# Datasheet - AZM 170-11ZRK-ST-2197 230 VAC

Solenoid interlock / AZM 170





- Thermoplastic enclosure
- ullet Double-insulated lacktriangle
- · 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

Article number

EAN code

eCl@ss

AZM 170-11ZRK-ST-2197 230 VAC

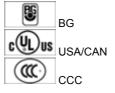
101141426

4030661121925

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

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

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

# **Global Properties**

Product name

Standards

AZM 170

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

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 503 g

### **Mechanical data**

Design of electrical connection Connector M12

Mechanical life > 1.000.000 operations

Emergency unlocking device (Y/N) No

- bottom

Manual release (Y/N) Yes

- right

Emergency release (Y/N) No

Latching force 30 N

Positive break force 8.5 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 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 Us

Power consumption

1 piece

1 piece

2 30 VAC

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



# **Dimensions**

Dimensions of the sensor

- Width of sensor
- Height of sensor
- Length of sensor

108 mm

75.5 mm

30 mm

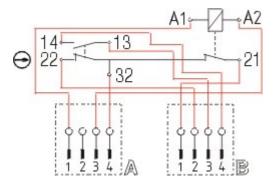
### notice

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

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 170-11ZRK-ST-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)

(1)

without IDC method of termination

SK Screw connection

(2)

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

2 Opener (NC) 02

1 Normally open contact (NO), 2 Opener (NC) / -12/0.0

(3)

without Latching force 5 N R Latching force 30 N

Individual coding

(4)

Ī

Power to unlock without Α Power 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)

1 Normally open contact (NO), 2 Opener (NC) / -

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

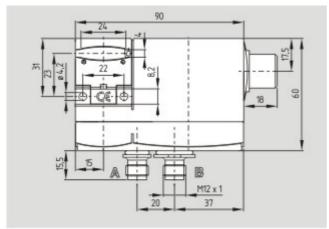
CCC certification (cn) 607 kB, 23.06.2014

Code: q\_371p03

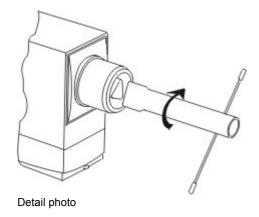
Gost certification (ru) 2 MB, 07.07.2011

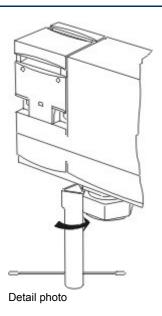
Code: q\_az1p01

# **Images**



Dimensional drawing (basic component)





#### **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



- 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 throroughly. Technical modifications and errors excepted. Generiert am 19.08.2015 - 00:33:08h Kasbase 3.1.12.F.64l