



# AZM201Z-SK-T-SD2P

- 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
- ullet 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) 4030661527451

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 EN ISO 13849-1

EN ISO 14119 IEC 60947-5-1 IEC 60947-5-3 IEC 61508 IEC 62061

general information Universal coding

Coding level according to ISO 14119 Low

Active principle RFID

Enclosure material Glass-fibre, reinforced thermoplastic

Gross weight 585 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 unlock Yes

Guard locking monitored Yes

Serial diagnostics 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

IEC 62061 IEC 61508

# Safety appraisal - Interlocking

Performance level, up to

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

Mission Time

20 Year(s)

3

# Safety appraisal - Guard locking

Mission Time 20 Year(s)

### **Mechanical data**

Mechanical life, minimum 1,000,000 Operations

Clamping force in accordance with 2,000 N

ISO14119 F<sub>zh</sub>

Clamping force, maximum F<sub>max</sub> 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

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

Restistance to shock 30 g / 11 ms

Protection rating III

# **Ambient conditions - Insulation value**

Rated insulation voltage U<sub>i</sub> 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<sub>0</sub> 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)

15 V ... 30 V (High)

Classification ZVEI CB24I, Sink C0

Classification ZVEI CB24I, Source C1

C2

C3

# Electrical data - Fail-safe digital inputs

Switching thresholds  $-3 \text{ V} \dots 5 \text{ V} \text{ (Low)}$ 

15 V ... 30 V (High)

Classification ZVEI CB24I, Sink C1

Classification ZVEI CB24I, Source C1

C2

C3

### **Electrical data - Fail-safe digital outputs**

Rated operating current (safety outputs) 250 mA

Voltage drop U<sub>d</sub>, maximum 4 V

Current leakage I<sub>r</sub> 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

C2

# **Electrical data - Diagnostic output**

Operating current 50 mA

Voltage drop U<sub>d</sub>, 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

Error / functional defect: LED red Supply voltage UB: LED green

### Scope of delivery

Included in delivery Actuators must be ordered separately.

Triangular key for AZM 201

### Accessory

Recommendation (actuator) AZ/AZM201-B1

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.

Schmersal, Inc., 15 Skyline Drive, Hawthorne, NY 10532

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.

Generated on: 11/9/2021, 9:24 AM