



## AZ201ST-T-1P2P-2965-1

- Thermoplastic enclosure
- RFID-technology for needs-based protection against tampering
- Max. length of the sensor chain 200 m
- Self-monitoring series-wiring
- 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

## Data

### Ordering data

EAN (European Article Number)

4030661558684

### General data

Standards

EN ISO 13849-1  
EN ISO 14119  
IEC 60947-5-1  
IEC 60947-5-3  
IEC 61508  
IEC 62061

general information

Individual coding, multiple teaching

Coding level according to ISO 14119

Low

Active principle

RFID, 125 kHz

Enclosure material

Glass-fibre, reinforced thermoplastic

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

Short circuit detection	Yes
Short-circuit recognition	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 appraisal

Standards	EN ISO 13849-1 IEC 61508
Performance level, up to	e
Control category to EN13849	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)

## Mechanical data

Mechanical life, minimum	1,000,000 Operations
Hysteresis (Switch distance), maximum	1.5 mm

Repeat accuracy R R	0.5 mm
Latching force	30 N
Actuating speed, maximum	0.2 m/s

### Mechanical data - Switching distances according IEC 60947-5-3

Ensured switch distance "ON" $S_{ao}$	4 mm
Ensured switch distance "OFF" $S_{ar}$	30 mm

### Mechanical data - Connection technique

Terminal Connector	Connector M23, 12-pole
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### 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	+70 °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 $I_0$	100 mA
Operating current	700 mA
Switching frequency, approx.	1 Hz

### Electrical data - Fail-safe 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 - 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

**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 Error / functional defect: LED red Supply voltage UB: LED green
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**Pin assignment**

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 OUT
PIN 6	X2 Safety input 2
PIN 7	Y2 Safety output 2
PIN 9	white LED
PIN 10	Key button
PIN 11	Key button
PIN 12	Not used

**Scope of delivery**

Included in delivery	Actuators must be ordered separately.
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## Accessory

Recommendation (actuator)

AZ/AZM201-B1

AZ/AZM201-B30

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.

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