

## AZM201Z-ST2-T-1P2PW



- Manual release
- Power to unlock
- Intelligent diagnosis
- Thermoplastic enclosure
- Guard locking monitored
- Self-monitoring series-wiring
- 3 LEDs to show operating conditions
- Max. length of the sensor chain 200 m
- Suitable for hinged and sliding guards
- RFID-technology for needs-based protection against tampering
- Sensor technology permits an offset between actuator and interlock of  $\pm 5$  mm vertically and  $\pm 3$  mm horizontally

### Data

#### Ordering data

Product type description	AZM201Z-ST2-T-1P2PW
Article number (order number)	103013909
EAN (European Article Number)	4030661493374
eCI@ss number, Version 9.0	27-27-26-03

#### Certifications

Certificates	TÜV cULus EAC
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#### General data

Product name	AZM 201
Standards	IEC 60947-5-1
	ISO 13849-1
	IEC 61508
	IEC 60947-5-3
	ISO 14119
general information	IEC 62061
	Universal coding Low

Active principle	RFID
Enclosure material	Glass-fibre, reinforced thermoplastic
Gross weight	495 g
Time to readiness, maximum	4,000 ms
Duration of risk, maximum	200 ms

### General data - Features

Power to unlock	Yes
Guard locking 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	ISO 13849-1 IEC 62061 IEC 61508
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### Safety appraisal - Interlocking

Performance Level	e
Control category	4
PFH-value	$1.90 \times 10^{-9}$ /h
PFD value	$1.60 \times 10^{-4}$
Safety Integrity Level (SIL)	3
Mission Time	20 Year(s)

### Safety appraisal - Guard locking

Performance Level	d
Control category	2
PFH-value	$1.00 \times 10^{-8}$ /h
PFD value	$8.90 \times 10^{-4}$
Safety Integrity Level (SIL)	2
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	Connector M12, 8-pole
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### Mechanical data - Dimensions

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

### Ambient conditions

Protection class	IP66 to IEC 60529 IP67 to IEC 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 III

### Ambient conditions - Insulation value

Rated impulse withstand voltage	0.8 kV III
Degree of pollution to VDE 0100	3

### Electrical data

Operating voltage, minimum	20.4 VDC
Operating voltage, maximum	26.4 VDC
No-load current	600 mA
Operating current	1,200 mA
Reaction time of actuator, maximum	100 ms

Reaction time of input, maximum	0.5 ms
Switching frequency, approx.	1 Hz

### Electrical data - Solenoid control

Switching thresholds of magnet inputs	-3 V ... 5 V (Low) 15 V ... 30 V (High)
	C0
	C1
	C2
	C3

### Electrical data - Fail-safe digital inputs

Switching thresholds of fail-safe inputs	-3 V ... 5 V (Low) 15 V ... 30 V (High)
	C1
	C1
	C2
	C3

### Electrical data - Fail-safe digital outputs

Rated operating current (safety outputs)	250 mA
	4 V
Current leakage	0.5 mA
	C2
	C1
	C2

### Electrical data - Diagnostic output

Operating current (diagnostic output)	50 mA
	4 V

### 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
PIN 6	X2 Safety input 2
PIN 7	Y2 Safety output 2
PIN 8	IN Solenoid control

### Scope of delivery

Included in delivery	Actuators must be ordered separately. Triangular key for AZM 201
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### Accessory

Recommendation (actuator)	AZ/AZM201-B1 AZ/AZM201-B30
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### 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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### Ordering code

Product type description:

AZM201(1)-(2)-(3)-T-(4)-(5)

(1)

<b>Z</b>	Solenoid interlock monitored
<b>B</b>	Actuator monitored

(2)

<b>without</b>	Standard coding
<b>I1</b>	Individual coding
<b>I2</b>	Individual coding, re-teaching enabled

(3)

<b>SK</b>	Screw terminals
<b>CC</b>	Cage clamps
<b>ST</b>	Connector plug M23, 12-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

## Documents

### Operating instructions and Declaration of conformity

(543,3 kB, 23.04.2020, F)

### TÜV certification

(587,7 kB, 06.12.2019)

### UL Certificate

(378,9 kB, 01.08.2019)

### EAC certification

### Brochure

(5,7 MB, 07.11.2019, Revision 09)

### SISTEMA-VDMA library

(134,9 kB, 19.06.2019)

## Pictures

## Product picture (catalogue individual photo)



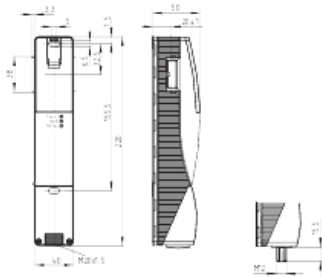
ID: kazm2f51

| 218,5 kB | .png | 74.083 x 343.606 mm - 210 x 974  
Pixel - 72 dpi

| 293,8 kB | .jpg | 27.093 x 125.645 mm - 320 x 1484  
Pixel - 300 dpi

| 441,1 kB | .jpg | 134.761 x 625.122 mm - 382 x 1772  
Pixel - 72 dpi

## Dimensional drawing basic component



ID: 1azm2g12

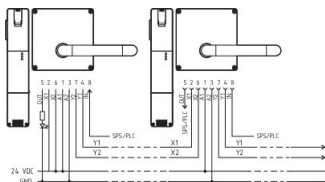
| 5,3 kB | .png | 74.083 x 64.911 mm - 210 x 184 Pixel  
- 72 dpi

