# Datasheet - AZM 161CC-12/12RK-024

Solenoid interlock / AZM 161

☑ Preferred typ





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

- Thermoplastic enclosure
- Double-insulated
- Interlock with protection against incorrect locking.
- 130 mm x 90 mm x 30 mm
- 6 Contacts
- · Long life
- Large wiring compartment
- Manual release
- cable entries 4 M 16 x 1.5

## **Ordering details**

Product type description

Article number

EAN code

eCl@ss

AZM 161CC-12/12RK-024

101166283

4030661213958

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

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

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

### **Global Properties**

Product name AZM 161

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

Compliance with the Directives (Y/N) Yes

Number of actuating directions 3 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 475 g

#### **Mechanical data**

Actuating play in direction of actuation 5.5 mm

Design of electrical connection Cage clamps

Cable section

Min. Cable section
 Max. Cable section
 1 x 0,25 mm²
 1 x 1.5 mm²

Mechanical life > 1.000.000 operations

notice All indications about the cable section are including the conductor ferrules.

Emergency unlocking device (Y/N) No Manual release (Y/N) Yes Emergency release (Y/N) No Latching force 30 N Positive break force 20 N positive break travel 10 mm 2000 N Clamping force F 2 m/s Max. Actuating speed

Actuating frequency max. 1000 / h

## **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)

Switching principle Creep circuit element

Number of auxiliary contacts2 pieceNumber of safety contacts4 piecePower to unlockYesPower to lockNo

Rated control voltage Us 24 VAC/DC Power consumption max. 10 W Rated impulse withstand voltage U<sub>imp</sub> 4 kV

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> 6 A

Utilisation category AC-15: 230 V / 4 A, DC-13: 24 V / 2,5 A

Required rated short-circuit current 1000 A

### **ATEX**

Explosion protection categories for gases Explosion protected category for dusts

None

None

## Miscellaneous data

Applications

sliding safety guard,



removable guard,

 $\frac{1}{2}$ 

hinged safety guard

#### **Dimensions**

Dimensions of the sensor

- Width of sensor

Height of sensorLength of sensor

130 mm

90 mm

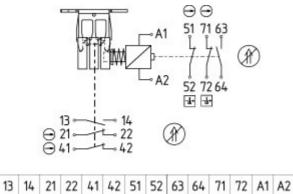
30 mm

### notice

### Manual release

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

## **Diagram**



## Note Diagram

 $\bigcirc$  positive break NC contact

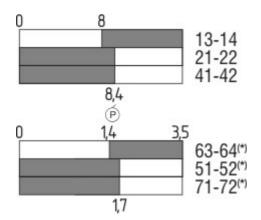




o-\_\_-o Normally-open contact

o---¹---o Normally-closed contact

# Switch travel diagram



Notes Switch travel diagram

Contact closed

Contact open

Setting range

(L) Break point

Positive opening sequence/- angle

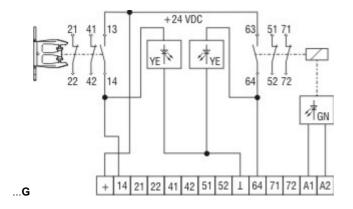
VS adjustable range of NO contact

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 161CC-12/12RK-024**G** 



Protected against incorrect polarity and voltage spikes. limited terminating space 0,75 mm<sup>2</sup>

### Diagram

14 guard open 13 +24 VDC

63 0 VDC

64 unlocked

## **Ordering code**

## AZM 161 (1)-(2)(3)K(4)-(5)-(6)(7)

(1)

SK

CC

ST

(2)

12/12

12/11

11/12

(3)

without

R

Screw connection

Cage clamps

male connector M12, 8- and 4-poles (Only for Us: 24 VAC/DC)

- 2 Normally open contact (NO) / 4 Opener (NC)
- 2 Normally open contact (NO) / 3 Opener (NC) (Plug-in connection)
- 2 Normally open contact (NO) / 3 Opener (NC) (Plug-in connection)

Latching force 5 N

Latching force 30 N

(4)

without Power to unlock

A Power to lock

(5)

without

ED

Manual release lateral

Manual release cover-side

EU

Manual release rear

T

Emergency exit lateral

TD

Emergency exit cover-side

TU

Emergency exit rear

N

Emergency release

(6)

