



## AZM400Z-ST-1P2P-T

- Universal coding with RFID technology
- Connector M12, 8-pole
- Guard locking monitored
- 1 Diagnostic output
- Emergency exit
- Bistable, motor-driven system
- Clamping force 10.000
- Release possible against lateral forces up to 300 N
- PL e / cat. 4 / SIL 3 for interlocking and guard locking function
- Two-channel input signal of the guard locking function
- Operation on P/P- and P/N-switching outputs
- High tolerance to door misalignment

## Data

### Ordering data

|                               |                   |
|-------------------------------|-------------------|
| Product type description      | AZM400Z-ST-1P2P-T |
| Article number (order number) | 103003593         |
| EAN (European Article Number) | 4030661472584     |
| eCl@ss number, Version 9.0    | 27-27-26-03       |
| eCl@ss number, Version 11.0   | 27-27-26-03       |

### Approval - Standards

|              |                                  |
|--------------|----------------------------------|
| Certificates | TÜV<br>cULus<br>EAC<br>FCC<br>IC |
|--------------|----------------------------------|

### General data

|                                     |  |
|-------------------------------------|--|
| Standards                           | IEC 60947-5-1<br>EN ISO 13849-1<br>IEC 61508<br>EN ISO 14119 |
| general information                 | Universal coding   |
| Coding level according to ISO 14119 | Low  |
| Active principle                    | Magnetic field<br>RFID                                       |
| Enclosure material                  | Light alloy die-casting                                      |
| Gross weight                        | 846 g  |
| Time to readiness, maximum          | 1,500 ms   |
| Reaction time, maximum              | 100 ms   |

### General data - Features

|                                     |     |
|-------------------------------------|-----|
| Guard locking monitored             | Yes |
| Emergency exit                      | Yes |
| Short circuit detection             | Yes |
| Short-circuit recognition           | Yes |
| Safety functions                    | Yes |
| Integral System Diagnostics, status | Yes |
| Number of diagnostic signals        | 1   |
| Number of safety contacts           | 2   |

### Safety appraisal

|           |                             |
|-----------|-----------------------------|
| Standards | IEC 61508<br>EN ISO 13849-1 |
|-----------|-----------------------------|

### Safety appraisal - Interlocking

|  |                          |
|--|--------------------------|
| Performance level, up to                                   | e                        |
| Control category   | 4                        |
| PFH-value  | $1.00 \times 10^{-9}$ /h |
| PFD value  | $9.00 \times 10^{-5}$    |
| Safety Integrity Level (SIL), suitable for applications in | 3                        |
| Mission Time   | 20 Year(s)               |

## Safety appraisal - Guard locking

|  |                          |
|--|--------------------------|
| Performance level, up to                                   | e                        |
| Control category   | 4                        |
| PFH-value  | $1.80 \times 10^{-9}$ /h |
| PFD value  | $1.60 \times 10^{-4}$    |
| Safety Integrity Level (SIL), suitable for applications in | 3                        |
| Mission Time   | 20 Year(s)               |

## Mechanical data

|   |  |
|---|--|
| Interlocking principle                                      | bistable   |
| Mechanical life, minimum                                    | 1,000,000 Operations   |
| Note (Mechanical lifetime)                                  | Which have a lateral force $F_{trans} = 100$ N: 100.000 operations |
| Minimum distance devices                                    | 30 mm  |
| Clamping force in accordance with ISO14119 $F_{zh}$         | 10,000 N   |
| Clamping force, maximum $F_{max}$                           | 13,000 N   |
| Lateral force at bolt return, maximal (against locked door) | 300 N  |
| Note (Lateral force at bolt return)                         | Does not apply to emergency exit, Bowden cable and manual release  |
| Tightening torque of the screw                              | 8 Nm   |

## Mechanical data - Connection technique

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

## Mechanical data - Dimensions

|                  |          |
|------------------|----------|
| Length of sensor | 65.3 mm  |
| Width of sensor  | 77.8 mm  |
| Height of sensor | 166.7 mm |

## Ambient conditions

|  |                                      |
|--|--------------------------------------|
| Degree of protection                       | IP66 to EN 60529<br>IP67 to EN 60529 |
| Ambient temperature, minimum               | -20 °C                               |
| Ambient temperature, maximum               | +55 °C                               |
| Storage and transport temperature, minimum | -40 °C                               |
| Storage and transport temperature, maximum | +85 °C                               |
| 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                                  |
| TEMP_AMBIENT_MIN_GEN                       | -20                                  |

### Ambient conditions - Insulation value

|   |        |
|---|--------|
| Rated insulation voltage $U_i$            | 32 VDC |
| Rated impulse withstand voltage $U_{imp}$ | 0.8 kV |
| Overtoltage category                      | III    |
| Degree of pollution to VDE 0100           | 3      |

### Electrical data

|  |        |
|--|--------|
| Operating Current                                      | 100 mA |
| Current consumption, maximum                           | 600 mA |
| Current consumption at 24V, minimum                    | 10 mA  |
| Current consumption at 24V, maximum                    | 15 mA  |
| No-load supply current $I_0$                           | 100 mA |
| Rated operating voltage                                | 24 VDC |
| Rated operating voltage                                | 24 VDC |
| Operating current                                      | 50 mA  |
| Required rated short-circuit current to EN 60947-5-1   | 100 A  |
| Switching frequency, approx.                           | 0.3 Hz |
| Open / close cycle (Motor), minimum                    | 3      |
| Minimal average cycle time (with continuous operation) | 20 s   |

