



AZM201Z-SK-T-1P2PW

- Power to unlock
- Guard locking monitored
- Thermoplastic enclosure
- Max. length of the sensor chain 200 m
- Self-monitoring series-wiring
- Coding in accordance to ISO 14119 by using RFID-Technology
- 3 LEDs to show operating conditions
- Sensor technology permits an offset between actuator and interlock of ± 5 mm vertically and ± 3 mm horizontally
- Suitable for hinged and sliding guards
- Intelligent diagnosis
- Manual release
- Protection class IP66, IP67
- High holding force 2000
- symmetrical construction form, assembly on 40mm profiles
- OSSD safety outputs
- Emergency exit / Emergency release suitable for retrofitting

Data

Ordering data

Product type description	AZM201Z-SK-T-1P2PW
Article number (order number)	103013908
EAN (European Article Number)	4030661493367
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 cULus FCC IC UKCA ANATEL
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General data

Standards	EN ISO 13849-1 EN ISO 14119 EN IEC 60947-5-3 EN IEC 61508
Coding	Universal coding
Coding level according to EN ISO 14119	Low
Working principle	RFID
Frequency band RFID	125 kHz
Transmitter output RFID, maximum	-6 dB/m
Housing material	Glass-fibre, reinforced thermoplastic
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	580 g

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
Safety functions	Yes
Integral system diagnostics, status	Yes

Number of safety contacts	2
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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	1.90×10^{-9} /h
PFD value	1.60×10^{-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	1.00×10^{-8} /h
PFD value	8.90×10^{-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
Note (clamping force F_{Zh})	1,000 N when used with the AZ/AZM201-B30 actuator, for indoor use.
Holding force F_{max} , maximum	2,600 N
Note (clamping force F_{max})	1,300 N when used with the AZ/AZM201-B30 actuator, for indoor use.

Latching force	30 N
Actuating speed, maximum	0.2 m/s
Type of the fixing screws	2x M6
Tightening torque of the fixing screws, maximum	8 Nm
Tightening torque of the fastening screws for the housing cover, minimum	0.7 Nm
Tightening torque of the fastening screws for the housing cover, maximum	1 Nm
Note	Torx T10

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
Cable entry	1 x M20
Termination	Screw terminals
Cable section, minimum	0.25 mm ²
Cable section, maximum	1.5 mm ²
Note	All indications including the conductor ferrules.
Wire cross-section, minimum	23 AWG
Wire cross-section, maximum	15 AWG
Wire cross-section	23 ... 15 AWG
Allowed type of cable	solid single-wire solid multi-wire flexible

Mechanical data - Dimensions

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

Ambient conditions

Degree of protection	IP66 IP67
Ambient temperature	-25 ... +60 °C
Storage and transport temperature	-25 ... +85 °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	50 mA
Current consumption with magnet ON, average	200 mA
Current consumption with magnet ON, peak	700 mA / 100 ms
Rated operating voltage	24 VDC
Operating current	1,200 mA
Required rated short-circuit current	100 A

External wire and device fuse rating	4A gG
Time to readiness, maximum	4,000 ms
Switching frequency, maximum	1 Hz

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
Rated operating current (safety outputs)	250 mA

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-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
Operating current	50 mA
Design of control elements	short-circuit proof, p-type
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
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Scope of delivery

Scope of delivery	Actuator must be ordered separately. Triangular key for AZM 201
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Accessory

Recommendation (actuator)	AZ/AZM201-B1 AZ/AZM201-B30
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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:
AZM201(1)-(2)-(3)-T-(4)-(5)

(1)

Z	Solenoid interlock monitored
B	Actuator monitored

(2)

without	Standard coding
I1	Individual coding
I2	Individual coding, multiple teaching

(3)

SK	Screw terminals
CC	Cage clamps
ST2	Connector plug M12, 8-pole

(4)

1P2PW	1 diagnostic output, p-type and >2 safety outputs, p-type > (combined diagnostic signal: guard system closed and interlock locked)
SD2P	serial diagnostic output and 2 p-type safety outputs

(5)

without	Power to unlock
A	Power to lock

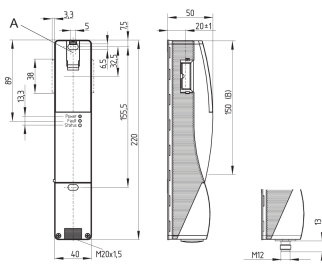
Pictures

Product picture (catalogue individual photo)



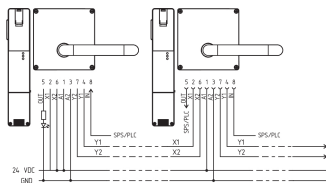
ID: kazm2f48
| 335.0 kB | .png | 74.083 x 340.783 mm - 210 x 966 px - 72 dpi
| 735.6 kB | .jpg | 135.819 x 625.122 mm - 385 x 1772 px - 72 dpi
| 23.6 kB | .jpg | 26.811 x 123.472 mm - 76 x 350 px - 72 dpi

Dimensional drawing basic component



ID: lazm2g13
| 139.2 kB | .jpg | 352.778 x 290.336 mm - 1000 x 823 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

Schmersal Ltd., Sparrowhawk Close, WR14 1GL Malvern
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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