



AZM300Z-ST-1P2P-T

- Universal coding with RFID technology
- Connector M12, 8-pole
- Power to unlock
- Guard locking monitored
- Diagnostic output
- Emergency exit
- Hygienic design
- Protection class IP 69
- Suitable for mounting to profile systems
- Thermoplastic enclosure
- RFID-technology for needs-based protection against tampering
- 3 different directions of actuation
- Compact design
- 3 LEDs to show operating conditions
- Suitable for hinged and sliding guards
- Series-wiring
- Manual release

Data

Ordering data

EAN (European Article Number)	4030661451084
eCl@ss number, Version 9.0	27-27-26-03
eCl@ss number, Version 11.0	27-27-26-03

Approval - Standards

Certificates	TÜV cULus ECOLAB EAC FCC IC
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General data

Standards	IEC 61508 IEC 60947-5-3 EN ISO 13849-1 EN ISO 14119
general information	Universal coding
Coding level according to ISO 14119	Low
Active principle	RFID
Frequency band RFID	125 kHz
Transmit power, maximum	-6 dB/m
Enclosure material	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
Gross weight	610 g
Time to readiness, maximum	5,000 ms
Duration of risk, maximum	200 ms
Response time safety outputs in case of switch-off by actuator, maximum	100 ms
Response time safety outputs in case of switch-off by safety inputs, maximum	1.5 ms

General data - Features

Power to unlock	Yes
Guard locking monitored	Yes
Latching	Yes
Emergency exit	Yes
Short circuit detection	Yes

Short-circuit recognition	Yes
Series-wiring	Yes
Safety functions	Yes
Integral System Diagnostics, status	Yes
Number of fail-safe digital outputs	2

Safety appraisal

Standards	EN ISO 13849-1 IEC 61508
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Safety appraisal - Interlocking

Performance level, up to	e
Control 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 appraisal - Guard locking

Performance level, up to	d
Control 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
Note (Mechanical lifetime)	When using as door stop: ≥ 50.000 operations (door mass ≤ 5 kg and actuating speed ≤ 0.5 m/s)
Angular offset between interlocking device and actuator, maximum	2 °
Clamping force in accordance with ISO14119 F_{zh}	1,150 N
Clamping force, maximum F_{max}	1,500 N
Latching force, adjustable, position 1	25 N
Latching force, adjustable, position 2	50 N
Type of the fixing screws	2x M6
Tightening torque of the fixing screws, minimum	6 Nm
Tightening torque for the fixing screws, maximum	7 Nm

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

Switch distance	2 mm
Ensured switch distance "ON" S_{ao}	1 mm
Ensured switch distance "OFF" S_{ar}	20 mm

Mechanical data - Connection technique

Terminal Connector	Connector M12, 8-pole, A-coded
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 connection of the sensors)	Unlimited number of devices, observe external line fusing, max. 31 devices in case of serial diagnostic SD

Mechanical data - Dimensions

Length of sensor	146 mm
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Width of sensor	87.5 mm
Height of sensor	55 mm

Ambient conditions

Degree of protection	IP66 to EN 60529 IP67 to EN 60529 IP69 to EN 60529
Ambient temperature, minimum	+0 °C
Ambient temperature, maximum	+60 °C
Storage and transport temperature, minimum	-10 °C
Storage and transport temperature, maximum	+90 °C
Relative humidity, maximum	93 %
Note (Relative humidity)	non-condensing non-icing
Resistance to vibrations to EN 60068-2-6	10 ... 150 Hz, amplitude 0.35 mm
Resistance to shock	30 g / 11 ms
Protection rating	III
Zulässige Aufstellhöhe über NN, maximum	2,000 m

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 IEC/EN 60664-1	3

Electrical data

Operating voltage, minimum	20.4 VDC
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Operating voltage, maximum	26.4 VDC
Notes (Power supply, general)	stabilised PELV power supply
No-load supply current I_0	100 mA
Current consumption with solenoid ON, average	200 mA
Current consumption with solenoid ON, peak	350 mA / 200 ms
Required rated short-circuit current to EN 60947-5-1	100 A
External wiring and device fuse rating	2 A gG
Switching frequency, maximum	0.5 Hz

Electrical data - Solenoid control

Switching thresholds	-3 V ... 5 V (Low) 15 V ... 30 V (High)
Current consumption at 24V	10 mA
Duty cycle solenoid	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 - Fail-safe digital inputs

Switching thresholds	-3 V ... 5 V (Low) 15 V ... 30 V (High)
Current consumption at 24V	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 - Fail-safe digital outputs

Versions	short-circuit proof, p-type
Voltage drop U_d , maximum	4 V
Current leakage I_r	0.5 mA
Voltage, Utilisation category DC12	24 VDC
Current, Utilisation category DC12	0.25 A
Voltage, Utilisation category DC13	24 VDC
Current, Utilisation category DC13	0.25 A
Test pulse duration, maximum	0.5 ms
Test pulse interval, typical	1000 ms
Classification ZVEI CB24I, Source	C2
Classification ZVEI CB24I, Sink	C1
	C2

Electrical data - Diagnostic output

Versions	short-circuit proof, p-type
Voltage drop U_d , maximum	4 V
Voltage, Utilisation category DC12	24 VDC
Current, Utilisation category DC12	0.05 A
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.
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Accessory

Recommendation (actuator)	AZ/AZM300-B1
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Notes

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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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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