SCHMERSAL
THE DNA OF SAFETY

AZM300Z-ST-1P2P-N

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

Data

Ordering data	
	AZM300Z-ST-1P2P-N
	103006869
EAN (European Article Number)	4030661451114
eCl@ss number, Version 9.0	27-27-26-03
Approval - Standards	
	TÜV cULus ECOLAB EAC FCC IC
General data	
	AZM 300
	ISO 13849-1 IEC 61508 IEC 60947-5-3 ISO 14119 IEC 62061
general information	Universal coding

Coding level according to ISO 14119	Low
	RFID
Enclosure material	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
Gross weight	637.6 g
Time to readiness, maximum	5,000 ms
Duration of risk, maximum	200 ms

General data - Features

Power to unlock	Yes
Guard locking monitored	Yes
Latching	Yes
Emergency 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

	ISO 13849-1 IEC 62061 IEC 61508

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), applicable for	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), applicable for	2
Mission Time	20 Year(s)

Mechanical data	
Mechanical life, minimum	1,000,000 Operations
Note (Mechanical lifetime)	When using as door hinge: ≥ 50.000 operations (Türmassen ≤ 5 kg and actuating speed ≤ 0.5 m/s)
Switch distance	2 mm
Ensured switch distance "ON" S_{ao}	1 mm
Ensured switch distance "OFF" S_{ar}	20 mm
Clamping force in accordance with ISO14119 F_{zh}	1,150 N
Clamping force, maximum F_{max}	1,500 N
Latching force	50 N
Tightening torque of the fixing screws, minimum	6 Nm
Tightening torque for the fixing screws, maximum	7 Nm
Mechanical data - Connection technique	
Terminal Connector	Connector M12, 8-pole, A-coded
Mechanical data - Dimensions	
Height of sensor	126 mm
Length of sensor	35 mm
Width of sensor	85 mm
Ambient conditions	
Protection class	IP66 to IEC 60529 IP67 to IEC 60529 IP69 to IEC 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
Resistance to vibrations to EN 60068-2-6	10 … 150 Hz, amplitude 0.35 mm
	30 g / 11 ms
	III

Ambient conditions - Insulation value	
Rated impulse withstand voltage	0.8 kV
	III
	3
Electrical data	
Operating voltage, minimum	20.4 VDC
Operating voltage, maximum	26.4 VDC
No-load current	100 mA
Required rated short-circuit current to EN 60947-5-1	100 A
Reaction time of actuator, maximum	100 ms
Reaction time of input, maximum	0.5 ms
Switching frequency, maximum	0.5 Hz
Note	Cable length and cable section alter the voltage drop depending on the output current
Electrical data - Solenoid control	
	-3 V ... 5 V (Low) 15 V ... 30 V (High)
Current consumption of the magnet control at 24V	10 mA
	C0
	C1 C2 C3
Electrical data - Fail-safe digital inputs	
	−3 V ... 5 V (Low) 15 V ... 30 V (High)
Current consumption of the safety inputs at 24V	5 mA
	C1
	C1 C2 C3
Electrical data - Fail-safe digital outputs	
Rated operating current (safety outputs)	250 mA

Versions	short-circuit proof, p-type
Voltage drop U_d, maximum	4 V
Current leakage	0.5 mA
Voltage, Utilisation category DC12	24 VDC
Current, Utilisation category DC12	0.3 A
Voltage, Utilisation category DC13	24 VDC
Current, Utilisation category DC13	0.3 A
	C2
	C1 C2

Electrical data - Diagnostic output	
Operating current (diagnostic output)	50 mA
Versions	short-circuit proof, p-type
Voltage drop U_d, maximum	4 V
Voltage, Utilisation category DC12	24 VDC
Current, Utilisation category DC12	0.1 A
Voltage, Utilisation category DC13	24 VDC
Current, Utilisation category DC13	0.1 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.
Accessory	
	AZ/AZM300-B1
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.

Ordering code

Product type description:

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

(1)

Z Guard locking monitored

NB, MBN, BN 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)

without Manual release

T Emergency exit

N Emergency release

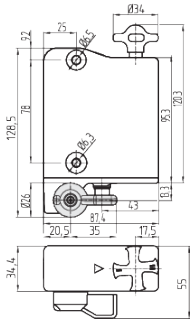
Pictures

Photo/Product/Catalogue

ID: kazm3f29

| 38,1 kB | .png | 74.083 x 79.728 mm - 210 x 226 Pixel - 72 dpi
| 578,4 kB | .jpg | 352.425 x 379.942 mm - 999 x 1077 Pixel - 72 dpi

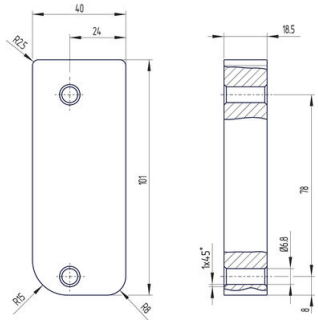
Dimension/Product/Basic



ID: 5azm3g04

| 17,7 kB | .png | 73.731 x 125.236 mm - 209 x 355 Pixel - 72 dpi
| 253,7 kB | .jpg | 352.778 x 597.606 mm - 1000 x 1694 Pixel - 72 dpi

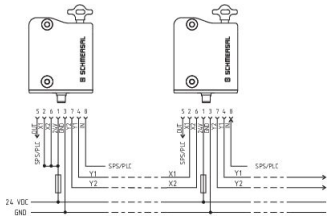
Dimension/Other



ID: kazm3g01

| 23,7 kB | .cdr |
| 133,3 kB | .jpg | 352.778 x 366.889 mm - 1000 x 1040 Pixel - 72 dpi

Graphic/Product/Wiring



ID: kazm3l01

| 37,8 kB | .cdr |
| 111,9 kB | .jpg | 352.778 x 231.422 mm - 1000 x 656 Pixel - 72 dpi

Photo/Product/Detail

ID: kazm3f30

| 719,9 kB | .jpg | 352.778 x 454.731 mm - 1000 x 1289 Pixel - 72 dpi