# 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!)

# **Ordering details**

Product type description

Article number

EAN code

eCl@ss

AZM 170-02ZRKA 230 VAC

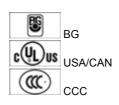
101136316

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27-27-26-03

### **Approval**

Approval



### Classification

Standards

B<sub>10d</sub> Opener (NC)

Mission time

notice

EN ISO 13849-1

2.000.000

20 Years

$$MTTF_d = \frac{B_{10d}}{0.1 \times n_{op}}$$

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

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 278 g

#### **Mechanical data**

Design of electrical connection IDC method of termination

Cable section

- Min. Cable section 1 x 0,75 mm<sup>2</sup>

- Max. Cable section 1 x 1.0 mm², flexible

Mechanical life > 1.000.000 operations

Emergency unlocking device (Y/N) No

- bottom

Manual release (Y/N)

Emergency release (Y/N)

Latching force

30 N

Positive break force

17 N

positive break travel

11 mm

Clamping force F<sub>max</sub>

1000 N

Max. Actuating speed

2 m/s

#### **Ambient conditions**

Ambient temperature

Min. environmental temperature
 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 230 VAC Power consumption max. 10 W Rated impulse withstand voltage Uimp 4 kV Rated insulation voltage Ui 250 V

Thermal test current line 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 Explosion protected category for dusts None

None

### Miscellaneous data

Applications



sliding safety guard,



removable guard,



hinged safety guard

### **Dimensions**

Dimensions of the sensor

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

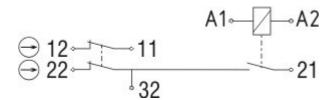
### notice

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

opositive break NC contact

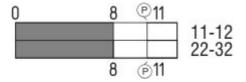




O—\_\_\_O Normally-open contact

o-t---o Normally-closed contact

# Switch travel diagram



Notes Switch travel diagram



Contact open

Setting range
(L) 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 170-02ZRKA 230 VAC-1637 ...-1637  $0,3\ \mu m$  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
1	Individual coding
(4)	
without	Power to unlock
A	Power to lock
(5)	
without	cable gland
ST	Connector M12 x 1
ST-2431	Connector M12 x 1, Individual solenoid monitoring

(6) 24VAC/DC **110VAC** 230VAC **(7)** 

Us 24 VAC/DC Us 110 VAC Us 230 VAC

without 2197 1637

Manual release from side (Power to unlock) gold-plated contacts

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

AZM 170ST and AZM 170SK

(1)

11/11 1 Normally open contact (NO), 1 Opener (NC) / 1 Normally open contact

Manual release

(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)

withoutPower to unlockAPower 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

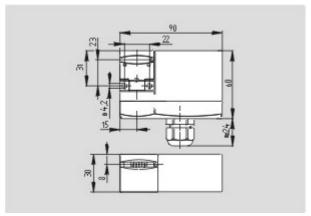
CCC certification (cn) 607 kB, 23.06.2014

Code: q\_371p03

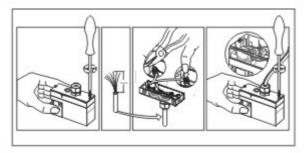
Gost certification (ru) 2 MB, 07.07.2011

Code: q\_az1p01

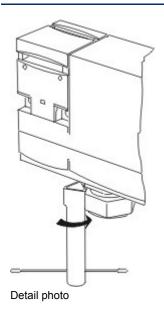
# **Images**



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**

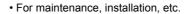


### 101208493 - AZM 170-B CENTERING GUIDE

• for AZ 17 and AZM 170

### 101100887 - TRIANGULAR KEY TK-M5

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





### 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 - 23:36:30h Kasbase 3.1.12.F.64I