# Datasheet - AZM 170-11ZRKA 24 VAC/DC

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 170-11ZRKA 24 VAC/DC

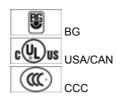
101140796

4030661119847

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

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

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

#### **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 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

- bottom

Manual release (Y/N) Yes

Emergency release (Y/N) No

Latching force 30 N

Positive break force 8.5 N

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**

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 contacts1 pieceNumber of safety contacts1 piecePower to unlockNoPower to lockYes

Rated control voltage  $U_s$  24 VAC/DC Power consumption max. 10 W Rated impulse withstand voltage  $U_{imp}$  4 kV Rated insulation voltage  $U_i$  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

sl

sliding safety guard,



90 mm

84 mm

30 mm

removable guard,

hind

hinged safety guard

## **Dimensions**

Dimensions of the sensor

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

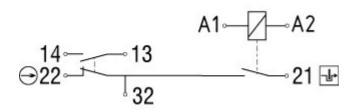
### notice

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

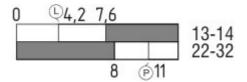


no active

o-\_\_- Normally-open contact

o----- Normally-closed contact

# Switch travel diagram



Notes Switch travel diagram



Contact open  Setting range  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	
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)	Lataking faces 5 N
without R	Latching force 5 N  Latching force 30 N
I.	Individual coding
	marvioual coding
(4) without	Power to unlock
A	Power to lock
	1 0 11 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1
(5) without	cable gland
ST	Connector M12 x 1
ST-2431	Connector M12 x 1, Individual solenoid monitoring
(6)	
24VAC/DC	U₅ 24 VAC/DC
110VAC	U₅ 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
	74   1   1   1   1   1   1   1   1   1

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)

2 Opener (NC), - / 1 Opener (NC), -

02/10 2 Opener (NC), - / 1 Normally open contact (NO), -

(2)

02/01

without Latching force 5 N R

Latching force 30 N

(3)

without Power to unlock Power to lock Α

(4)

1637 gold-plated contacts

(5)

Manual release for Power to unlock 2197

#### **Documents**

Operating instructions and Declaration of conformity (fr) 611 kB, 29.04.2016

Code: mrl\_azm170\_fr

Operating instructions and Declaration of conformity (de) 595 kB, 25.04.2016

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) 611 kB, 25.04.2016

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) 260 kB, 09.12.2015

Code: z\_m17p02

BG-test certificate (de) 257 kB, 09.12.2015

Code: z\_m17p01

CCC certification (en) 596 kB, 23.06.2014

Code: q\_371p02

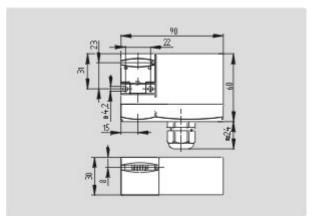
CCC certification (cn) 607 kB, 23.06.2014

Code: q\_371p03

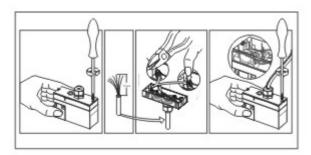
EAC certification (ru) 809 kB, 05.10.2015

Code: q\_6040p17\_ru

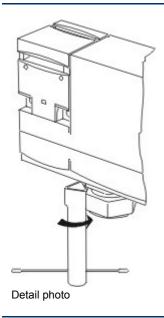
# **Images**



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



- 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 15.07.2016 - 18:02:08h Kasbase 3.2.4.F.64I