### Electrical data - Control inputs

|   |  |
|---|--|
| Switching thresholds of the control inputs  | -3 V ... 5 V (Low)<br>15 V ... 30 V (High) |
| Allowable discrepancy time (input), maximum | 10 s                                       |
| Classification ZVEI CB24I, Sink             | C0   |
| Classification ZVEI CB24I, Source           | C1<br>C2<br>C3                             |

### Electrical data - Fail-safe digital inputs

|                                 |    |
|---------------------------------|----|
| Classification ZVEI CB24I, Sink | C1 |
|---------------------------------|----|

### Electrical data - Fail-safe digital outputs

|  |          |
|--|----------|
| Rated operating current (safety outputs) | 250 mA   |
| Voltage drop $U_d$ , maximum             | 2 V      |
| Current leakage $I_r$                    | 1.5 mA   |
| Voltage, Utilisation category DC12       | 24 VDC   |
| Current, Utilisation category DC12       | 0.25 A   |
| Voltage, Utilisation category DC13       | 24 VDC   |
| Current, Utilisation category DC13       | 0.25 A   |
| Classification ZVEI CB24I, Source        | C2       |
| Classification ZVEI CB24I, Sink          | C1<br>C2 |

### Electrical data - Diagnostic output

|                                    |                             |
|------------------------------------|-----------------------------|
| Versions                           | short-circuit proof, p-type |
| Voltage drop $U_d$ , maximum       | 2 V                         |
| Voltage, Utilisation category DC12 | 24 VDC                      |
| Current, Utilisation category DC12 | 0.05 A                      |
| 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

## Pin assignment

|       |                       |
|-------|-----------------------|
| PIN 1 | A1 Supply voltage UB  |
| PIN 2 | E1 Control input 1    |
| PIN 3 | A2 GND                |
| PIN 4 | Y1 Safety output 1    |
| PIN 5 | OUT Diagnostic output |
| PIN 6 | E3 Control input 3    |
| PIN 7 | Y2 Safety output 2    |
| PIN 8 | E2 Control input 2    |

## Scope of delivery

|                                     |                                       |
|-------------------------------------|---------------------------------------|
| Included in delivery                | Actuators must be ordered separately. |
| Delivery scope of Mounting material | 2 x M6 (10.9)                         |

## Accessory

|                           |           |
|---------------------------|-----------|
| Recommendation (actuator) | AZM400-B1 |
|---------------------------|-----------|

## Ordering code

Product type description:  
AZM400Z(1)(2)(3)(4)(5)

|                |   |
|----------------|---|
| (1)            |   |
| <b>ST</b>      | 1 Connector plug M12, 8-pin   |
| <b>ST2</b>     | 2 Connector plug M12, 8-pin / 5-pin                                   |
| (2)            |   |
| <b>without</b> | Standard coding   |
| <b>I1</b>      | Individual coding   |
| <b>I2</b>      | Individual coding, multiple teaching                                  |
| (3)            |   |
| <b>1P2P</b>    | 1 serial diagnostic output and 2 p-type safety outputs (only for ST)  |
| <b>2P2P</b>    | 2 serial diagnostic output and 2 p-type safety outputs (only for ST2) |
| (4)            |   |
| <b>without</b> | Manual release  |
| <b>T</b>       | Emergency exit  |
| <b>BOW</b>     | With securing holes for Bowden cable assembly                         |
| (5)            |   |
| <b>without</b> | without electronic manual release (Only for ST)                       |
| <b>E</b>       | with electronic manual release (Only for ST2)                         |

## Pictures

### Product picture (catalogue individual photo)

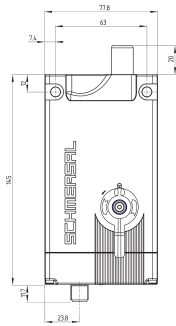


ID: kazm4f37

| 527.4 kB | .jpg | 352.778 x 235.303 mm - 1000 x 667 px - 72 dpi

| 31.2 kB | .png | 74.083 x 49.389 mm - 210 x 140 px - 72 dpi

## Dimensional drawing basic component



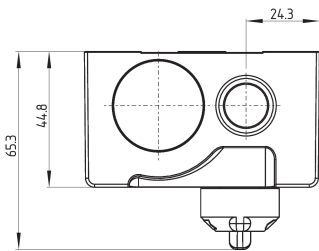
ID: kazm4g19

| 236.7 kB | .ai | 210 x 297 mm - 595 x 841 px - 72 dpi

| 14.9 kB | .png | 74.083 x 137.583 mm - 210 x 390 px - 72 dpi

| 219.2 kB | .jpg | 352.778 x 655.108 mm - 1000 x 1857 px - 72 dpi

## Dimensional drawing basic component



ID: kazm4g23

| 113.5 kB | .ai | 210 x 297 mm - 595 x 841 px - 72 dpi

| 5.0 kB | .png | 74.083 x 57.15 mm - 210 x 162 px - 72 dpi

| 120.1 kB | .jpg | 352.778 x 271.639 mm - 1000 x 770 px - 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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