

## Datasheet - AZM 161SK-12/12RI-024-B1

Solenoid interlock / AZM 161I / AZM 161I-B1



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

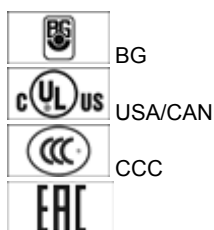
- Compact design
- Interlock with protection against incorrect locking.
- Individual coding
- Coding level "High" according to ISO 14119
- Double-insulated
- High holding force
- Long life
- 130 mm x 90 mm x 30 mm
- 1 Cable entry M 20 x 1.5
- Screw connection
- Manual release from side
- Particularly suitable for sliding doors

### Ordering details

Product type description	AZM 161SK-12/12RI-024-B1
Article number	101213351
EAN code	4030661396002
eCl@ss	27-27-26-03

### Approval

Approval



### Classification

Standards	EN ISO 13849-1
B <sub>10d</sub> Normally-closed contact (NC)	2.000.000
Mission time	20 Years
notice	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{cp} \times 3600 \text{ s/h}}{t_{cycle}}$

### Global Properties

Product name	AZM 161I
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
- Individual coding	
- Coding level "High" according to ISO 14119	
Duty cycle	Magnet 100 %
Materials	
- Material of the housings	glass-fibre reinforced thermoplastic, Plastic self-extinguishing,
- Material of the actuator	Stainless steel
- Material of the contacts	Silver
Housing coating	None
Weight	490 g

## Mechanical data

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Design of electrical connection	Screw connection
Cable section	
- Min. Cable section	1 x 0,25 mm <sup>2</sup>
- Max. Cable section	1 x 1.5 mm <sup>2</sup> , flexible
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
Clamping force F	2000 N
Max. Actuating speed	2 m/s
Minimum actuating radius	150 mm
Actuating frequency	max. 1000 / h

## Ambient conditions

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Ambient temperature	
- Min. environmental temperature	-25 °C
- Max. environmental temperature	+60 °C
Protection class	IP67 to IEC/EN 60529

## Electrical data

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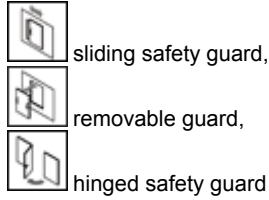
Design of control element	Normally open contact (NO), Opener (NC)
Switching principle	Creep circuit element
Number of auxiliary contacts	2 piece
Number of safety contacts	4 piece
Power to unlock	Yes
Power to lock	No
Rated control voltage U <sub>s</sub>	24 VAC/DC
Power consumption	max. 10 W
Rated impulse 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
Max. fuse rating	6 A gG D-fuse To DIN EN 60269-1

## ATEX

Explosion protection categories for gases	None
Explosion protected category for dusts	None

## Miscellaneous data

Applications



## Dimensions

Dimensions of the sensor

- Width of sensor	130 mm
- Height of sensor	90 mm
- Length of sensor	30 mm

## notice

On hinged guards, minimum actuating radius at 90° to the plane of the actuator 180 mm  
minimum actuating radius on hinged guards in line with the plane of the actuator 150 mm

**The actuator is not available separately.**

The axis of the hinge should be 5 mm above the top edge of the safety switch and in the same plane

Manual release

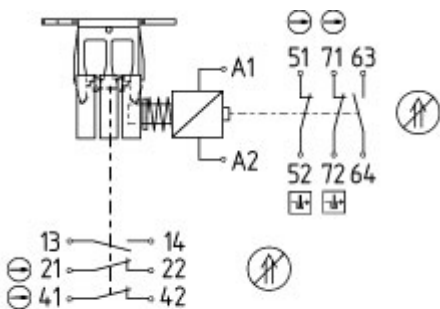
- For manual release using M5 triangular key, available as accessory
- For maintenance, installation, etc.