| 21,1 kB | .jpg | 169.686 x 148.519 mm - 481 x 421  
Pixel - 72 dpi

| 146,3 kB | .jpg | 352.778 x 308.681 mm - 1000 x 875  
Pixel - 72 dpi

| 31,8 kB | .jpg | 112.889 x 98.778 mm - 320 x 280  
Pixel - 72 dpi

## Wiring example



ID: kazm2l26

| 105,6 kB | .jpg | 352.778 x 192.969 mm - 1000 x 547  
Pixel - 72 dpi

| 50,3 kB | .cdr |

## System components

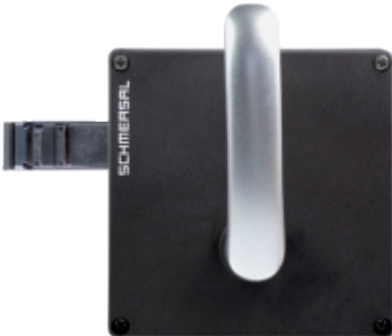
### Actuator

103013499 AZ/AZM201-B30-RTAG1P1-SZ



- Actuator for hinged guards
- Easy and intuitive operation
- No risk of injury from protruding actuator
- No supplementary door handles required
- Does not protrude into the door opening
- for right hinged doors
- with handle and Emergency exit handle
- with integrated lockout tag

103013497 AZ/AZM201-B30-RTAG1P1



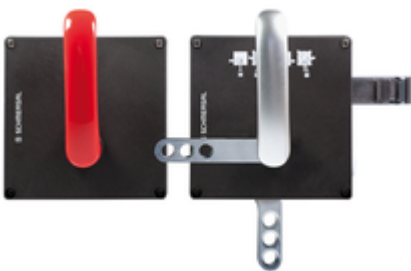
- Actuator for hinged guards
- Easy and intuitive operation
- No risk of injury from protruding actuator
- No supplementary door handles required
- Does not protrude into the door opening
- for right hinged doors
- with handle and Emergency exit handle

103013502 AZ/AZM201-B30-RTAG1



- Actuator for hinged guards
- Easy and intuitive operation
- No risk of injury from protruding actuator
- No supplementary door handles required
- Does not protrude into the door opening
- for right hinged doors
- with handle

103013500 AZ/AZM201-B30-LTAG1P1-SZ



- Actuator for hinged guards
- Easy and intuitive operation
- No risk of injury from protruding actuator
- No supplementary door handles required
- Does not protrude into the door opening
- for left hinged doors
- with handle and Emergency exit handle
- with integrated lockout tag





103013498 AZ/AZM201-B30-LTAG1P1

- Actuator for hinged guards
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - for left hinged doors
  - with handle and Emergency exit handle
- 



103013501 AZ/AZM201-B30-LTAG1

- Actuator for hinged guards
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - for left hinged doors
  - with handle
- 



103013495 AZ/AZM201-B1-RTP0

- Actuators with return spring
  - Actuator for sliding guards
  - Tolerates up to max. 5 mm overtravel
  - for right hinged doors
  - with Emergency exit
- 



103013494 AZ/AZM201-B1-RT

- Actuators with return spring
  - Actuator for sliding guards
  - Tolerates up to max. 5 mm overtravel
  - for right hinged doors
-



103013496 AZ/AZM201-B1-LTP0

- Actuators with return spring
- Actuator for sliding guards
- Tolerates up to max. 5 mm overtravel
- for left hinged doors
- with Emergency exit



103013493 AZ/AZM201-B1-LT

- Actuators with return spring
- Actuator for sliding guards
- Tolerates up to max. 5 mm overtravel
- for left hinged doors



103015820 AZ/AZM201-B30-LTAG1P30

- for left hinged doors
- with handle



103015823 AZ/AZM201-B30-RTAG1P30

- for right hinged doors
- with handle



103015821 AZ/AZM201-B30-LTAG1P31

- for left hinged doors
- with handle and Emergency exit handle



103015824 AZ/AZM201-B30-RTAG1P31

- for right hinged doors
- with handle and Emergency exit handle



103015822 AZ/AZM201-B30-LTAG1P31-SZ

- for left hinged doors
- with handle and Emergency exit handle
- with integrated lockout tag



103015825 AZ/AZM201-B30-RTAG1P31-SZ

- for right hinged doors
- with handle and Emergency exit handle
- with integrated lockout tag



103026321 AZ/AZM201-B30-RTAG1P20-SZ



103026322 AZ/AZM201-B30-LTAG1P20-SZ

## Accessories

101194438 SZ 200



- Suitable for mounting inside and outside of the hazardous area
- To prevent inadvertent closing, e.g. during maintenance
- For complex plant
- Prevents actuation of the switch
- Lockout tag with 5 circular holes



101196397 SZ 200-1

- Suitable for mounting inside and outside of the hazardous area
- To prevent inadvertent closing, e.g. during maintenance
- For complex plant
- Prevents actuation of the switch
- Lockout tag with 6 circular holes

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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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