yes
Suitable for safety functions (Y/N)	Yes
Series-wiring	Yes
Length of the sensor chain	200
Active principle	RFID
Coding levels according to ISO 14119	High
Coding	Individual coding, multiple teaching
Duty cycle	100
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic
Housing coating	None
Weight	
Guard locking monitored (Y/N)	Yes
Actuator monitored (Y/N)	No
Idle assignable pushbutton and LED (Y/N)	No
Reaction time	< 120
Duration of risk	< 200
Time to readiness	5 s
Recommended actuator	AZ/AZM300-B1

## Mechanical data

Design of electrical connection	Connector M12, 8-pole, A-coded
Mechanical life	≥ 1.000.000 operations
notice - Mechanical life (when used as door stop)	≥ 50.000 operations for guards $\leq$ 5 kg; actuating speed $\leq$ 0,5 m/s
Switch distance	2
Ensured switch distance ON	1
Ensured switch distance OFF	20
restistance to shock	30 / 11
Resistance to vibration	10 150 HZ, Amplitude 0,35 mm
Emergency unlocking device (Y/N)	No
Manual release (Y/N)	Yes
Emergency release (Y/N)	No
Latching (Y/N)	Yes
Latching force	25 / 50
Clamping force F	1150 N
Actuator and interlock misalignment	≤2
fixing screws	2 x M6

## **Ambient conditions**

Ambient temperature	
- Min. environmental temperature	0
- Max. environmental temperature	+60
Storage and transport temperature	
- Min. Storage and transport temperature	-10
- Max. Storage and transport temperature	+90
Protection class	IP66, IP67, IP69 to IEC 60529
Protection rating	Ш

Air clearances and creepage distanc	es To IEC/EN 60664-1
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- Rated impulse withstand voltage	0,8
- Overvoltage category	III
- Degree of pollution	3

## **Electrical data**

Number of auxiliary contacts	0
Number of safety contacts	2
Cross circuit/short circuit recognition possible (Y/N)	Yes
Power to unlock	No
Power to lock	Yes
Supply voltage (stabilised PELV)	24 -15 / +10
Switch frequency	0,5
Operating current	100 (without load)
Rated insulation voltage	32 VDC
Operating current le	1 A
Utilisation category	DC-13
Required rated short-circuit current	100 A
Device insulation	2 A
notice	Cable length and cable section alter the voltage drop depending on the output current

## **Electrical data - Safety inputs**

Safety inputs	X1 and X2
Rated operating voltage Ue	−3 V … 5 V ( Low) 15 V … 30 V ( High)
Switching thresholds	−3 … 5 ( Low) 15 … 30 ( High)
Operating current le	5 mA / 24 V
Operating current	5 mA / 24 V

## **Electrical data - Safety outputs**

Safety outputs	Y1 and Y2
Design of control output	short-circuit proof, p-type
Rated operating voltage	0 4 under Supply voltage
Residual current	≤ 0,5
Operating current	0,25 A
Utilisation category	DC-12, DC-13
Test impulse width	< 0,5
Test frequency	1

## Electrical data - Diagnostic output

Serial diagnostics (Y/N)	No
Fuse rating	p-type, short-circuit proof
Design of control output	short-circuit proof, p-type
Rated operating voltage Ue	0 V 4 V under Supply voltage UB
Operating current	0,05 A
Utilisation category	DC-12, DC-13
Wiring capacitance for serial diagnostics	-
diagnostic signals	guard door closed and interlocking device locked
Operating principle of the diagnostic output	The short-circuit proof diagnostic output OUT can be used for central

#### **Electrical data - Solenoid control IN**

Switching thresholds	−3 … 5 (Low) 15 … 30 (High)
Operating current le	10 mA / 24 V
Operating current	10 mA / 24 V

## LED switching conditions display

- Supply voltage green LED - switching condition yellow LED - Error functional defect red LED	LED switching conditions display (Y/N) LED switching conditions display	Yes	
		green LED	
- Error functional defect red LED	- switching condition	yellow LED	
	- Error functional defect	red LED	

#### ATEX

Explosion protection categories for gases	None
Explosion protected category for dusts	None

## Dimensions

Dimensions of the sensor	
- Width of sensor	85
- Height of sensor	100
- Length of sensor	35

#### **Pin assignment**

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

#### notice

As lons as the actuating unit remains inserted in the solenoid interlock, the unlocked safety guard can be relocked. The safety outputs then will be enabled again; opening the safety guard therefore is not required.

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.

#### Included in delivery

Actuators must be ordered separately.

