



## AZM201B-SK-T-1P2PW-A

- Actuator monitored
- 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

|                               |               |
|-------------------------------|---------------|
| EAN (European Article Number) | 4030661493398 |
| 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 |
|              | EAC   |
|              | FCC   |
|              | IC    |

## General data

|  |  |
|--|--|
| Standards  | IEC 60947-5-1<br>EN ISO 13849-1<br>IEC 61508<br>IEC 60947-5-3<br>EN ISO 14119<br>IEC 62061 |
| general information  | Universal coding   |
| Coding level according to ISO 14119  | Low  |
| Active principle   | RFID   |
| Enclosure material   | Glass-fibre, reinforced thermoplastic  |
| Gross weight   | 588 g  |
| Time to readiness, maximum   | 4,000 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 | 0.5 ms   |

## General data - Features

|                                     |     |
|-------------------------------------|-----|
| Power to lock                       | Yes |
| Actuator monitored                  | Yes |
| Manual 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

|           |  |
|-----------|--|
| Standards | EN ISO 13849-1<br>IEC 62061<br>IEC 61508 |
|-----------|--|

## Safety appraisal - Interlocking

|  |                          |
|--|--------------------------|
| Performance level, up to                                   | e                        |
| Control 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 appraisal - Guard locking

|              |            |
|--------------|------------|
| Mission Time | 20 Year(s) |
|--------------|------------|

## Mechanical data

|   |                      |
|---|----------------------|
| Mechanical life, minimum                            | 1,000,000 Operations |
| Clamping force in accordance with ISO14119 $F_{zh}$ | 2,000 N              |
| Clamping force, maximum $F_{max}$                   | 2,600 N              |
| Latching force                                      | 30 N                 |
| Actuating speed, maximum                            | 0.2 m/s              |

## Mechanical data - Connection technique

|                        |                      |
|------------------------|----------------------|
| Terminal Connector     | Screw connection     |
| Cable section, minimum | 0.25 mm <sup>2</sup> |

|                             |   |
|-----------------------------|---|
| Cable section, maximum      | 1.5 mm <sup>2</sup>   |
| Note (Cable section)        | All indications about the cable section are 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                       | IP66 to EN 60529<br>IP67 to EN 60529 |
| 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 to EN 60068-2-6   | 10 ... 150 Hz, amplitude 0.35 mm     |
| Resistance to shock                        | 30 g / 11 ms                         |
| Protection rating                          | III                                  |

### 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 VDE 0100 | 3   |

## Electrical data

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

## Electrical data - Solenoid control

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

## Electrical data - Fail-safe digital inputs

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

## Electrical data - Fail-safe digital outputs

|  |          |
|--|----------|
| Rated operating current (safety outputs) | 250 mA   |
| Voltage drop $U_d$ , maximum             | 4 V      |
| Current leakage $I_r$                    | 0.5 mA   |
| Voltage, Utilisation category DC13       | 24 VDC   |
| Current, Utilisation category DC13       | 0.25 A   |
| Classification ZVEI CB24I, Source        | C2       |
| Classification ZVEI CB24I, Sink          | C1<br>C2 |

### Electrical data - Diagnostic output

|                                    |        |
|------------------------------------|--------|
| Operating current                  | 50 mA  |
| Voltage drop $U_d$ , maximum       | 4 V    |
| Voltage, Utilisation category DC13 | 24 VDC |
| Current, Utilisation category DC13 | 0.05 A |

### Status indication

|   |  |
|---|--|
| Note (LED switching conditions display) | Operating condition: LED green<br>Error / functional defect: LED red<br>Supply voltage UB: LED green |
|---|--|

### Scope of delivery

|                      |   |
|----------------------|---|
| Included in delivery | Actuators must be ordered separately.<br>Triangular key for AZM 201 |
|----------------------|---|

### Accessory

|                           |                               |
|---------------------------|-------------------------------|
| Recommendation (actuator) | AZ/AZM201-B1<br>AZ/AZM201-B30 |
|---------------------------|-------------------------------|

### Notes

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.

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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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