13.02.2019

14:45:35h

# Datasheet - AZM 170-02ZRIA-ST-B6L 24 VAC/DC

Solenoid interlock / AZM 170I / AZM 170i-B6L





(Minor differences between the printed image and the original product may exist!)  $% \left( \frac{\partial f_{i}}{\partial t_{i}} \right) = \int_{t_{i}}^{t_{i}} \left( \frac{\partial f_{i}}{\partial t_{i}} \right) \left( \frac{\partial f_{i}}{\partial$ 

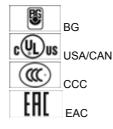
#### **Ordering details**

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

#### Approval

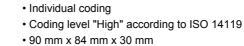
Approval

AZM 170-02ZRIA-ST-B6L 24 VAC/DC 101144375 4030661133164 27-27-26-03



### Classification

Standards B10d Normally-closed contact (NC) Mission time notice EN ISO 13849-1 2.000.000 20 Years



Compact design

Double-insulated

- Interlock with protection against incorrect locking.
- Long life
  - High holding force
  - · left-hand model
  - $\bullet$  For very smal actuating radii in line with or at 90° to the plane of the actuator
  - connector M12, 4-pole
  - A- and B-coding of the connectors

 $MTTF_{d} = \frac{B_{10d}}{0.1 \times n_{op}}$  $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{oycle}}$ 

# **Global Properties**

| Permanent light  | AZM 170I   |
|--|--|
| 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  |
| - Individual coding                                      |  |
| - Coding level "High" according to ISO 14119             |  |
| Duty cycle ED  | Magnet 100 %   |
| Materials  |  |
|  |  |
| - Material of the housings                               | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing                    |
| - Material of the housings<br>- Material of the actuator | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing<br>Stainless steel |
| u u u u u u u u u u u u u u u u u u u                    |  |
| - Material of the actuator                               | Stainless steel  |
| - Material of the actuator<br>- Material of the contacts | Stainless steel<br>Silver  |

# Mechanical data

| Design of electrical connection  | Connector M12          |
|----------------------------------|------------------------|
| Mechanical life                  | > 1.000.000 operations |
| Emergency unlocking device (Y/N) | No                     |
| Manual release (Y/N)             | No                     |
| 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                  |
| Minimum actuating radius         | 50 mm                  |
|                                  |                        |

# **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)           |
|--------------------------------------|-----------------------|
| 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             | 24 VAC/DC             |
| Power consumption                    | max. 10 W             |
| Power consumption                    | max. 10 W             |
| Rated impulse withstand voltage Uimp | 4 kV                  |

Rated insulation voltage Ui Thermal test current Ithe Utilisation category Max. fuse rating

#### ATEX

Explosion protection categories for gases Explosion protected category for dusts

#### **Miscellaneous data**

#### Applications

sliding safety guard,

📖 hinged safety guard

#### Dimensions

| Dimensions of the sensor |       |
|--------------------------|-------|
| - Width of sensor        | 108   |
| - Height of sensor       | 75.5  |
| - Length of sensor       | 30 mm |

# notice

Actuating radius adjustable, minimum 50 mm, using an hexagonal key wrench 2 mm A/F () a

#### The actuator is not available separately.

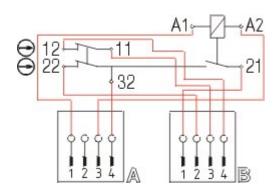
The axis of the hinge should be 11 mm above the top edge of the safety switch and in the same plane

#### **Included in delivery**

Included in delivery

- Individually coded actuator
- tamperproof screws
- Slot sealing plugs

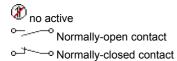
#### Diagram



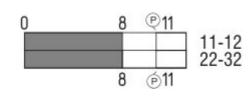
Note Diagram → positive break NC contact ① active 250 V 10 A AC-15: 230 V / 4 A 6 A gG D-fuse

None

None



#### Switch travel diagram



Notes Switch travel diagram

Contact closed Contact open Setting range Break point Positive opening sequence/- angle 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 170-02ZRIA-ST-B6L 24 VAC/DC**-1637** 

