25.07.2019

23:09:46h

# Datasheet - AZM 170-11ZRK-ST-2197 110 VAC

Solenoid interlock / AZM 170





Thermoplastic enclosure
Double-insulated

- 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

**Ordering details** 

 Product type description
 AZM 170-11ZRK-ST-2197 110 VAC

 Article number
 101141423

 EAN Code
 4030661121895

 eCl@ss
 27-27-26-03

#### Approval

Approval



#### Classification

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



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

# **Global Properties**

Permanent light Standards AZM 170 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	280

# Mechanical data

Design of electrical connection	Connector M12
Mechanical life	> 1.000.000 operations
Emergency unlocking device (Y/N)	No
	Yes
Manual release (Y/N)	Tes
- bottom	
- right	
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	Yes
Power to lock	No
Rated control voltage Us	110 VAC
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, 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	

## Applications

sliding safety guard, removable guard,

# Dimensions

Dimensions of the sensor	
- Width of sensor	108
- Height of sensor	75.5
- Length of sensor	30 mm

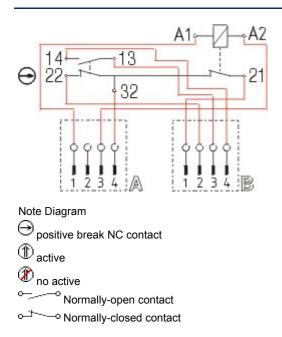
### notice

Individual coding available on request

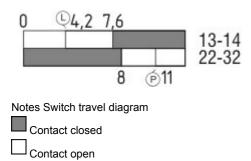
Manual release from side

- For manual release using M5 triangular key, available as accessory
- Additional manual release on side

# Diagram



## Switch travel diagram



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 170-11ZRK-ST-2197 110 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)	
(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) / -
	r Normany open contact (NO), 2 Opener (NC) / -
(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
	03200 000
(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 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) 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

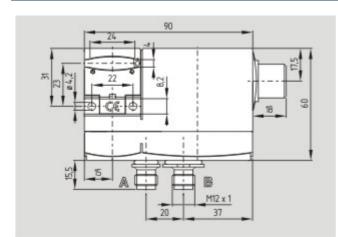
Code: z\_m17p01

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

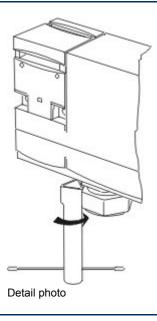
**CCC certification** (cn) 5 MB, 26.10.2018 Code: q\_371p03

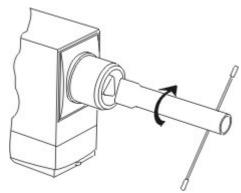
**EAC certification** (ru) 809 kB, 05.10.2015 Code: q\_6040p17\_ru

# Images



Dimensional drawing (basic component)





Detail photo

#### System components





### 101100887 - TRIANGULAR KEY TK-M5

- For manual release using M5 triangular key, available as accessory
- For maintenance, installation, etc.

# Connector





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 25.07.2019 - 23:09:49h Kasbase 3.3.0.F.64I