# Datasheet - AZM 170SK-02ZRK-2197 230 VAC

Solenoid interlock / AZM 170





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

- 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
- · Manual release from side
- Screw connection

# **Ordering details**

Product type description

Article number

EAN Code

eCl@ss

AZM 170SK-02ZRK-2197 230 VAC

101144269

4030661132174

27-27-26-03

## **Approval**

Approval



### Classification

Standards

B10d Normally-closed contact (NC)

Mission time

notice

EN ISO 13849-1

2.000.000

20 Years

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

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

## **Global Properties**

Permanent light AZM 170

Standards EN 60947-5-1, BG-GS-ET-19

Compliance with the Directives (Y/N) Yes

Number of actuating directions 2

Active principle electromechanical
Duty cycle ED Magnet 100 %

- Material of the housings Plastic, glass-fibre reinforced thermoplastic, self-extinguishing

- Material of the contacts Silver
Housing coating None
Weight 300

#### **Mechanical data**

Materials

Design of electrical connection Screw connection

Cable section

- Min. Cable section 1 x 0,25

- Max. Cable section 1 x 1.5, flexible

Mechanical life > 1.000.000 operations

Emergency unlocking device (Y/N)

Manual release (Y/N)

Yes

- right

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

### **Ambient conditions**

Ambient temperature

Min. environmental temperature
 Max. environmental temperature
 +60 °C

Protection class IP67 to IEC/EN 60529

### **Electrical data**

Max. fuse rating

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
Number of safety contacts 2
Power to unlock Yes
Power to lock No
Rated control voltage  $U_s$  230 VAC
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 6 A gG D-fuse

## **ATEX**

Explosion protection categories for gases Explosion protected category for dusts None

None

## Miscellaneous data

Applications

S

sliding safety guard,



removable guard,



hinged safety guard

### **Dimensions**

Dimensions of the sensor

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

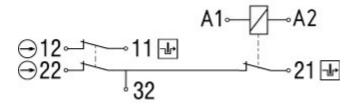
#### notice

Individual coding available on request

Manual release from side

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

## **Diagram**



Note Diagram

opositive break NC contact

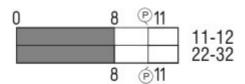
 $^{\scriptsize\textcircled{\tiny{1}}}_{\rm active}$ 



o\_\_\_\_o Normally-open contact

o-t--- Normally-closed contact

## Switch travel diagram



Notes Switch travel diagram

Contact closed

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 170SK-02ZRK-2197 230 VAC-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)

, ..... .. o(:, (=)=(o): (:, (o) (o)

(1)

without IDC method of termination

SK Screw connection

(2)

11 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

Individual coding

(4)

Ī

withoutPower to unlockAPower 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 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)

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) 701 kB, 15.02.2018

Code: mrl\_azm170\_fr

Operating instructions and Declaration of conformity (de) 672 kB, 20.05.2019

Code: mrl\_azm170\_de

Operating instructions and Declaration of conformity (it) 718 kB, 06.06.2019

Code: mrl\_azm170\_it

Operating instructions and Declaration of conformity (cn)  $655\ kB,\,08.05.2017$ 

Code: mrl\_azm170\_cn

Operating instructions and Declaration of conformity (nl) 702 kB, 12.07.2018

Code: mrl\_azm170\_nl

Operating instructions and Declaration of conformity (en) 702 kB, 20.05.2019

Code: mrl\_azm170\_en

Operating instructions and Declaration of conformity (jp) 843 kB, 23.08.2016

Code: mrl\_azm170\_jp

Operating instructions and Declaration of conformity (pl) 736 kB, 14.06.2018

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) 719 kB, 31.05.2019

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) 5 MB, 26.10.2018

Code: q\_371p02

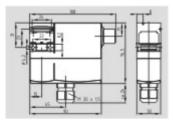
CCC certification (cn) 5 MB, 26.10.2018

Code: q\_371p03

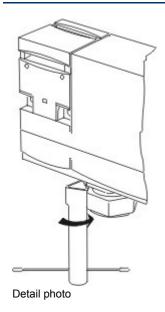
EAC certification (ru) 809 kB, 05.10.2015

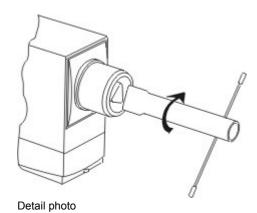
Code: q\_6040p17\_ru

# **Images**



Dimensional drawing (basic component)





## **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 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
- 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 26.07.2019 - 17:29:53h Kasbase 3.3.0.F.64I