

## Datasheet - AZM 170-11ZRKA-ST 24 VAC/DC

Solenoid interlock / AZM 170



Preferred typ



- Thermoplastic enclosure
- Double-insulated
- Compact design
- 90 mm x 84 mm x 30 mm
- Interlock with protection against incorrect locking.
- Long life
- High holding force
- Connector M12, 4-pole
- Manual release

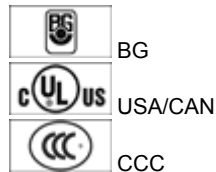
(Minor differences between the printed image and the original product may exist!)

### Ordering details

|                          |                             |
|--------------------------|-----------------------------|
| Product type description | AZM 170-11ZRKA-ST 24 VAC/DC |
| Article number           | 101141455                   |
| EAN Code                 | 4030661122014               |
| eCl@ss                   | 27-27-26-03                 |

### Approval

Approval




### Classification

|                                   |  |
|-----------------------------------|--|
| Standards                         | EN ISO 13849-1   |
| B10d Normally-closed contact (NC) | 2.000.000  |
| Mission time                      | 20 Years   |
| notice                            | $MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$ |

### Global Properties

|                 |         |
|-----------------|---------|
| Permanent light | AZM 170 |
|-----------------|---------|

|  |   |
|--|---|
| Standards  | EN 60947-5-1, BG-GS-ET-19   |
| Compliance with the Directives (Y/N)  | Yes   |
| Number of actuating directions   | 2   |
| Active principle   | electromechanical   |
| Duty cycle ED  | Magnet 100 %  |
| Materials  |   |
| - Material of the housings   | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing |
| - Material of the contacts   | Silver  |
| Housing coating  | None  |
| Weight   | 285   |

## Mechanical data

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|                                  |                        |
|----------------------------------|------------------------|
| Design of electrical connection  | Connector M12          |
| Mechanical life                  | > 1.000.000 operations |
| Emergency unlocking device (Y/N) | No                     |
| - bottom                         |                        |
| Manual release (Y/N)             | Yes                    |
| Emergency release (Y/N)          | No                     |
| Latching force                   | 30                     |
| Positive break force             | 8.5                    |
| positive break travel            | 11 mm                  |
| Clamping force F                 | 1000 N                 |
| Max. Actuating speed             | 2 m/s                  |

## Ambient conditions

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|                                  |                      |
|----------------------------------|----------------------|
| Ambient temperature              |                      |
| - Min. environmental temperature | -25 °C               |
| - Max. environmental temperature | +60 °C               |
| Protection class                 | IP67 to IEC/EN 60529 |

## Electrical data

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|   |  |
|---|--|
| Design of control element                 | Normally open contact (NO), Opener (NC)  |
| notice                                    | change-over contact with double break, type Zb or 2 NC contacts, with galvanically separated contact bridges |
| Switching principle                       | Creep circuit element  |
| Number of auxiliary contacts              | 1  |
| Number of safety contacts                 | 1  |
| Power to unlock                           | No   |
| Power to lock                             | Yes  |
| Rated control voltage $U_s$               | 24 VAC/DC  |
| Power consumption                         | max. 10 W  |
| Rated impulse withstand voltage $U_{imp}$ | 4 kV   |
| Rated insulation voltage $U_i$            | 250 V  |
| Thermal test current $I_{the}$            | 10 A   |
| Utilisation category                      | AC-15: 230 V / 4 A, DC-13: 24 V / 4 A  |
| Max. fuse rating                          | 6 A gG D-fuse  |

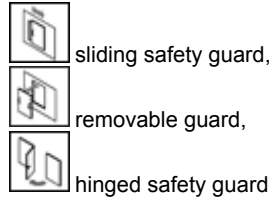
## ATEX

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

## Miscellaneous data

Applications



## Dimensions

Dimensions of the sensor

|                    |       |
|--------------------|-------|
| - Width of sensor  | 90    |
| - Height of sensor | 75.5  |
| - Length of sensor | 30 mm |

