14.08.2015

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SCHMERSAL

Datasheet - AZM 170-02ZRKA 24 VAC/DC

Solenoid interlock / AZM 170

X Preferred typ





- 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!)

Ordering details

| Product type description | |
|--------------------------|--|
| Article number | |
| EAN code | |
| eCl@ss | |

AZM 170-02ZRKA 24 VAC/DC 101141020 4030661120294 27-27-26-03



Classification

Approval

Approval

Standards B10d Opener (NC) Mission time notice

EN ISO 13849-1 2.000.000 20 Years $MTTF_{d} = \frac{D_{100}}{0.1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{1000 \text{ s/h}}$

t _{ovele}

Global Properties

| Product name | AZM 170 |
|---|---|
| Standards | EN 60947-5-1, BG-GS-ET-19 |
| Compliance with the Directives (Y/N) CE | Yes |
| Number of actuating directions | 2 piece |
| Active principle | electromechanical |
| Duty cycle | Magnet 100 % |
| Materials | |
| - Material of the housings | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing |
| - Material of the contacts | Silver |
| Housing coating | None |
| Weight | 278 g |
| | |

Mechanical data

| Design of electrical connection | IDC method of termination | |
|----------------------------------|---------------------------|--|
| Cable section | | |
| - Min. Cable section | 1 x 0,75 mm² | |
| - Max. Cable section | 1 x 1.0 mm², flexible | |
| Mechanical life | > 1.000.000 operations | |
| Emergency unlocking device (Y/N) | No | |
| Manual release (Y/N) | Yes | |
| - bottom | | |
| Emergency release (Y/N) | No | |
| Latching force | 30 N | |
| Positive break force | 17 N | |
| positive break travel | 11 mm | |
| Clamping force Fmax | 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 |

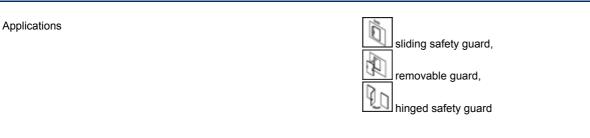
Electrical data

| 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 piece |
| Number of safety contacts | 2 piece |
| Power to unlock | No |
| Power to lock | Yes |
| Rated control voltage Us | 24 VAC/DC |
| 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 |
| | |

ATEX

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

Miscellaneous data



Dimensions

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

notice

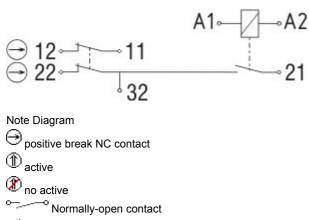
This type termination (IDC) method enables simple connetion of flexible conductors without the need for the use of conductor ferrules

Individual coding available on request

Manual release

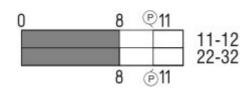
· For manual release using M5 triangular key, available as accessory

Diagram



•-^{±---}• Normally-closed contact

Switch travel diagram



Notes Switch travel diagram

Contact closed

| Contact open |
|--------------------------|
| Setting range |
| L Break point |
| - |
| Positive opening sequ |
| VS adjustable range of N |
| |

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 24 VAC/DC**-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 |
| I | 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) 670 kB, 01.07.2010 Code: mrl_azm170_fr

Operating instructions and Declaration of conformity (de) 923 kB, 24.02.2011 Code: mrl_azm170_de

Operating instructions and Declaration of conformity (it) 645 kB, 09.04.2010 Code: mrl_azm170_it

Operating instructions and Declaration of conformity (nl) 720 kB, 23.09.2010 Code: mrl_azm170_nl

Operating instructions and Declaration of conformity (en) 746 kB, 12.03.2010 Code: mrl_azm170_en

Operating instructions and Declaration of conformity (jp) 709 kB, 14.04.2011 Code: mrl_azm170_jp

Operating instructions and Declaration of conformity (pl) 590 kB, 11.02.2015 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) 665 kB, 25.03.2010 Code: mrl_azm170_es

BG-test certificate (en) 236 kB, 10.12.2013 Code: z_m17p02

BG-test certificate (de) 238 kB, 10.12.2013

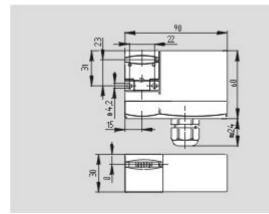
Code: z_m17p01

CCC certification (en) 596 kB, 23.06.2014 Code: q_371p02

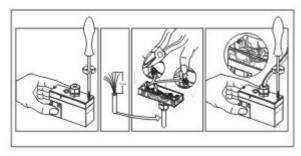
CCC certification (cn) 607 kB, 23.06.2014 Code: q_371p03

Gost certification (ru) 2 MB, 07.07.2011 Code: q_az1p01

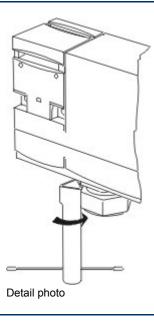
Images



Dimensional drawing (basic component)



Assembly example



| Actuator | 101122893 - AZ 17/170-B1 • Particularly suitable for sliding doors |
|-------------|--|
| | 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 smal 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 |



• 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 14.08.2015 - 23:39:32h Kasbase 3.1.12.F.64I