...-1637

0,3 µm gold-plated contacts

#### **Ordering code**

#### AZM 170(1)-(2)Z(3)I(4)-(5)-(6)-(7) (8)

| (1)     |  |
|---------|--|
| without | IDC method of termination                    |
| SK      | Screw connection                             |
| (2)     |  |
| 11      | 1 Normally open contact (NO) / 1 Opener (NC) |
| 02      | 2 Opener (NC)                                |
| (3)     |  |
| without | Latching force 5 N                           |
| R       | Latching force 30 N                          |
| 1       | Individual coding                            |
| (4)     |  |
| without | Power to unlock                              |
| Α       | Power to lock                                |
| (5)     |  |
| without | cable gland                                  |
| ST      | Connector M12 x 1                            |
| (6)     |  |
| B1      | with Actuator B1                             |
| B5      | with Actuator B5                             |
| B6L     | with Actuator B6L                            |
|         |  |

| B6R      | with Actuator B6R   |
|----------|---|
| (7)      |   |
| without  | Manual release  |
| 2197     | Manual release from side (Power to unlock)  |
| 1637     | gold-plated contacts  |
| (8)      |   |
| 24VAC/DC | Us 24 VAC/DC  |
| 110VAC   | Us 110 VAC  |
| 230VAC   | Us 230 VAC  |
|          | AZM 170ST and AZM 170SK   |
|          | AZM 170ST-(1)Z(2)I(3)-(4)-(5)-(6) 24 VAC/DC   |
|          | AZM 170SK-(1)Z(2)I(3)-(4)-(5)-(6) 24 VAC/DC   |
| (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)      |   |
| B1       | with Actuator B1  |
| B5       | with Actuator B5  |
| B6L      | with Actuator B6L   |
| B6R      | with Actuator B6R   |
| (5)      |   |
| 1637     | gold-plated contacts  |
| (6)      |   |
| 2197     | Manual release for Power to unlock  |
|          |   |

#### Documents

**Operating instructions and Declaration of conformity** (fr) 886 kB, 18.11.2016 Code: mrl\_azm170i\_fr

**Operating instructions and Declaration of conformity** (it) 863 kB, 21.11.2016 Code: mrl\_azm170i\_it

**Operating instructions and Declaration of conformity** (es) 881 kB, 21.10.2016 Code: mrl\_azm170i\_es

**Operating instructions and Declaration of conformity** (nl) 865 kB, 18.11.2016 Code: mrl\_azm170i\_nl **Operating instructions and Declaration of conformity** (da) 867 kB, 17.11.2016 Code: mrl\_azm170i\_da

**Operating instructions and Declaration of conformity** (de) 941 kB, 11.10.2016 Code: mrl\_azm170i\_de

**Operating instructions and Declaration of conformity** (pt) 870 kB, 21.11.2016 Code: mrl\_azm170i\_pt

**Operating instructions and Declaration of conformity** (pl) 906 kB, 21.11.2016 Code: mrl\_azm170i\_pl

**Operating instructions and Declaration of conformity** (jp) 1 MB, 20.04.2016 Code: mrl\_azm170i\_jp

**Operating instructions and Declaration of conformity** (en) 957 kB, 11.10.2016 Code: mrl\_azm170i\_en

BG-test certificate (en) 260 kB, 09.12.2015 Code: z\_m17p02

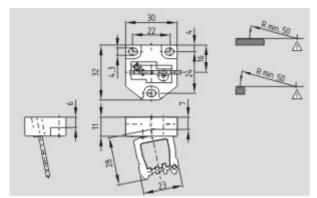
BG-test certificate (de) 257 kB, 09.12.2015 Code: z\_m17p01

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

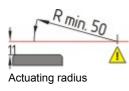
CCC certification (cn) 5 MB, 26.10.2018 Code: q\_371p03

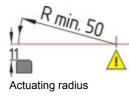
EAC certification (ru) 809 kB, 05.10.2015 Code: q\_6040p17\_ru

#### Images



Dimensional drawing (miscellaneous)





# System components

# 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 S SCHMERSAL S-K4M12 Connector without cable 4-pole S SCHMERSAL

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 13.02.2019 - 14:45:36h Kasbase 3.3.0.F.64I