## Included in delivery

Included in delivery

- Individually coded actuator
- tamperproof screws
- Slot sealing plugs

## Diagram






13	14	21	22	41	42	51	52	63	64	71	72	A1	A2
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Note Diagram

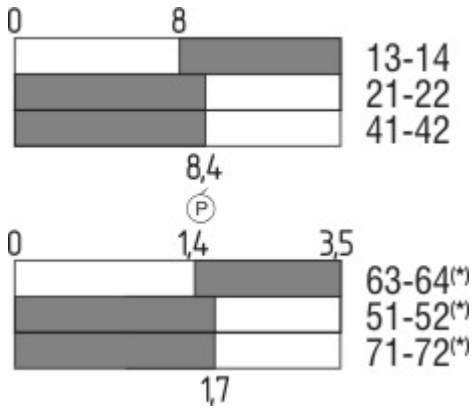
⊖ positive break NC contact

⊕ active






-  no active
-  Normally-open contact
-  Normally-closed contact

## Switch travel diagram

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Notes Switch travel diagram

-  Contact closed
-  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

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The applicable ordering suffix is added at the end of the part number of the safety switch.  
Order example: AZM 161SK-12/12RI-024-B1-**1637**

...-**1637**

0,3 µm gold-plated contacts

## Documents

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**Operating instructions and Declaration of conformity** (en) 562 kB, 20.01.2016

Code: mrl\_azm161i\_en

**Operating instructions and Declaration of conformity** (jp) 767 kB, 12.04.2016

Code: mrl\_azm161i\_jp

**Operating instructions and Declaration of conformity** (nl) 511 kB, 15.08.2012

Code: mrl\_azm161i\_nl

**Operating instructions and Declaration of conformity** (da) 504 kB, 27.08.2012

Code: mrl\_azm161i\_da

**Operating instructions and Declaration of conformity** (de) 565 kB, 20.01.2016

Code: mrl\_azm161i\_de

**Operating instructions and Declaration of conformity** (pl) 589 kB, 06.04.2016

Code: mrl\_azm161i\_pl

**Operating instructions and Declaration of conformity (es)** 444 kB, 09.03.2016

Code: mrl\_azm161i\_es

**Operating instructions and Declaration of conformity (pt)** 573 kB, 27.04.2017

Code: mrl\_azm161i\_pt

**Operating instructions and Declaration of conformity (sv)** 498 kB, 27.08.2012

Code: mrl\_azm161i\_sv

**Operating instructions and Declaration of conformity (cs)** 586 kB, 19.04.2016

Code: mrl\_azm161i\_cs

**Operating instructions and Declaration of conformity (it)** 562 kB, 19.04.2016

Code: mrl\_azm161i\_it

**Operating instructions and Declaration of conformity (fr)** 567 kB, 28.04.2016

Code: mrl\_azm161i\_fr

**EAC certification (ru)** 809 kB, 05.10.2015

Code: q\_6040p17\_ru

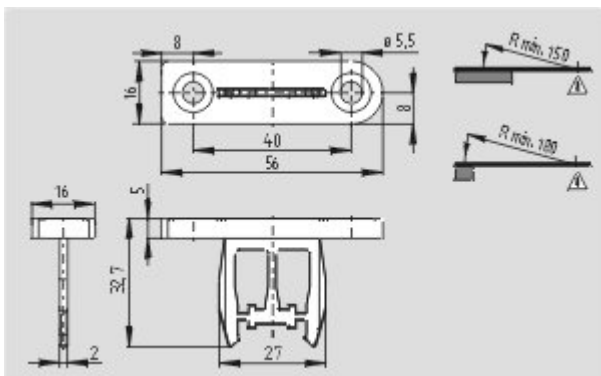
## Images

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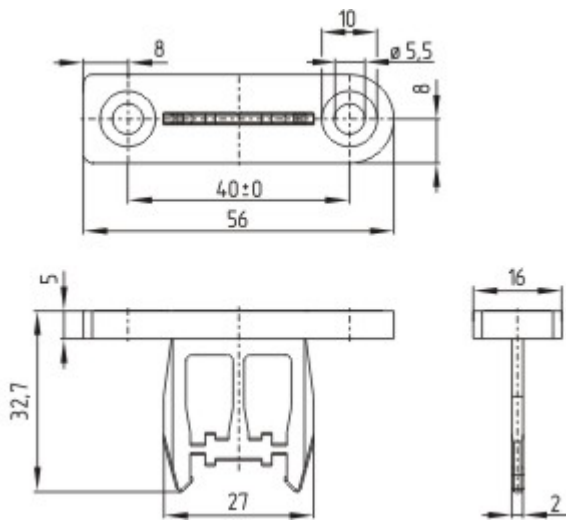
Product photo

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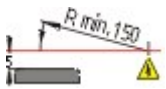


Dimensional drawing (miscellaneous)

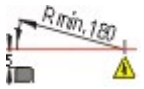
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Dimensional drawing (miscellaneous)



Actuating radius



Actuating radius

K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal

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

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