

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

Solenoid interlock / AZM 161



- 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

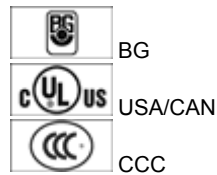
(Minor differences between the printed image and the original product may exist!)

Ordering details

Product type description	AZM 161SK-12/12RK-024
Article number	1164207
EAN code	4030661205144

Approval

Approval



Classification

Standards	EN ISO 13849-1
B _{10d} Opener (NC)	2.000.000
Mission time notice	20 Years
	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$
	$n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{zyklus}}$

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	500 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 0,75 mm ²
- Max. Cable section	1 x 1.5 mm ²
Mechanical life	> 1.000.000 operations
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	9.5 mm
Clamping force F _{max}	2000 N
Max. Actuating speed	2 m/s
notice	All indications about the cable section are including the conductor ferrules.

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	Yes
Power to lock	No
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}	10 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



sliding safety guard,



removable guard,



hinged safety guard

Dimensions

Dimensions of the sensor

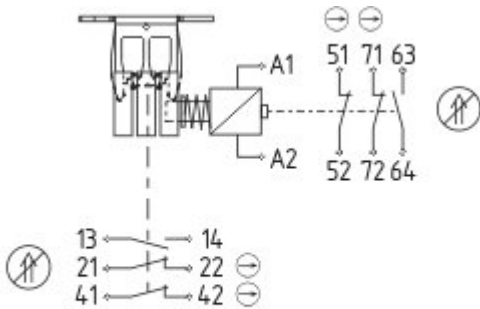
- Width of sensor	130 mm
- Height of sensor	90 mm
- Length of sensor	30 mm

notice

Manual release

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

Diagram



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

positive break NC contact

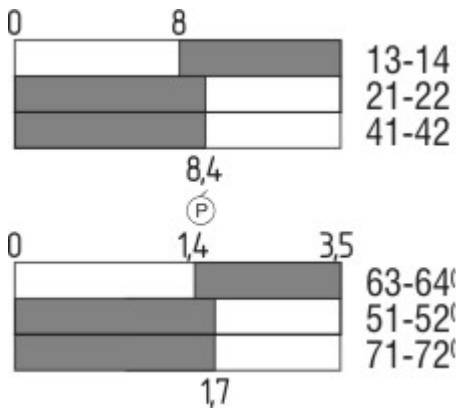
active

no active

Normally-open contact

Normally-closed contact

Switch travel diagram



Notes Switch travel diagram

- Contact closed
- Contact open
- Setting range
- L Break point
- P 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-12/12RK-024**G**

...G Protected against incorrect polarity and voltage spikes.
limited terminating space 0,75 mm²

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 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 (jp) 858 kB, 16.12.2009

http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/bedien/AZM_161_12_12/JP/mrl_azm161_jp.pdf

Operating instructions and Declaration of conformity (fr) 752 kB, 16.12.2009

http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/bedien/AZM_161_12_12/FR/mrl_azm161_fr.pdf

Operating instructions and Declaration of conformity (es) 711 kB, 16.12.2009

http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/bedien/AZM_161_12_12/ES/mrl_azm161_es.pdf

Operating instructions and Declaration of conformity (en) 751 kB, 16.12.2009

http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/bedien/AZM_161_12_12/EN/mrl_azm161_en.pdf

Operating instructions and Declaration of conformity (de) 762 kB, 16.12.2009

http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/bedien/AZM_161_12_12/DE/mrl_azm161_de.pdf

Operating instructions and Declaration of conformity (nl) 659 kB, 16.12.2009

http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/bedien/AZM_161_12_12/NL/mrl_azm161_nl.pdf

Operating instructions and Declaration of conformity (it) 706 kB, 16.12.2009

http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/bedien/AZM_161_12_12/IT/mrl_azm161_it.pdf

BG-test certificate (en) 219 kB, 09.02.2010

http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/baumuste/z_m16p02.pdf

BG-test certificate (de) 219 kB, 09.02.2010

http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/baumuste/z_m16p01.pdf

CCC certification (en) 747 kB, 12.12.2006

http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/zertifikat/q_371p02.pdf

CCC certification (cn) 725 kB, 12.12.2006

http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/zertifikat/q_371p03.pdf

notice (de, en) 88 kB, 27.09.2007

http://www.schmersal.net/Bilddata/Azm/Pdf/Azm161/sonder/s_161p01.pdf

Images

Actuator

1145117 - AZM 161-B1



1144416 - AZM 161-B1E



1171859 - AZM 161-B1ES



1175431 - AZM 161-B1F



1171125 - AZM 161-B1S



1173089 - AZM 161-B1-2053 WITH BALL LATCH



1164100 - AZM 161-B1-1747 WITH MAGNETIC LATCH



1178199 - AZM 161-B1-2024



1176642 - AZM 161-B1-2177 WITH CENTERING GUIDE



1174113 - AZM 161-B6-2177 WITH CENTERING GUIDE

- For very small actuating radii



1170375 - AZM 161-B6S



1144420 - AZM 161-B6

- For very small actuating radii



Door-handle system



AZM 161-STS30

- Latching handle
- Suitable for all types of guard