



## AZM201Z-SK-T-1P2PW-A-DU

- Power to lock
- 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  $\pm 5$  mm vertically and  $\pm 3$  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-A-DU
Article number (order number)	103044811
EAN (European Article Number)	4030661563831
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 EAC FCC IC
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## General data

Standards	EN IEC 62061 EN ISO 13849-1 EN ISO 14119 EN IEC 60947-5-1 EN IEC 60947-5-3 EN IEC 61508
Coding	Universal coding
Coding level according to EN ISO 14119	Low
Working principle	RFID
Enclosure material	Glass-fibre, reinforced thermoplastic
Gross weight	584 g
Time to readiness, maximum	4,000 ms
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	0.5 ms

## General data - Features

Power to lock	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

### Safety classification

Standards EN ISO 13849-1  
EN IEC 62061  
EN IEC 61508

### Safety classification - Interlocking function

Performance Level, up to e  
Category 4  
PFH value  $1.90 \times 10^{-9}$  /h  
PFD value  $1.60 \times 10^{-4}$   
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  $1.00 \times 10^{-8}$  /h  
PFD value  $8.90 \times 10^{-4}$   
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  
Holding force  $F_{max}$ , maximum 2,600 N  
Latching force 30 N

Actuating speed, maximum 0.2 m/s

### Mechanical data - Connection technique

Termination	Screw terminals Screw terminals M20 x 1.5
Cable section, minimum	0.25 mm <sup>2</sup>
Cable section, maximum	1.5 mm <sup>2</sup>
Note (Cable section)	All indications including the conductor ferrules.
Wire cross-section, minimum	23 AWG
Wire cross-section, maximum	15 AWG

### Mechanical data - Dimensions

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

### Ambient conditions

Degree of protection	IP67 IP66
Ambient temperature, minimum	-25 °C
Ambient temperature, maximum	+60 °C
Storage and transport temperature, minimum	-25 °C
Storage and transport temperature, maximum	+85 °C
Relative humidity, minimum	30 %
Relative humidity, maximum	95 %
Note (Relative humidity)	non-condensing
Resistance to vibration to EN 60068-2-6	10 ... 150 Hz, amplitude 0.35 mm
Resistance to shock	30 g / 11 ms
Protection class	III

## Ambient conditions - Insulation values

Rated insulation voltage $U_i$	32 VDC
Rated impulse withstand voltage $U_{imp}$	0.8 kV
Overtoltage category	III
Degree of pollution to VDE 0100	3

## Electrical data

Operating voltage, minimum	20.4 VDC
Operating voltage, maximum	26.4 VDC
No-load supply current $I_0$ , maximum	50 mA
Current consumption with magnet ON, average	200 mA
Current consumption with magnet ON, peak	700 mA / 100 ms
Operating current	1,200 mA
Switching frequency, approx.	1 Hz

## Electrical data - Magnet control

Switching thresholds	-3 V ... 5 V (Low) 15 V ... 30 V (High)
Classification ZVEI CB24I, Sink	C0
Classification ZVEI CB24I, Source	C1 C2 C3

## Electrical data - Safety digital inputs

Switching thresholds	-3 V ... 5 V (Low) 15 V ... 30 V (High)
Classification ZVEI CB24I, Sink	C1

Classification ZVEI CB24I, Source C1  
C2  
C3

### Electrical data - Safety digital outputs

Rated operating current (safety outputs) 250 mA  
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  
Classification ZVEI CB24I, Source C2  
Classification ZVEI CB24I, Sink C1  
C2

### Electrical data - Diagnostic outputs

Operating current 50 mA  
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

### Scope of delivery

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

## Accessory

Recommendation (actuator)      AZ/AZM201-B1  
AZ/AZM201-B30

## 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)	
<b>Z</b>	Solenoid interlock monitored
<b>B</b>	Actuator monitored
(2)	
<b>without</b>	Standard coding
<b>I1</b>	Individual coding
<b>I2</b>	Individual coding, re-teaching enabled
(3)	
<b>SK</b>	Screw terminals
<b>CC</b>	Cage clamps
<b>ST2</b>	Connector plug M12, 8-pole
(4)	
<b>1P2PW</b>	1 diagnostic output, p-type and >2 safety outputs, p-type > (combined diagnostic signal: guard system closed and interlock locked)
<b>SD2P</b>	serial diagnostic output and 2 p-type safety outputs
(5)	

without

Power to unlock

A

Power to lock

## Pictures

### Product picture (catalogue individual photo)

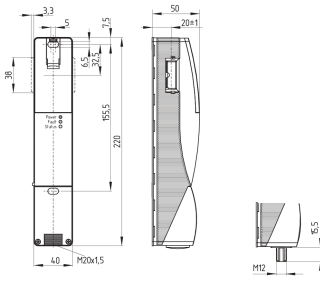


ID: kazm2f48

| 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

### Dimensional drawing basic component



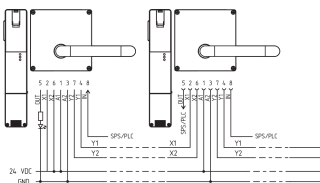
ID: 1azm2g12

| 146.3 kB | .jpg | 352.778 x 308.681 mm - 1000 x 875 px - 72 dpi

| 5.3 kB | .png | 74.083 x 64.911 mm - 210 x 184 px - 72 dpi

| 21.1 kB | .jpg | 169.686 x 148.519 mm - 481 x 421 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

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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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