13.02.2019

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SCHMERSAL

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

Solenoid interlock / AZM 170

X 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
- Screw connection
- Manual release

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

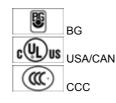
#### **Ordering details**

Product type description
Article number
EAN Code
eCl@ss

Approval

Approval

AZM 170SK-11ZRKA 24 VAC/DC 101144262 4030661132105 27-27-26-03



#### Classification

Standards B10d Normally-closed contact (NC) Mission time notice

# EN ISO 13849-1 2.000.000 20 Years MTTF<sub>d</sub> = $\frac{B_{100}}{0.1 \times n_{op}}$

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

# **Global Properties**

Permanent light	AZM 170
Standards	EN 60947-5-1, BG-GS-ET-19
Compliance with the Directives (Y/N) C $\epsilon$	Yes
Number of actuating directions	2
Active principle	electromechanical
Duty cycle ED	Magnet 100 %
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
- Material of the contacts	Silver
Housing coating	None
Weight	300

# Mechanical data

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)	No	
Manual release (Y/N)	Yes	
- bottom		
Emergency release (Y/N)	No	
Latching force	30	
Positive break force	8.5	
positive break travel	11 mm	
Clamping force F	1000 N	
Max. Actuating speed	2 m/s	

#### **Ambient conditions**

Ambient temperature	
- Min. environmental temperature	−25 °C
- 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
Number of safety contacts	1
Power to unlock	No
Power to lock	Yes
Rated control voltage Us	24 VAC/DC
Power consumption	max. 10 W
Rated impulse withstand voltage Uimp	4 kV
Rated insulation voltage Ui	250 V
Thermal test current Ithe	10 A
Utilisation category	AC-15: 230 V / 4 A

#### ATEX

Explosion protection categories for gases Explosion protected category for dusts

Miscellaneous data

Applications

DC-13: 24 V / 4 A

6 A gG D-fuse

None

None



**Dimensions** 

Dime	ensions of the sensor	
- W	/idth of sensor	90
- H	leight of sensor	100.5
- Le	ength of sensor	30 mm

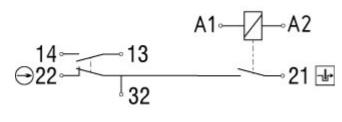
## notice

Individual coding available on request

Manual release

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

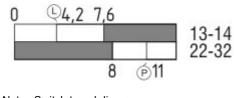
# Diagram



Note Diagram

⇒ positive break NC contact
ⓐ active
ⓐ no active
○ Normally-open contact
○ Normally-closed contact

# Switch travel diagram



Notes Switch travel diagram

Contact closed

Contact open
Setting range
L Break point
Positive opening
VS adjustable range

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-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 approacted (NO) / 1 Opener (NC)
02	1 Normally open contact (NO) / 1 Opener (NC) 2 Opener (NC)
12/0.0	1 Normally open contact (NO), 2 Opener (NC) / -
	r Normany Open Contact (NO), 2 Opener (NC)7 -
(3)	
without	Latching force 5 N
R	Latching force 30 N
I	Individual coding
(4)	
without	Power to unlock
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 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 unlock
Α	Power 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) 668 kB, 11.01.2018 Code: mrl\_azm170\_de

**Operating instructions and Declaration of conformity** (it) 697 kB, 16.01.2018 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) 700 kB, 11.01.2018 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) 702 kB, 17.01.2018 Code: mrl\_azm170\_es Code: z\_m17p02

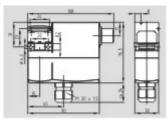
**BG-test certificate** (de) 257 kB, 09.12.2015 Code: z\_m17p01

**CCC certification** (en) 5 MB, 26.10.2018 Code: q\_371p02

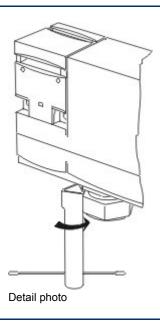
CCC certification (cn) 5 MB, 26.10.2018 Code: q\_371p03

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



• 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 13.02.2019 - 14:44:45h Kasbase 3.3.0.F.64l