


## Datasheet - AZM 170-11ZRK-ST-2197 110 VAC

Solenoid interlock / AZM 170



- 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
- Manual release from side
- Connector M12, 4-pole

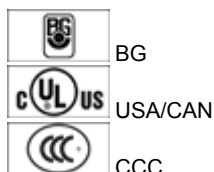
(Minor differences between the printed image and the original product may exist!)

### Ordering details

Product type description	AZM 170-11ZRK-ST-2197 110 VAC
Article number	101141423
EAN code	4030661121895
eCl@ss	27-27-26-03

### Approval

Approval




### Classification

Standards	EN ISO 13849-1
B <sub>10d</sub> 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	280 g

## Mechanical data

---

Design of electrical connection	Connector M12
Mechanical life	> 1.000.000 operations
Emergency unlocking device (Y/N)	No
Manual release (Y/N)	Yes
- bottom	
- right	
Emergency release (Y/N)	No
Latching force	30 N
Positive break force	8.5 N
positive break travel	11 mm
Clamping force $F_{max}$	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	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 piece
Number of safety contacts	1 piece
Power to unlock	Yes
Power to lock	No
Rated control voltage $U_s$	110 VAC
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

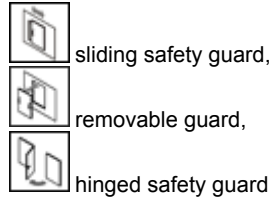
## ATEX

---

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

## Miscellaneous data

### Applications



## Dimensions

### Dimensions of the sensor

- Width of sensor	108 mm
- Height of sensor	75.5 mm
- Length of sensor	30 mm

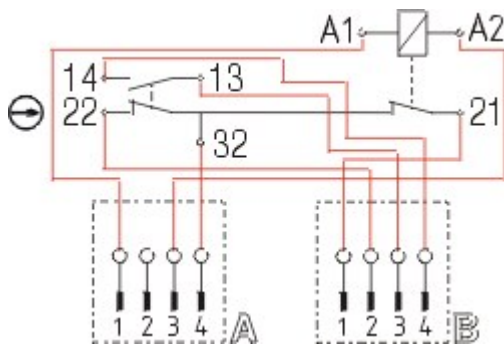
## notice

Individual coding available on request

Manual release from side

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

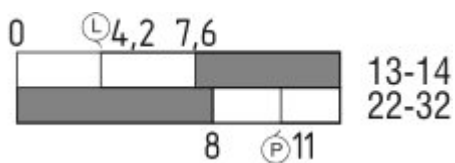
## Diagram



### 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

- (L)** Break point
- (P)** 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 170-11ZRK-ST-2197 110 VAC-**1637**

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

## Ordering code

---

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

**(1)**

without

**SK**

IDC method of termination

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

**R**

Latching force 5 N

**I**

Latching force 30 N

Individual coding

**(4)**

without

**A**

Power to unlock

Power to lock

**(5)**

without

**ST**

cable gland

Connector M12 x 1

**ST-2431**

Connector M12 x 1, Individual solenoid monitoring

**(6)**

**24VAC/DC**

U<sub>s</sub> 24 VAC/DC

**110VAC**

U<sub>s</sub> 110 VAC

**230VAC**

U<sub>s</sub> 230 VAC

**(7)**

without

**2197**

Manual release

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 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)

<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)** 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

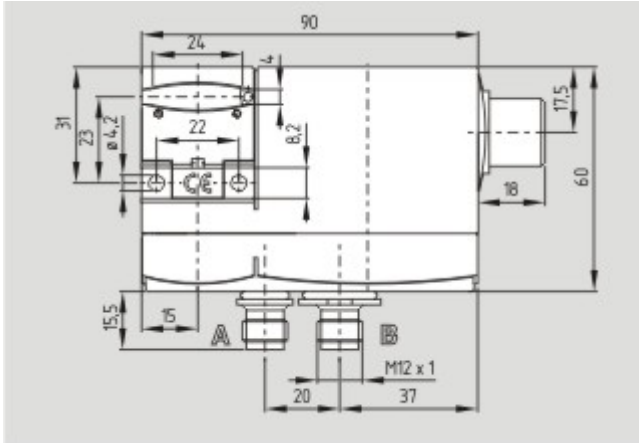
Code: q\_371p03

**Gost certification** (ru) 2 MB, 07.07.2011

Code: q\_az1p01

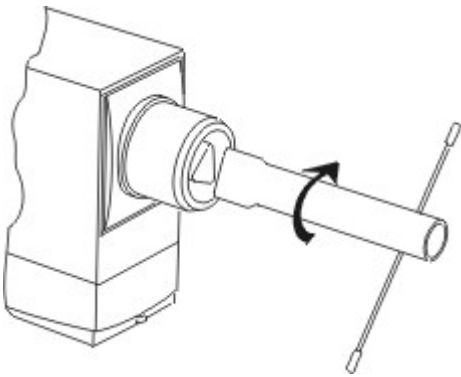
## Images

---



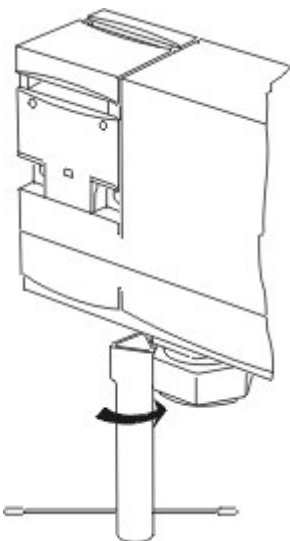
Dimensional drawing (basic component)

---



Detail photo

---



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

---

**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



### 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 19.08.2015 - 00:32:43h Kasbase 3.1.12.F.64l