 024
 Us: 24 VAC/DC

 110/230
 Us: 110/230 VAC

**(7)** 

**G** with LED (Only for Us: 24 VAC/DC)

#### **Documents**

Operating instructions and Declaration of conformity (sv) 423 kB, 15.08.2012

Code: mrl\_azm161\_sv

Operating instructions and Declaration of conformity (es) 566 kB, 09.03.2016

Code: mrl\_azm161\_es

Operating instructions and Declaration of conformity (de) 439 kB, 29.01.2016

Code: mrl\_azm161\_de

Operating instructions and Declaration of conformity (pt) 402 kB, 10.07.2014

Code: mrl\_azm161\_pt

Operating instructions and Declaration of conformity (en) 443 kB, 29.01.2016

Code: mrl\_azm161\_en

Operating instructions and Declaration of conformity (pl) 424 kB, 24.03.2014

Code: mrl\_azm161\_pl

Operating instructions and Declaration of conformity (fr)  $444\ kB,\,28.04.2016$ 

Code: mrl\_azm161\_fr

Operating instructions and Declaration of conformity (cs) 425 kB, 15.08.2012

Code: mrl\_azm161\_cs

Operating instructions and Declaration of conformity (jp) 481 kB, 11.03.2014

Code: mrl\_azm161\_jp

Operating instructions and Declaration of conformity (it) 438 kB, 19.04.2016

Code: mrl\_azm161\_it

Operating instructions and Declaration of conformity (nl) 425 kB, 15.08.2012

Code: mrl\_azm161\_nl

BG-test certificate (de) 140 kB, 20.05.2015

Code: z\_m16p01

BG-test certificate (en) 134 kB, 20.05.2015

Code: z\_m16p02

CCC certification (en) 596 kB, 23.06.2014

Code: q\_371p02

CCC certification (cn) 607 kB, 23.06.2014

Code: q\_371p03

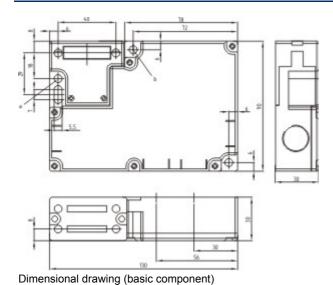
EAC certification (ru) 809 kB, 05.10.2015

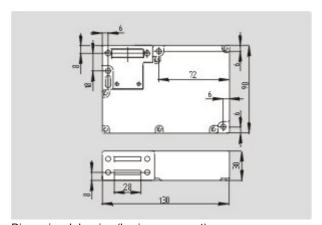
Code: q\_6040p17\_ru

notice (de, en) 88 kB, 27.09.2007

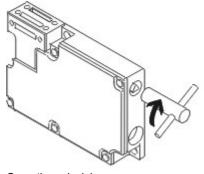
Code: s\_161p01

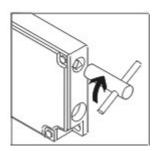
## **Images**





Dimensional drawing (basic component)





Operating principle

## **System components**

## **Actuator**



101145117 - AZM 161-B1

101144416 - AZM 161-B1E



101171859 - AZM 161-B1ES

T

101175431 - AZM 161-B1F

101171125 - AZM 161-B1S







### 101164100 - AZM 161-B1-1747 WITH MAGNETIC LATCH



## 101178199 - AZM 161-B1-2024



## 101176642 - AZM 161-B1-2177 WITH CENTERING GUIDE



# 101174113 - AZM 161-B6-2177 WITH CENTERING GUIDE

• For very smal actuating radii



## 101170375 - AZM 161-B6S



## 101144420 - AZM 161-B6

• For very smal actuating radii

# **Door-handle system**

### **AZM 161-STS30**

- · Latching handle
- Suitable for all types of guard



### **Accessories**



## 101100887 - TRIANGULAR KEY TK-M5

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



101149213 - Mounting set MS AZM 161 R/P

101150376 - Mounting set MS AZM 161 P



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 - 17:39:48h Kasbase 3.2.4.F.64I