



AZM201Z-ST-T-1P2PW-2965-1-DU

- 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-ST-T-1P2PW-2965-1-DU |
| Article number (order number) | 103044810 |
| EAN (European Article Number) | 4030661563824 |
| 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 |
|--------------|----------------------------------|

General data

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| 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 |
| Enclosure material | Glass-fibre, reinforced thermoplastic |
| Gross weight | 508 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

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|------------------------------|-----|
| Power to unlock | Yes |
| Solenoid interlock monitored | Yes |

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| Manual release | Yes |
| Short circuit detection | Yes |
| Cross-circuit detection | Yes |
| Series-wiring | Yes |
| Idle assignable pushbutton | Yes |
| Freely assignable LED | Yes |
| Safety functions | Yes |
| Integral system diagnostics, status | Yes |
| Number of safety contacts | 2 |

Safety classification

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

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

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|--------------------------|--------------------------|
| Performance Level, up to | d |
| Category | 2 |
| PFH value | 1.00×10^{-8} /h |
| PFD value | 8.90×10^{-4} |

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| Safety Integrity Level (SIL), suitable for applications in | 2 |
| Mission time | 20 Year(s) |

Mechanical data

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|--|----------------------|
| 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 |
| Type of the fixing screws | 2x M6 |

Mechanical data - Connection technique

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|-----------------------------------|--|
| Termination | Connector M23, 12-pole |
| 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 |

Mechanical data - Dimensions

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

Ambient conditions

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|----------------------|--------------|
| 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 vibrations | 10 ... 150 Hz, amplitude 0.35 mm |
| Resistance to shock | 30 g / 11 ms |
| Protection class | III |

Ambient conditions - Insulation values

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|---|--------|
| 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

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|---|------------------------------|
| Operating voltage, minimum | 20.4 VDC |
| Operating voltage, maximum | 26.4 VDC |
| Note (Power supply, general) | stabilised PELV power supply |
| 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 |

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|--------------------------------------|-----------------------------------|
| Operating current | 1,200 mA |
| Required rated short-circuit current | 100 A |
| External wire and device fuse rating | ELEC_EXT_WIRE_DEV_FUSE_RATING3AGG |
| Switching frequency, maximum | 1 Hz |

Electrical data - Magnet control

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|-----------------------------------|--|
| Designation, Magnet control | IN |
| Switching thresholds | -3 V ... 5 V (Low) 15 V ... 30 V (High) |
| 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

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|-----------------------------------|--|
| Designation, Safety inputs | X1 and X2 |
| Switching thresholds | -3 V ... 5 V (Low) 15 V ... 30 V (High) |
| Current consumption at 24V | 2 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 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 outputs

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|--|--------|
| Designation, Diagnostic outputs | OUT |
| 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

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| Note (LED switching conditions display) | Operating condition: LED green Error / functional defect: LED red Supply voltage UB: LED green |
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Pin assignment

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|--------|-----------------------|
| 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 |
| PIN 9 | white LED |
| PIN 10 | Key button |
| PIN 11 | Key button |
| PIN 12 | Not used |

Scope of delivery

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

Accessory

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

Note

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| 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, re-teaching enabled

(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)



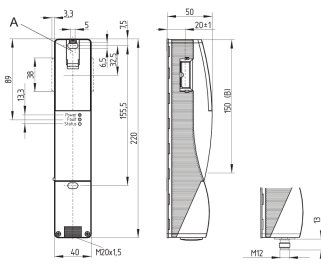
ID: kazm2f28

| 993.8 kB | .jpg | 177.447 x 833.261 mm - 503 x 2362 px - 72 dpi

| 276.4 kB | .png | 74.083 x 347.839 mm - 210 x 986 px - 72 dpi

| 10.6 kB | .jpg | 42.686 x 200.025 mm - 121 x 567 px - 72 dpi

Dimensional drawing basic component



ID: 1azm2g13

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