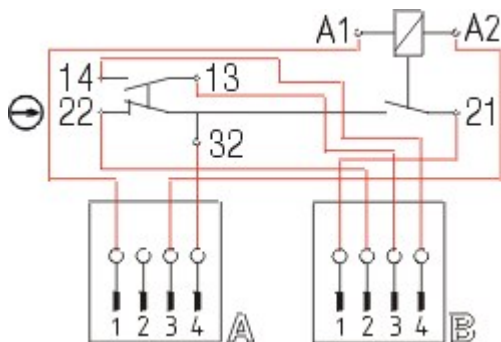
## notice

Individual coding available on request

Manual release

- For manual release using M5 triangular key, available as accessory

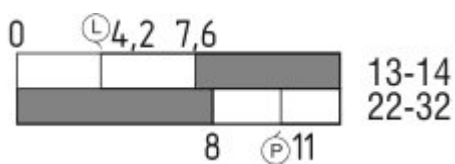
## Diagram



Note Diagram

- ⊖ positive break NC contact
- ⊕ active
- ⊖ no active
- Normally-open contact
- ⊖ Normally-closed contact

## Switch travel diagram



Notes Switch travel diagram

- Contact closed
- Contact open
- ▨ Setting range
- ⊖ Break point

- P** Positive opening sequence/- angle
- VS** adjustable range of NO contact
- VÖ** adjustable range of NC contact
- N** after travel

## Ordering suffix

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The applicable ordering suffix is added at the end of the part number of the safety switch.

Order example: AZM 170-11ZRKA-ST 24 VAC/DC-**1637**

|                    |  |
|--------------------|--|
| ....- <b>1637</b>  | 0,3 µm gold-plated contacts                    |
| ... <b>ST-2431</b> | connector M12 , Individual solenoid monitoring |

## Ordering code

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AZM 170(1)-(2)Z(3)K(4)-(5)-(6)-(7)

|   |  |
|---|--|
| <b>(1)</b><br><i>without</i><br><b>SK</b>                       | IDC method of termination<br>Screw connection  |
| <b>(2)</b><br><b>11</b><br><b>02</b><br><b>12/0.0</b>           | 1 Normally open contact (NO) / 1 Opener (NC)<br>2 Opener (NC)<br>1 Normally open contact (NO), 2 Opener (NC) / -   |
| <b>(3)</b><br><i>without</i><br><b>R</b><br><b>I</b>            | Latching force 5 N<br>Latching force 30 N<br>Individual coding   |
| <b>(4)</b><br><i>without</i><br><b>A</b>                        | Power to unlock<br>Power to lock   |
| <b>(5)</b><br><i>without</i><br><b>ST</b><br><b>ST-2431</b>     | cable gland<br>Connector M12 x 1<br>Connector M12 x 1, Individual solenoid monitoring  |
| <b>(6)</b><br><b>24VAC/DC</b><br><b>110VAC</b><br><b>230VAC</b> | U <sub>s</sub> 24 VAC/DC<br>U <sub>s</sub> 110 VAC<br>U <sub>s</sub> 230 VAC   |
| <b>(7)</b><br><i>without</i><br><b>2197</b><br><b>1637</b>      | Manual release<br>Manual release from side (Power to unlock)<br>gold-plated contacts   |
|   | <b>AZM 170ST and AZM 170SK</b>   |
|   | <b>AZM 170ST-(1)Z(2)K(3)-(4)-(5)-024</b>   |
|   | <b>AZM 170SK-(1)Z(2)K(3)-(4)-(5)-024</b>   |
| <b>(1)</b><br><b>11/11</b><br><b>11/02</b>                      | 1 Normally open contact (NO), 1 Opener (NC) / 1 Normally open contact (NO), 1 Opener (NC)<br>1 Normally open contact (NO), 1 Opener (NC) / 2 Opener (NC) |

|                |   |
|----------------|---|
| <b>12/00</b>   | 1 Normally open contact (NO), 2 Opener (NC) / -   |
| <b>12/11</b>   | 1 Normally open contact (NO), 2 Opener (NC) / 1 Normally open contact (NO), 1 Opener (NC) |
| <b>12/02</b>   | 1 Normally open contact (NO), 2 Opener (NC) / 2 Opener (NC)                               |
| <b>02/01</b>   | 2 Opener (NC), - / 1 Opener (NC), -   |
| <b>02/10</b>   | 2 Opener (NC), - / 1 Normally open contact (NO), -  |
| <b>(2)</b>     |   |
| <i>without</i> | Latching force 5 N  |
| <b>R</b>       | Latching force 30 N   |
| <b>(3)</b>     |   |
| <i>without</i> | Power to unlock   |
| <b>A</b>       | Power to lock   |
| <b>(4)</b>     |   |
| <b>1637</b>    | gold-plated contacts  |
| <b>(5)</b>     |   |
| <b>2197</b>    | Manual release for Power to unlock  |

