



### AZM300Z-ST-1P2P-A

- Series-wiring
- Power to lock
- Compact design
- Manual release
- Diagnostic output
- Connector M12, 8-pole
- Thermoplastic enclosure
- Guard locking monitored
- 3 different directions of actuation
- 3 LEDs to show operating conditions
- Universal coding with RFID technology
- Suitable for hinged and sliding guards
- Suitable for mounting to profile systems
- RFID-technology for needs-based protection against tampering

## Data

### Ordering data

|                               |                   |
|-------------------------------|-------------------|
|                               | AZM300Z-ST-1P2P-A |
|                               | 103001450         |
| EAN (European Article Number) | 4030661426068     |
| 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 | Universal coding |

|                                     |                                                                   |
|-------------------------------------|-------------------------------------------------------------------|
| Coding level according to ISO 14119 | Low                                                               |
|                                     | RFID                                                              |
| Enclosure material                  | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing |
| Gross weight                        | 550 g                                                             |
| Time to readiness, maximum          | 5,000 ms                                                          |
| Duration of risk, maximum           | 200 ms                                                            |

#### General data - Features

|                                     |     |
|-------------------------------------|-----|
| Power to lock                       | Yes |
| Guard locking monitored             | 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)                |

#### Safety appraisal - Guard locking

|                                              |                          |
|----------------------------------------------|--------------------------|
| Performance level, up to                     | d                        |
| Control category                             | 2                        |
| PFH-value                                    | $2.00 \times 10^{-9} /h$ |
| PFD value                                    | $1.80 \times 10^{-4}$    |
| Safety Integrity Level (SIL), applicable for | 2                        |
| 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 |
|                                 | III    |
|                                 | 3      |

### 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) |
| Current consumption of the magnet control at 24V | 10 mA                |
|                                                  | 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 DC12 | 0.3 A                       |
| Voltage, Utilisation category DC13 | 24 VDC                      |
| Current, Utilisation category DC13 | 0.3 A                       |
|                                    | C2                          |
|                                    | C1                          |
|                                    | C2                          |

#### Electrical data - Diagnostic output

|                                       |                             |
|---------------------------------------|-----------------------------|
| Operating current (diagnostic output) | 50 mA                       |
| Versions                              | short-circuit proof, p-type |
| Voltage drop $U_d$ , maximum          | 4 V                         |
| Voltage, Utilisation category DC12    | 24 VDC                      |
| Current, Utilisation category DC12    | 0.1 A                       |
| Voltage, Utilisation category DC13    | 24 VDC                      |
| Current, Utilisation category DC13    | 0.1 A                       |

#### Status indication

|                                         |                                                                                                      |
|-----------------------------------------|------------------------------------------------------------------------------------------------------|
| Note (LED switching 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 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.

## 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

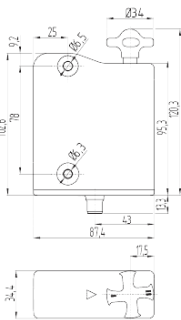


ID: kazm3f26

| 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



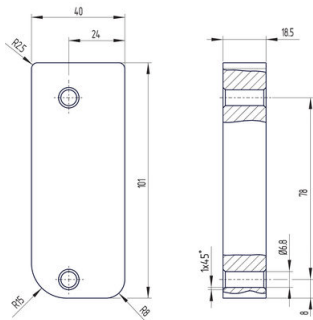
ID: 5azm3g02

| 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

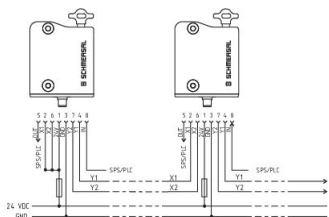


ID: kazm3g01

| 23,7 kB | .cdr |

| 133,3 kB | .jpg | 352.778 x 366.889 mm - 1000 x 1040  
Pixel - 72 dpi

Graphic/Product/Wiring



ID: kazm3l01

| 37,8 kB | .cdr |

| 111,9 kB | .jpg | 352.778 x 231.422 mm - 1000 x 656  
Pixel - 72 dpi

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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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