

## AZM300B-I2-ST-SD2P-A



- Power to lock
- Series-wiring
- Compact design
- Manual release
- Actuator monitored
- Connector M12, 8-pole
- Thermoplastic enclosure
- serial diagnostic output
- 3 different directions of actuation
- 3 LEDs to show operating conditions
- Suitable for hinged and sliding guards
- Suitable for mounting to profile systems
- Coding level "High" according to ISO 14119
- Repeated individual coding with RFID technology
- RFID-technology for needs-based protection against tampering

### Data

#### Ordering data

|                               |                      |
|-------------------------------|----------------------|
|                               | AZM300B-I2-ST-SD2P-A |
|                               | 103001428            |
| EAN (European Article Number) | 4030661425870        |
| eCl@ss number, Version 9.0    | 27-27-26-03          |

#### Approval - Standards

TÜV  
cULus  
ECOLAB  
EAC  
FCC  
IC

#### General data

AZM 300

|                                     |                                                                   |
|-------------------------------------|-------------------------------------------------------------------|
|                                     | ISO 13849-1                                                       |
|                                     | IEC 61508                                                         |
|                                     | IEC 60947-5-3                                                     |
|                                     | ISO 14119                                                         |
|                                     | IEC 62061                                                         |
| general information                 | Individual coding, multiple teaching                              |
| Coding level according to ISO 14119 | High                                                              |
|                                     | RFID                                                              |
| Enclosure material                  | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing |
| Gross weight                        | 610 g                                                             |
| Time to readiness, maximum          | 5,000 ms                                                          |
| Duration of risk, maximum           | 200 ms                                                            |

#### General data - Features

|                                     |     |
|-------------------------------------|-----|
| Power to lock                       | Yes |
| Actuator monitored                  | Yes |
| Serial diagnostics                  | Yes |
| Latching                            | 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

ISO 13849-1  
IEC 62061  
IEC 61508

#### Safety appraisal - Interlocking

|                                              |                           |
|----------------------------------------------|---------------------------|
| Performance level, up to                     | e                         |
| Control category                             | 4                         |
| PFH-value                                    | $5.20 \times 10^{-10}$ /h |
| PFD value                                    | $4.50 \times 10^{-5}$     |
| Safety Integrity Level (SIL), applicable for | 3                         |
| Mission Time                                 | 20 Year(s)                |

#### Mechanical data

|                          |                      |
|--------------------------|----------------------|
| Mechanical life, minimum | 1,000,000 Operations |
|--------------------------|----------------------|

|                                                            |                                                                                                               |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Note (Mechanical lifetime)                                 | When using as door hinge: $\geq 50.000$ operations (Türmassen $\leq 5$ kg and actuating speed $\leq 0.5$ m/s) |
| Switch distance                                            | 2 mm                                                                                                          |
| Ensured switch distance "ON" $S_{ao}$                      | 1 mm                                                                                                          |
| Ensured switch distance "OFF" $S_{ar}$                     | 20 mm                                                                                                         |
| Clamping force in accordance with ISO14119 F <sub>zh</sub> | 1,150 N                                                                                                       |
| Clamping force, maximum F <sub>max</sub>                   | 1,500 N                                                                                                       |
| Latching force                                             | 50 N                                                                                                          |
| Tightening torque of the fixing screws, minimum            | 6 Nm                                                                                                          |
| Tightening torque for the fixing screws, maximum           | 7 Nm                                                                                                          |

#### Mechanical data - Connection technique

|                    |                                |
|--------------------|--------------------------------|
| Terminal Connector | Connector M12, 8-pole, A-coded |
|--------------------|--------------------------------|

#### Mechanical data - Dimensions

|                  |        |
|------------------|--------|
| Height of sensor | 100 mm |
| Length of sensor | 35 mm  |
| Width of sensor  | 85 mm  |

#### Ambient conditions

|                                            |                                                             |
|--------------------------------------------|-------------------------------------------------------------|
| Protection class                           | IP66 to IEC 60529<br>IP67 to IEC 60529<br>IP69 to IEC 60529 |
| Ambient temperature, minimum               | +0 °C                                                       |
| Ambient temperature, maximum               | +60 °C                                                      |
| Storage and transport temperature, minimum | -10 °C                                                      |
| Storage and transport temperature, maximum | +90 °C                                                      |
| Resistance to vibrations to EN 60068-2-6   | 10 ... 150 Hz, amplitude 0.35 mm<br>30 g / 11 ms<br>III     |

#### Ambient conditions - Insulation value

|                                 |        |
|---------------------------------|--------|
| Rated impulse withstand voltage | 0.8 kV |
|---------------------------------|--------|

### Electrical data

Operating voltage, minimum 20.4 VDC

Operating voltage, maximum 26.4 VDC

No-load current 100 mA

Required rated short-circuit  
current to EN 60947-5-1 100 A

Reaction time of actuator,  
maximum 100 ms

Reaction time of input,  
maximum 0.5 ms

Switching frequency,  
maximum 0.5 Hz

Note Cable length and cable section alter the voltage drop depending on the output current