## Documents

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**Operating instructions and Declaration of conformity** (fr) 701 kB, 15.02.2018

Code: mrl\_azm170\_fr

**Operating instructions and Declaration of conformity** (de) 668 kB, 11.01.2018

Code: mrl\_azm170\_de

**Operating instructions and Declaration of conformity** (it) 697 kB, 16.01.2018

Code: mrl\_azm170\_it

**Operating instructions and Declaration of conformity** (cn) 655 kB, 08.05.2017

Code: mrl\_azm170\_cn

**Operating instructions and Declaration of conformity** (nl) 702 kB, 12.07.2018

Code: mrl\_azm170\_nl

**Operating instructions and Declaration of conformity** (en) 700 kB, 11.01.2018

Code: mrl\_azm170\_en

**Operating instructions and Declaration of conformity** (jp) 843 kB, 23.08.2016

Code: mrl\_azm170\_jp

**Operating instructions and Declaration of conformity** (pl) 736 kB, 14.06.2018

Code: mrl\_azm170\_pl

**Operating instructions and Declaration of conformity** (da) 582 kB, 07.08.2012

Code: mrl\_azm170\_da

**Operating instructions and Declaration of conformity** (es) 702 kB, 17.01.2018

Code: mrl\_azm170\_es

**BG-test certificate** (en) 260 kB, 09.12.2015

Code: z\_m17p02

**BG-test certificate** (de) 257 kB, 09.12.2015

Code: z\_m17p01

**CCC certification** (en) 5 MB, 26.10.2018

Code: q\_371p02

**CCC certification** (cn) 5 MB, 26.10.2018

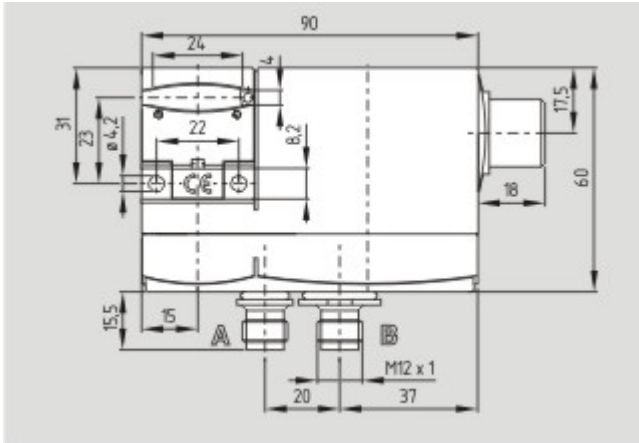
Code: q\_371p03

**EAC certification** (ru) 809 kB, 05.10.2015

Code: q\_6040p17\_ru

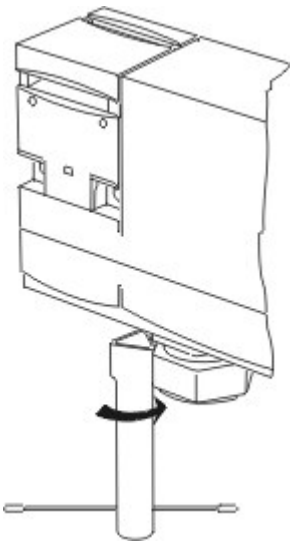
## Images

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Dimensional drawing (basic component)

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Detail photo

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## System components

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### Actuator



**101122893 - AZ 17/170-B1**

- Particularly suitable for sliding doors
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**101137406 - AZ 17/170-B1-2245**

- Particularly suitable for sliding doors
- Damps vibration on guard device



**101122895 - AZ 17/170-B5**

- Particularly suitable for sliding doors



**101139788 - AZ 17/170-B11**

- Particularly suitable for sliding doors



**101139789 - AZ 17/170-B15**

- Particularly suitable for sliding doors



**101123391 - AZM 170-B6**

- Particularly suitable for hinged guards
- For very small actuating radii
- The direction of actuation can be selected by applicable insertion of the insert

**Accessories**



**101208493 - AZM 170-B CENTERING GUIDE**

- for AZ 17 and AZM 170



**101100887 - TRIANGULAR KEY TK-M5**

- For manual release using M5 triangular key, available as accessory
- For maintenance, installation, etc.

**Connector**

**A-K4M12**

- Pre-wired cable
- 4-pole



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**S-K4M12**

- Connector without cable
- 4-pole



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**A-K4M12**

- Pre-wired cable
- 4-pole



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**S-K4M12**

- Connector without cable
- 4-pole



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

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