

## Datasheet - AZ201ST2-T-1P2P

Safety switch with separate actuator / AZ201



(Minor differences between the printed image and the original product may exist!)

- Thermoplastic enclosure
- RFID-technology for needs-based protection against tampering
- Max. length of the sensor chain 200 m
- Self-monitoring series-wiring of 31 sensors
- 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

### Ordering details

Product type description	AZ201ST2-T-1P2P
Article number	103015816
EAN Code	4030661504308
eCl@ss	27-27-26-02

### Approval


Approval



### Classification

Standards	EN ISO 13849-1, IEC 61508
PL	up e
Control category	up 4
PFH	$1.9 \times 10^{-9}$
PFD value	$1.6 \times 10^{-4}$
SIL	3
Mission time	20 Years

### Global Properties

Permanent light	AZ201
Standards	IEC 60947-5-1, IEC 60947-5-3, ISO 14119, ISO 13849-1, IEC 61508, IEC 62061
Compliance with the Directives (Y/N) 	Yes
Suitable for safety functions (Y/N)	Yes
Protection rating	III
Series-wiring	up to 31 components
Length of the sensor chain	200
Active principle	RFID, 125 kHz
Coding levels according to ISO 14119	High
Coding	Individual coding, multiple teaching
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic
Housing coating	None
Weight	550 g
Idle assignable pushbutton and LED (Y/N)	No
Response time	
- Actuator	≤ 100 ms
- Inputs	≤ 0,5 ms
Duration of risk	< 200 ms
Time to readiness	< 4000 ms
Recommended actuator	AZ/AZM201-B1, AZ/AZM201-B30

## Mechanical data

Design of electrical connection	Connector M12, 8-pole
Cable section	
- Min. Cable section	-
- Max. Cable section	-
AWG-Number	-
Mechanical life	≥ 1.000.000 operations
notice	-
restistance to shock	30 / 11
Resistance to vibration	10 ... 150 HZ, Amplitude 0,35 mm
Emergency unlocking device (Y/N)	No
Manual release (Y/N)	No
Emergency release (Y/N)	No
Latching force	30
Max. Actuating speed	≤ 0,2

## Ambient conditions

Ambient temperature	
- Min. environmental temperature	-25
- Max. environmental temperature	+70
Storage and transport temperature	
- Min. Storage and transport temperature	-25
- Max. Storage and transport temperature	+85
Relative humidity	30... 95
- non-condensing	
Protection class	IP66, IP67 to IEC/EN 60529
Air clearances and creepage distances To IEC/EN 60664-1	
- Rated impulse withstand voltage	0,8

- Overvoltage category	III
- Degree of pollution	3

### Electrical data

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Number of auxiliary contacts	0
Number of safety contacts	2
Cross circuit/short circuit recognition possible (Y/N)	Yes
Supply voltage	
- Min. supply voltage	20.4 VDC
- Max. supply voltage	26.4 VDC
Switch frequency	1 HZ
Rated insulation voltage	32 VDC
Operating current	0,7 A
Utilisation category	DC-13
No-load current	0,1 A
Device insulation	≤ 4 A if used in accordance with UL 508

### Electrical data - Safety inputs

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Safety inputs	X1 and X2
Rated operating voltage	- 3 ... 5 (Low) 15 ... 30 (High)
Operating current	typically 2 at 24

### Electrical data - Safety outputs

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Safety outputs	Y1 and Y2
Fuse rating	short-circuit proof, p-type
Rated operating voltage	0 ... 4 under
Residual current	≤ 0,5
Operating current	each 0,25 A
Utilisation category	DC-13

### Electrical data - Diagnostic output

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Serial diagnostics (Y/N)	No
Fuse rating	p-type, short-circuit proof
Operating current	0,05 A
Utilisation category	DC-13: 24 V / 0,05 A
Wiring capacitance for serial diagnostics	-
Operating principle of the diagnostic output	The short-circuit proof diagnostic output OUT can be used for central visualisation or control tasks, e.g. in a PLC.
notice	The diagnostic output is not a safety-relevant output!

### LED switching conditions display

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LED switching conditions display (Y/N)	Yes
LED switching conditions display	
- Supply voltage	green LED
- switching condition	yellow LED
- Error functional defect	red LED

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Explosion protection categories for gases	None
Explosion protected category for dusts	None

## Dimensions

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Dimensions of the sensor	
- Width of sensor	40
- Height of sensor	220
- Length of sensor	50

## Pin assignment

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1	A1 Supply voltage
2	X1 Safety input 1
3	A2 GND
4	Y1 Safety output 1
5	OUT Diagnostic output
6	X2 Safety input 2
7	Y2 Safety output 2
8	-

## Included in delivery

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Actuators must be ordered separately.

## Ordering code

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AZ201(1)-T-(2)

(1)

<b>SK</b>	Screw connection
<b>CC</b>	Spring pulley connection
<b>ST1</b>	connector M23 x 1, 8+1-pole
<b>ST2</b>	connector M12 x 1, 8-pole

(2)

<b>1P2P</b>	1 Diagnostic output and 2 Safety outputs, p-type
<b>SD2P</b>	serial diagnostic output and 2 Safety outputs, p-type

## Documents

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**Operating instructions and Declaration of conformity** (pt) 153 kB, 16.10.2017

Code: mrl\_az201\_pt

**Operating instructions and Declaration of conformity** (fr) 343 kB, 19.10.2017

Code: mrl\_az201\_fr

**Operating instructions and Declaration of conformity** (it) 315 kB, 16.10.2017

Code: mrl\_az201\_it

**Operating instructions and Declaration of conformity** (pl) 364 kB, 02.03.2018

Code: mrl\_az201\_pl

**Operating instructions and Declaration of conformity (es)** 152 kB, 16.10.2017

Code: mrl\_az201\_es

**Operating instructions and Declaration of conformity (nl)** 341 kB, 02.08.2018

Code: mrl\_az201\_nl

**Operating instructions and Declaration of conformity (en)** 313 kB, 04.10.2017

Code: mrl\_az201\_en

**Operating instructions and Declaration of conformity (de)** 301 kB, 04.10.2017

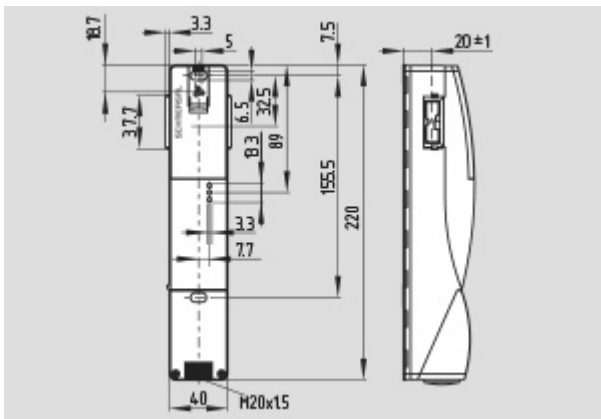
Code: mrl\_az201\_de

**TÜV certification (de, en)** 352 kB, 06.02.2018

Code: z\_azmp07

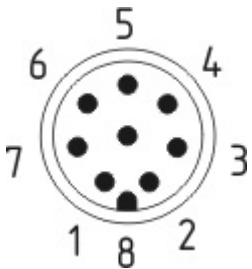
## Images

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Dimensional drawing (miscellaneous)

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Contact arrangement

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The data and values have been checked thoroughly. Technical modifications and errors excepted.

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