Datasheet - AZM 161SK-12/12RKA-024

Solenoid interlock / AZM 161

☒ Preferred typ

(Minor differences between the printed image and the original product may exist!)
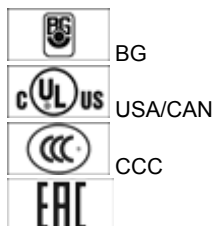
• Thermoplastic enclosure
• Double-insulated ▢
• Interlock with protection against incorrect locking.
• 130 mm x 90 mm x 30 mm
• 6 Contacts
• Long life
• Large wiring compartment
• Manual release
• 4 cable entries M 16 x 1.5

Ordering details

Product type description	AZM 161SK-12/12RKA-024
Article number	101166285
EAN code	4030661213972
eCl@ss	27-27-26-03

Approval

Approval

BG

USA/CAN

CCC

Classification

Standards	EN ISO 13849-1
B_{10d} Opener (NC)	2.000.000
Mission time	20 Years
notice	

$$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$$

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

Global Properties

Product name	AZM 161
Standards	EN 60947-5-1, BG-GS-ET-19
Compliance with the Directives (Y/N) $C\,\epsilon$	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	460 g

Mechanical data

Actuating play in direction of actuation	5.5 mm
Design of electrical connection	Screw connection
Cable section	
- Min. Cable section	1 x 0,25 mm²
- Max. Cable section	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
Clamping force F	2000 N
Max. Actuating speed	2 m/s
Actuating frequency	max. 1000 / h

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)
Switching principle	Creep circuit element
Number of auxiliary contacts	2 piece
Number of safety contacts	4 piece
Power to unlock	No
Power to lock	Yes
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 I_{the}	6 A
Utilisation category	AC-15: 230 V / 4 A, DC-13: 24 V / 2,5 A
Required rated short-circuit current	1000 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

 sliding safety guard,

 removable guard,

 hinged safety guard

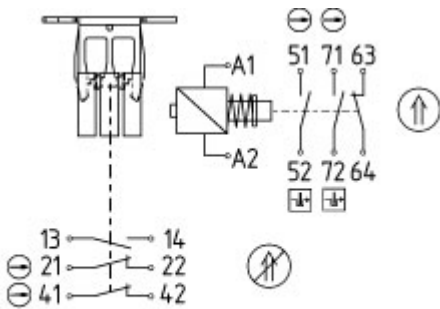## Dimensions

Dimensions of the sensor

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

notice

Manual release

• For maintenance, installation, etc.

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

Diagram

Note Diagram
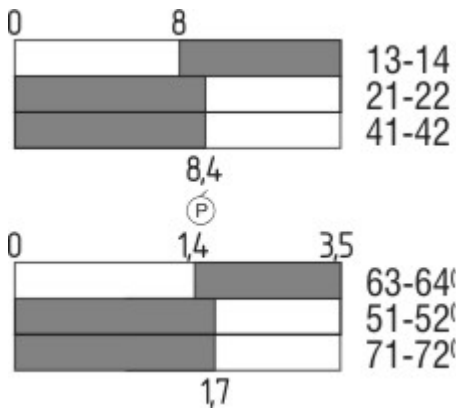
 positive break NC contact

 active

 no active

 Normally-open contact

 Normally-closed contact
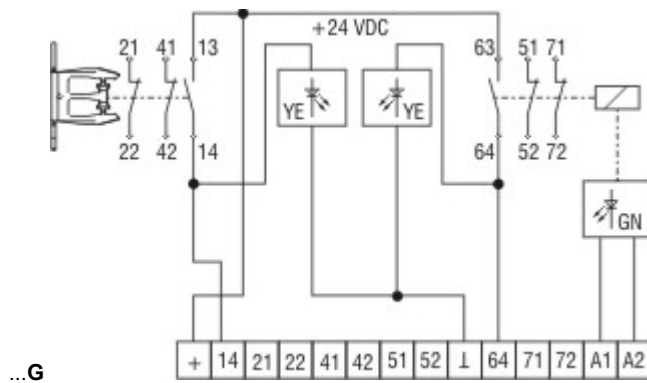
Switch travel diagram

Notes Switch travel diagram

■ Contact closed

□ Contact open

▨ Setting range

Ⓛ 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 161SK-12/12RKA-024**G**

...**G**

Protected against incorrect polarity and voltage spikes.
limited terminating space 0,75 mm²
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	Screw connection
CC	Cage clamps
ST	male connector M12, 8- and 4-poles *(Only for Us: 24 VAC/DC)*

