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# Datasheet - AZM 170-02ZRKA 230 VAC

Solenoid interlock / AZM 170



Thermoplastic enclosure
Double-insulated

- Compact design
- 90 mm x 84 mm x 30 mm
- 1 Cable entry M 20 x 1.5
- Interlock with protection against incorrect locking.
- Long life
  - High holding force
  - IDC method of termination
  - Manual release

(Minor differences between the printed image and the original product may exist!)  $\label{eq:printed}$ 

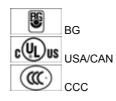
### **Ordering details**

Product type description Article number EAN Code eCl@ss

Approval

Approval

AZM 170-02ZRKA 230 VAC 101136316 4030661056210 27-27-26-03



Classification

Standards B10d Normally-closed contact (NC) Mission time notice EN ISO 13849-1 2.000.000 20 Years MTTF<sub>d</sub>= $\frac{B_{10d}}{0,1 \times n_{op}}$ 

 $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{oycle}}$ 

| Permanent light                         | AZM 170   |
|---|---|
| Standards                               | EN 60947-5-1, BG-GS-ET-19   |
| Compliance with the Directives (Y/N) CE | 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                                  | 278   |
|   |   |

### Mechanical data

| Design of electrical connection  | IDC method of termination |
|----------------------------------|---------------------------|
| Cable section                    |                           |
| - Min. Cable section             | 1 x 0,75                  |
| - Max. Cable section             | 1 x 1.0, flexible         |
| 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             | 17                        |
| positive break travel            | 11 mm                     |
| Clamping force F                 | 1000 N                    |
| Max. Actuating speed             | 2 m/s                     |
|                                  |                           |

### **Ambient conditions**

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

## **Electrical data**

| Design of control element            | 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         | 0  |
| Number of safety contacts            | 2  |
| Power to unlock                      | No   |
| Power to lock                        | Yes  |
| Rated control voltage Us             | 230 VAC  |
| Power consumption                    | max. 10 W  |
| Rated impulse withstand voltage Uimp | 4 kV   |
| Rated insulation voltage Ui          | 250 V  |
| Thermal test current Ithe            | 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

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

### **Miscellaneous data**



| Dimensions of the sensor |       |
|--------------------------|-------|
| - Width of sensor        | 90    |
| - Height of sensor       | 84    |
| - Length of sensor       | 30 mm |

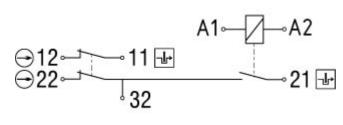
### notice

This type termination (IDC) method enables simple connetion of flexible conductors without the need for the use of conductor ferrules Individual coding available on request

Manual release

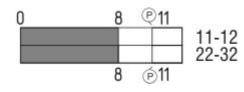
• For manual release using M5 triangular key, available as accessory

### 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

VS adjustable range of NO contact VÖ adjustable range of NC contact N after travel

### **Ordering suffix**

The applicable ordering suffix is added at the end of the part number of the safety switch. Order example: AZM 170-02ZRKA 230 VAC**-1637** 

| 1637    | 0,3 µm gold-plated contacts                    |
|---------|--|
| ST-2431 | connector M12 , Individual solenoid monitoring |

Ordering code

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

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

AZM 170ST-(1)Z(2)K(3)-(4)-(5)-024 AZM 170SK-(1)Z(2)K(3)-(4)-(5)-024

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

#### **Documents**

**Operating instructions and Declaration of conformity** (fr) 701 kB, 15.02.2018 Code: mrl\_azm170\_fr

**Operating instructions and Declaration of conformity** (de) 672 kB, 20.05.2019 Code: mrl\_azm170\_de

**Operating instructions and Declaration of conformity** (it) 718 kB, 06.06.2019 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) 702 kB, 20.05.2019 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) 719 kB, 31.05.2019 Code: mrl\_azm170\_es Code: z\_m17p02

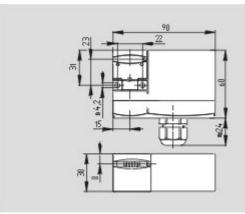
**BG-test certificate** (de) 257 kB, 09.12.2015 Code: z\_m17p01

**CCC certification** (en) 5 MB, 26.10.2018 Code: q\_371p02

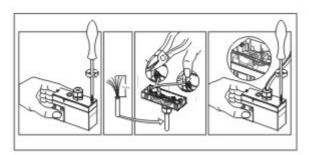
**CCC certification** (cn) 5 MB, 26.10.2018 Code: q\_371p03

EAC certification (ru) 809 kB, 05.10.2015 Code: q\_6040p17\_ru

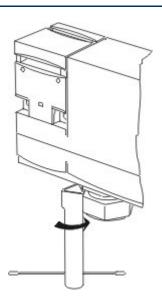
### Images



Dimensional drawing (basic component)



Assembly example



### System components

| Actuator    | 101122893 - AZ 17/170-B1  • Particularly suitable for sliding doors  |
|-------------|--|
| 00          | <ul> <li>101137406 - AZ 17/170-B1-2245</li> <li>Particularly suitable for sliding doors</li> <li>Damps vibration on guard device</li> </ul>  |
|             | 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   |
|             | <ul> <li>101123391 - AZM 170-B6</li> <li>Particularly suitable for hinged guards</li> <li>For very smal actuating radii</li> <li>The direction of actuation can be selected by applicable insertion of the insert</li> </ul> |
| Accessories | <b>101208493 - AZM 170-B CENTERING GUIDE</b><br>• 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



#### S-K4M12

- Connector without cable
- 4-pole

K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal The data and values have been checked throroughly. Technical modifications and errors excepted. Generiert am 25.07.2019 - 22:36:10h Kasbase 3.3.0.F.64I