

Image

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

Article number

EAN code

AZM 170-11ZRKA 24 VAC/DC

1140796

4030661119847

**Approval** 

Approval



# Classification

Standards

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

Mission time

notice

EN ISO 13849-1

2.000.000

20 Years

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

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

### **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

2 m/s

- 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
 Mechanical life
 1 x 1.0 mm², flexible
 > 1.000.000 operations

Emergency unlocking device (Y/N) No

Manual release (Y/N) Yes

Manual release (Y/N)
- bottom

Emergency release (Y/N) No
Latching force 30 N
Positive break force 8.5 N
positive break travel 11 mm
Clamping force Fmax 1000 N

**Ambient conditions** 

Max. Actuating speed

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)

Switching principle Creep circuit element

Number of auxiliary contacts

1 piece

Number of safety contacts

1 piece

Power to unlock

No

Power to lock

Yes

Rated control voltage Us

Power consumption

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 sensorHeight of sensorLength of sensor

90 mm

84 mm

30 mm

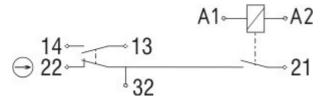
#### notice

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

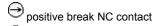
Manual release

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

# Diagram



Note Diagram



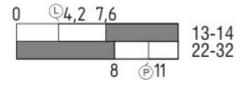
 $^{\scriptsize\textcircled{\tiny{1}}}_{\rm active}$ 



o—\_\_\_o Normally-open contact

o----- 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 170-11ZRKA 24 VAC/DC-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)

**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

I Individual coding

(4)

without Power to unlockA Power to lock

(5)

without cable glandST 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)

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)

without Power to unlockA Power to lock

(4)

1637 gold-plated contacts

(5)

2197 Manual release for Power to unlock

### **Documents**

Operating instructions and Declaration of conformity (de) 573 kB, 18.02.2011

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 (es) 665 kB, 25.03.2010

Code: mrl\_azm170\_es

Operating instructions and Declaration of conformity (en) 746 kB, 12.03.2010

Code: mrl azm170 en

Operating instructions and Declaration of conformity (fr) 670 kB, 01.07.2010

Code: mrl\_azm170\_fr

Operating instructions and Declaration of conformity (nl) 720 kB, 23.09.2010

Code: mrl\_azm170\_nl

Operating instructions and Declaration of conformity (jp) 709 kB, 14.04.2011

Code: mrl\_azm170\_jp

BG-test certificate (de) 589 kB, 05.01.2011

Code: z\_m17p01

BG-test certificate (en) 574 kB, 05.01.2011

Code: z\_m17p02

CCC certification (en) 747 kB, 12.12.2006

Code: q\_371p02

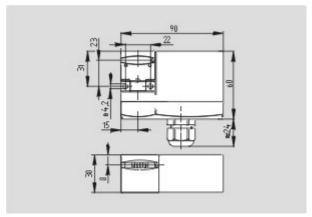
CCC certification (cn) 725 kB, 12.12.2006

Code: q\_371p03

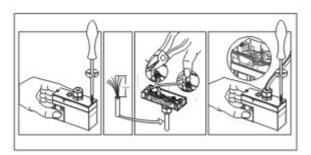
Gost certification (ru) 2 MB, 07.07.2011

Code: q\_az1p01

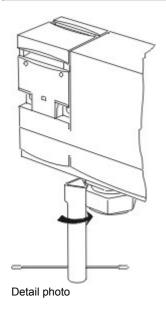
# **Images**



Dimensional drawing (basic component)



Assembly example



# **System components**

# Actuator



# 1122893 - AZ 17/170-B1

• Particularly suitable for sliding doors



### 1137406 - AZ 17/170-B1-2245

• Damps vibration on guard device



### 1122895 - AZ 17/170-B5

• Particularly suitable for hinged guards (front mounting)



### 1139788 - AZ 17/170-B11

• Particularly suitable for sliding doors



# 1139789 - AZ 17/170-B15

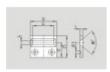
• Particularly suitable for hinged guards (front mounting)



# 1123391 - AZM 170-B6

- For very smal actuating radii
- The direction of actuation can be selected by applicable insertion of the insert





# 1208493 - AZM 170-B CENTERING GUIDE

• for AZ 17 and AZM 170



### 1100887 - TRIANGULAR KEY 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

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The data and values have been checked throroughly. Technical modifications and errors excepted.
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