(2)	
12/12	2 Normally open contact (NO) / 4 Opener (NC)
12/11	2 Normally open contact (NO) / 3 Opener (NC) *(Plug-in connection)*
11/12	2 Normally open contact (NO) / 3 Opener (NC) *(Plug-in connection)*

(3)	
without	Latching force 5 N
R	Latching force 30 N

(4)

without	Power to unlock
A	Power to lock

(5)

without	Manual release lateral
ED	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	U_s: 24 VAC/DC
110/230	U_s: 110/230 VAC

(7)

G	with LED *(Only for U_s: 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) 400 kB, 11.03.2014
Code: mrl_azm161_es

Operating instructions and Declaration of conformity (de) 390 kB, 13.02.2014
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) 394 kB, 13.02.2014
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) 401 kB, 14.04.2014
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) 392 kB, 11.03.2014
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
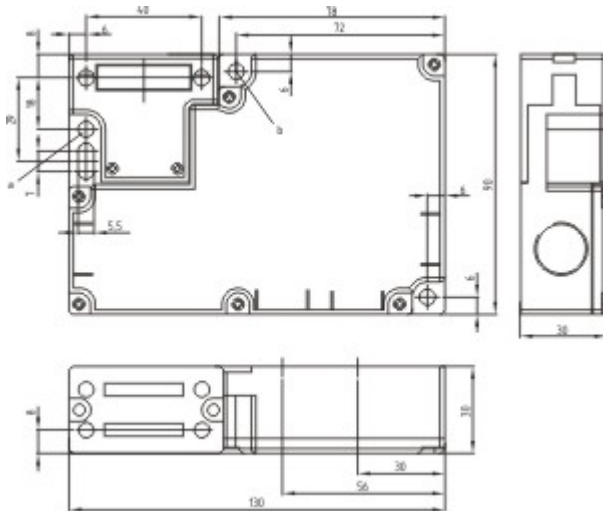
CCC certification (cn) 607 kB, 23.06.2014
Code: q_371p03

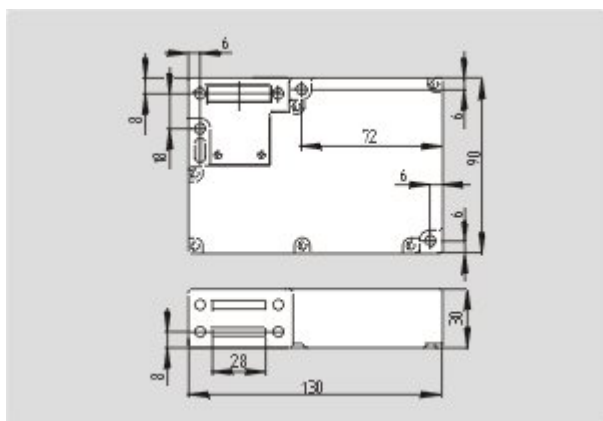**EAC certification** (ru) 809 kB, 05.10.2015
Code: q_6040p17_ru

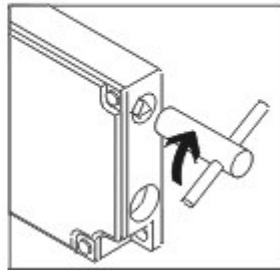**notice** (de, en) 88 kB, 27.09.2007
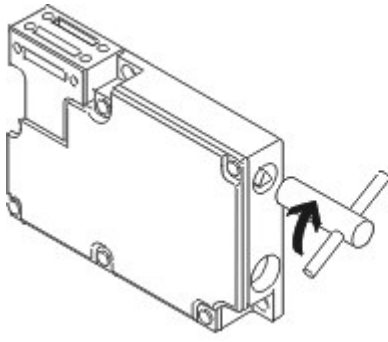Code: s_161p01

Images

Dimensional drawing (basic component)

Dimensional drawing (basic component)

Operating principle

System components

Actuator

101145117 - AZM 161-B1

101144416 - AZM 161-B1E

101171859 - AZM 161-B1ES

101175431 - AZM 161-B1F

101171125 - AZM 161-B1S

101173089 - AZM 161-B1-2053 WITH BALL LATCH

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