

## Datasheet - AZM 170-02ZRK 24 VAC/DC

Solenoid interlock / AZM 170

☒ 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

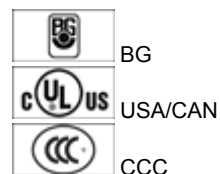
(Minor differences between the printed image and the original product may exist!)

### Ordering details

Product type description	AZM 170-02ZRK 24 VAC/DC
Article number	101140795
EAN code	4030661119830
eCl@ss	27-27-26-03

### Approval


Approval



### Classification

Standards	EN ISO 13849-1
B10d Opener (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

Product name	AZM 170
Standards	EN 60947-5-1, BG-GS-ET-19
Compliance with the Directives (Y/N) 	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	288 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 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 piece
Number of safety contacts	2 piece
Power to unlock	Yes
Power to lock	No
Rated control voltage U <sub>s</sub>	24 VAC/DC
Power consumption	max. 10 W
Rated impulse withstand voltage U <sub>imp</sub>	4 kV
Rated insulation voltage U <sub>i</sub>	250 V
Thermal test current I <sub>the</sub>	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

Applications	<div> sliding safety guard,  removable guard,  hinged safety guard </div>
--------------	--

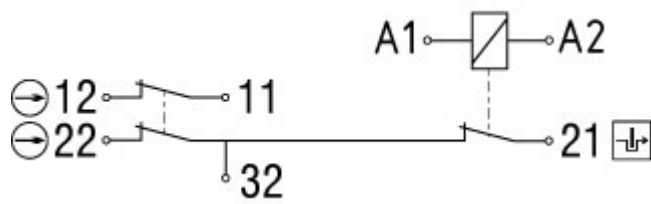
Dimensions

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


notice


<p>This type termination (IDC) method enables simple connetion of flexible conductors without the need for the use of conductor ferrules</p> <p>Individual coding available on request</p> <p>Manual release</p> <ul style="list-style-type: none"> <li>For manual release using M5 triangular key, available as accessory</li> </ul>
---


Diagram





Note Diagram

 positive break NC contact

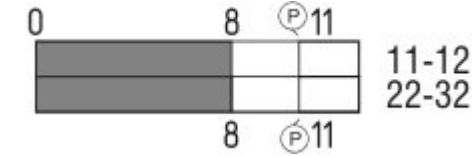
 active

 no active


 Normally-open contact

 Normally-closed contact

Switch travel diagram



Notes Switch travel diagram

 Contact closed

- ☐ Contact open
- ☒ Setting range
- ☒ Break point
- ☒ Positive opening sequence/- angle
- VS** adjustable range of NO contact
- VÖ** adjustable range of NC contact
- N** after travel

### Ordering suffix

<p>The applicable ordering suffix is added at the end of the part number of the safety switch.</p> <p>Order example: AZM 170-02ZRK 24 VAC/DC-<b>1637</b></p>	
<p>...-<b>1637</b></p>	<p>0,3 µm gold-plated contacts</p>
<p>...<b>ST-2431</b></p>	<p>connector M12 , Individual solenoid monitoring</p>

### Ordering code

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

<b>(1)</b>	
<b>11/11</b>	1 Normally open contact (NO), 1 Opener (NC) / 1 Normally open contact (NO), 1 Opener (NC)
<b>11/02</b>	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

---

**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) 260 kB, 09.12.2015

Code: z\_m17p02

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

Code: z\_m17p01

**CCC certification** (en) 596 kB, 23.06.2014

Code: q\_371p02

**CCC certification** (cn) 607 kB, 23.06.2014

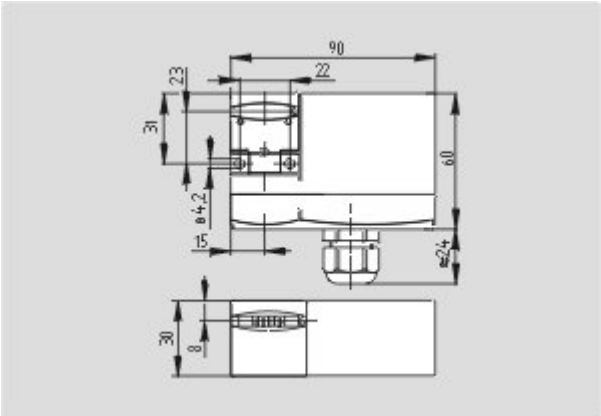
Code: q\_371p03

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

Code: q\_6040p17\_ru

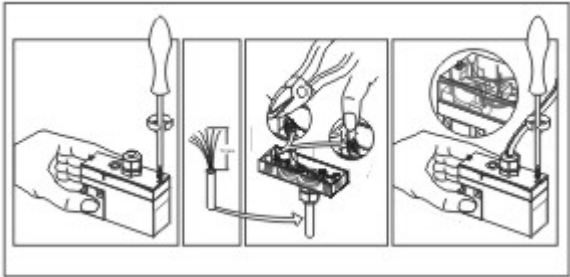
Images

---



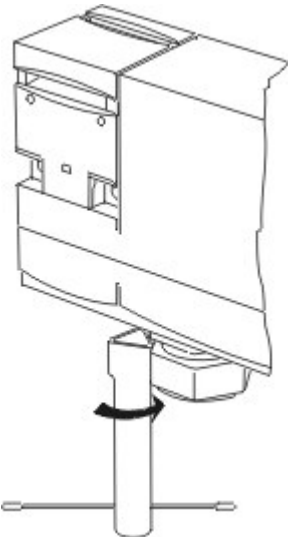
Dimensional drawing (basic component)

---



Assembly example

---



Detail photo

---

System components

---

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 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



- 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 thoroughly. Technical modifications and errors excepted.

Generiert am 02.02.2016 - 00:26:59h Kasbase 3.2.1.F.64l