### Electrical data - Solenoid control

-3 V ... 5 V (Low)

15 V ... 30 V (High)

C0

C1

C2

C3

### Electrical data - Fail-safe digital inputs

-3 V ... 5 V (Low)

15 V ... 30 V (High)

Current consumption of the  
safety inputs at 24V 5 mA

C1

C1

C2

C3

### Electrical data - Fail-safe digital outputs

Rated operating current  
(safety outputs) 250 mA

Versions short-circuit proof, p-type

Voltage drop  $U_d$ , maximum 4 V

Current leakage 0.5 mA

Voltage, Utilisation category  
DC12 24 VDC

|                                       |        |
|---------------------------------------|--------|
| Current, Utilisation category<br>DC12 | 0.3 A  |
| Voltage, Utilisation category<br>DC13 | 24 VDC |
| Current, Utilisation category<br>DC13 | 0.3 A  |
|                                       | C2     |
|                                       | C1     |
|                                       | C2     |

### Electrical data - Diagnostic output

|                                       |                             |
|---------------------------------------|-----------------------------|
| Versions                              | short-circuit proof, p-type |
| Voltage drop $U_d$ , maximum          | 4 V                         |
| Voltage, Utilisation category<br>DC12 | 24 VDC                      |
| Current, Utilisation category<br>DC12 | 0.1 A                       |
| Voltage, Utilisation category<br>DC13 | 24 VDC                      |
| Current, Utilisation category<br>DC13 | 0.1 A                       |

### Status indication

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

### 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 serial diagnostic output |
| PIN 6 | X2 Safety input 2            |
| PIN 7 | Y2 Safety output 2           |
| PIN 8 | IN serial diagnostic input   |

### Scope of delivery

|                      |                                       |
|----------------------|---------------------------------------|
| Included in delivery | Actuators must be ordered separately. |
|----------------------|---------------------------------------|

### Accessory

AZ/AZM300-B1

## Notes

|                |                                                                                                                                                                                                                    |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Note (General) | For doors that are flush with the door frame, the optional mounting plate MP-AZ/AZM300-1 can be used.                                                                                                              |
|                | For glass and Makrolon doors, the optional mounting kit MS-AZ/AZM300-B1-1 can be used.                                                                                                                             |
|                | 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. |

## Ordering code

Product type description:

AZM300(1)(2)-ST(3)-(4)-(5)

(1)

**Z** Guard locking monitored

**NB, MBN, BN** Actuator monitored

(2)

**without** Standard coding

**I1** Individual coding

**I2** Individual coding, multiple teaching

(3)

**1P2P** 1 p-type diagnostic output and 2 p-type safety outputs

**SD2P** serial diagnostic output and 2 p-type safety outputs

(4)

**without** Power to unlock

**A** Power to lock

(5)

**without** Manual release

**T** Emergency exit

**N** Emergency release

## Pictures

### Photo/Product/Catalogue



ID: kazm3f26

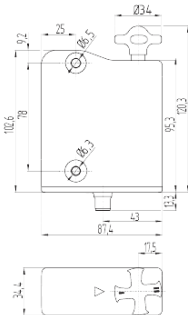
| 59,1 kB | .png | 74.083 x 92.428 mm - 210 x 262

Pixel - 72 dpi

| 905,6 kB | .jpg | 352.425 x 440.619 mm - 999 x 1249

Pixel - 72 dpi

## Dimension/Product/Basic



ID: 5azm3g02

| 5,8 kB | .png | 74.083 x 124.531 mm - 210 x 353

Pixel - 72 dpi

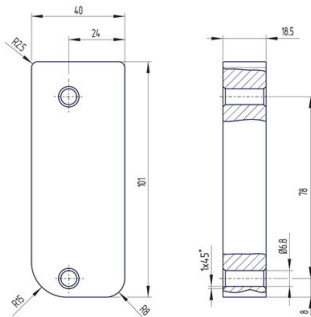
| 10,7 kB | .png | 29.803 x 50.038 mm - 352 x 591

Pixel - 300 dpi

| 190,4 kB | .jpg | 352.778 x 593.372 mm - 1000 x

1682 Pixel - 72 dpi

## Dimension/Other



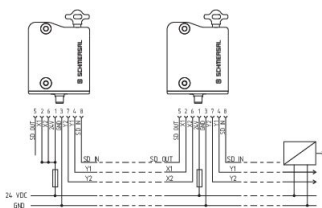
ID: kazm3g01

| 23,7 kB | .cdr |

| 133,3 kB | .jpg | 352.778 x 366.889 mm - 1000 x

1040 Pixel - 72 dpi

## Graphic/Product/Wiring



ID: kazm3l02

| 108,2 kB | .jpg | 352.778 x 219.075 mm - 1000 x 621

Pixel - 72 dpi

| 61,7 kB | .cdr |

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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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