#### AZM300(1)(2)-ST(3)-(4)-(5)

(1)	
Z	Guard locking monitored
В	Actuator monitored
(2)	
without	Included in standard versioncoding
11	Individual coding
12	Individual coding, multiple teaching
(3)	
1P2P	1 Diagnostic output, p-type and 2 Safety outputs, p-type
SD2P	serial diagnostic output and 2 Safety outputs, p-type
(4)	
without	Power to unlock
Α	Power to lock
(5)	
without	Manual release
т	Emergency exit
N	Emergency release

#### Documents

**Operating instructions and Declaration of conformity** (jp) 1 MB, 18.09.2017 Code: mrl\_azm300\_jp

**Operating instructions and Declaration of conformity** (it) 1 MB, 11.07.2018 Code: mrl\_azm300\_it

**Operating instructions and Declaration of conformity** (sv) 1 MB, 18.09.2017 Code: mrl\_azm300\_sv

**Operating instructions and Declaration of conformity** (en) 1 MB, 18.06.2018 Code: mrl\_azm300\_en

**Operating instructions and Declaration of conformity** (da) 1 MB, 18.09.2017 Code: mrl\_azm300\_da

**Operating instructions and Declaration of conformity** (cn) 1 MB, 22.11.2018 Code: mrl\_azm300\_cn

**Operating instructions and Declaration of conformity** (es) 1 MB, 01.08.2018 Code: mrl\_azm300\_es

**Operating instructions and Declaration of conformity** (de) 1 MB, 18.06.2018 Code: mrl\_azm300\_de

**Operating instructions and Declaration of conformity** (fr) 1 MB, 01.08.2018 Code: mrl\_azm300\_fr

**Operating instructions and Declaration of conformity** (nl) 1 MB, 01.08.2018 Code: mrl\_azm300\_nl

Operating instructions and Declaration of conformity (pt) 1 MB, 01.08.2018

## Operating instructions and Declaration of conformity (pl) 1 MB, 21.11.2018

Code: mrl\_azm300\_pl

Brochure (it) 877 kB, 29.04.2016 Code: b\_azm300p01\_it

Brochure (en) 857 kB, 23.07.2015 Code: b\_azm300p01\_en

Brochure (de) 863 kB, 23.07.2015 Code: b\_azm300p01\_de

**Brochure** (es) 2 MB, 03.05.2013 Code: b\_azm300p01\_es

Brochure (jp) 1 MB, 13.03.2013 Code: b\_azm300p01\_jp

Brochure (pt) 1 MB, 03.05.2013 Code: b\_azm300p01\_pt

Brochure (fr) 2 MB, 03.05.2013 Code: b\_azm300p01\_fr

Brochure (br) 2 MB, 08.03.2013 Code: b\_azm300p01\_br

Brochure (br) 2 MB, 03.05.2013 Code: b\_azm300p01\_br

Brochure (nl) 1 MB, 03.05.2013 Code: b\_azm300p01\_nl

**Brochure** (cs) 2 MB, 03.05.2013 Code: b\_azm300p01\_cs

Brochure (pl) 2 MB, 03.05.2013 Code: b\_azm300p01\_pl

**Brochure** (de) 6 MB, 15.02.2018 Code: b\_css\_brosch09\_de

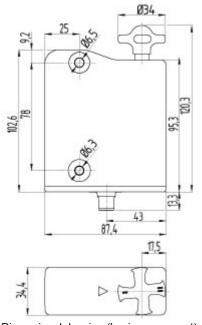
Brochure (en) 6 MB, 15.02.2018 Code: b\_css\_brosch09\_en

TÜV certification (de, en) 761 kB, 17.09.2018 Code: z\_azmp05

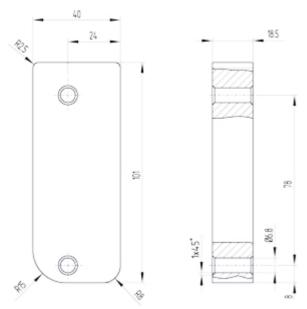
EAC certification (ru) 809 kB, 05.10.2015 Code: q\_6040p17\_ru

ECOLAB certification (en) 94 kB, 08.04.2013 Code: q\_azmp03

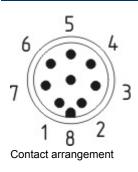
#### Images

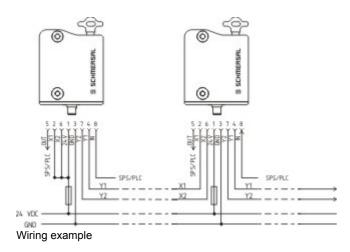


Dimensional drawing (basic component)



Dimensional drawing (miscellaneous)





#### System components

Actuator	<b>101218025 - AZ/AZM300-B1</b> <ul> <li>• 3 different directions of actuation</li> </ul>
Accessories	103002891 - MS-AZ/AZM300-B1-1
	103003172 - MP-AZ/AZM300-1

K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal The data and values have been checked throroughly. Technical modifications and errors excepted. Generiert am 13.02.2019 - 14:51:13h Kasbase 3.3.0.F.64I