


Datasheet - EX-AZM 161SK-12/12K-024-3D

Solenoid interlock / EX-AZM 161



- Screw connection
- 6 Contacts
- 130 mm x 114 mm x 30 mm
- Large wiring compartment
- Clamping force 2000N
- Manual release
- Interlock with protection against incorrect locking.
- High holding force
- Long life
- Double-insulated 
- Ex-certified screwed cable gland
- Ex certified
- 4 cable entries M 16 x 1.5

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

Ordering details

Product type description	EX-AZM 161SK-12/12K-024-3D
Article number	101191458
EAN Code	4030661350639
eCl@ss	27-27-26-03


Approval

Approval	ATEX
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Classification

Standards	EN ISO 13849-1
B10d 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

Permanent light	EX-AZM 161
Standards	EN 60079-0, EN 60079-31, EN 60947-5-1, BG-GS-ET-19
Compliance with the Directives (Y/N) 	Yes
Number of actuating directions	3
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	470

Mechanical data

Actuating play in direction of actuation	5.5
Design of electrical connection	Screw connection
Cable cross-section of the cable glands	
- Min. Cable cross-section of the cable glands	Ø 5
- Max. Cable cross-section of the cable glands	Ø 10
Cable section	
- Min. Cable section	1 x 0,75
- Max. Cable section	1 x 1.5
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	5
Positive break force	20
positive break travel	10
Clamping force F	2000 N
Impact energy	1 J
Max. Actuating speed	1
Actuating frequency	max. 1000 / h

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-10
- Max. environmental temperature	+50
Protection class	IP67

Electrical data

Design of control element	Normally open contact (NO), Opener (NC)
Switching principle	Creep circuit element
Number of auxiliary contacts	2
Number of safety contacts	4
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}	5 A
Utilisation category	AC-15: 230 V / 4 A, DC-13: 24 V / 2,5 A
Max. fuse rating	6 A gG D-fuse

ATEX

EX-marking	EX II 3D Ex tc IIIC T80°C Dc X
Explosion protection categories for gases	None
Explosion protection Zones for gases	None
Explosion protected category for dusts	3D
Explosion protection Zones for dusts	22

Dimensions

Dimensions of the sensor	
- Width of sensor	130
- Height of sensor	114
- Length of sensor	30

notice

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

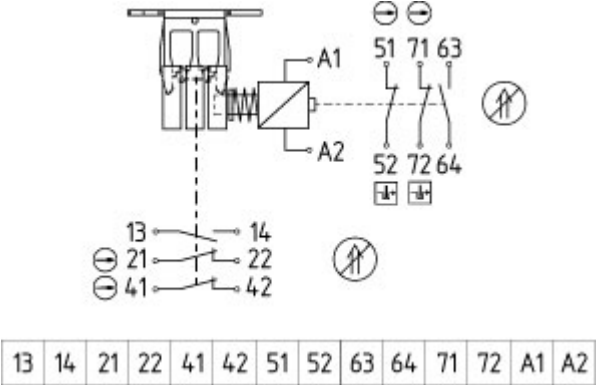
Included in delivery

Actuators must be ordered separately.	
Including Ex-certified screwed cable gland and screw plug	

Keywords

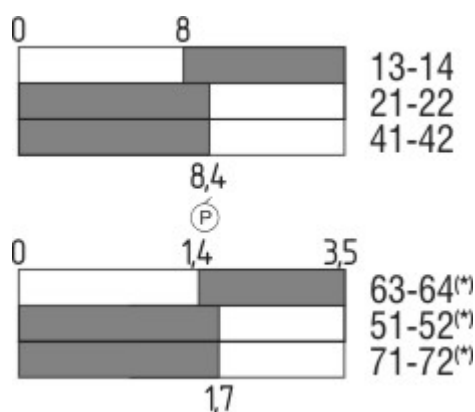
Keywords	Ex, EEx, ATEX, Ex AZM161, Ex AZM161, AZM 161 Ex, AZM161ex, AZM161ex, ATEX AZM161
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Diagram



- 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 code

EX-AZM 161 (1)-12/12-(2)K(3)-024-3D

(1)

SK

Screw connection

CC

Cage clamps

(2)

without

Latching force 5 N

R

Latching force 30 N

(3)

without

Power to unlock

A

Power to lock

Documents

Operating instructions and Declaration of conformity (it) 529 kB, 17.10.2017

Code: mrl_ex-azm161_it

Operating instructions and Declaration of conformity (nl) 531 kB, 07.08.2018

Code: mrl_ex-azm161_nl

Operating instructions and Declaration of conformity (es) 535 kB, 17.10.2017

Code: mrl_ex-azm161_es

Operating instructions and Declaration of conformity (de) 507 kB, 29.09.2017

Code: mrl_ex-azm161_de

Operating instructions and Declaration of conformity (en) 519 kB, 29.09.2017

Code: mrl_ex-azm161_en

Operating instructions and Declaration of conformity (pl) 565 kB, 01.02.2018

Code: mrl_ex-azm161_pl

Operating instructions and Declaration of conformity (da) 470 kB, 26.03.2013

Code: mrl_ex-azm161_da

Operating instructions and Declaration of conformity (pt) 538 kB, 17.10.2017

Code: mrl_ex-azm161_pt

Operating instructions and Declaration of conformity (jp) 577 kB, 05.06.2013

Code: mrl_ex-azm161_jp

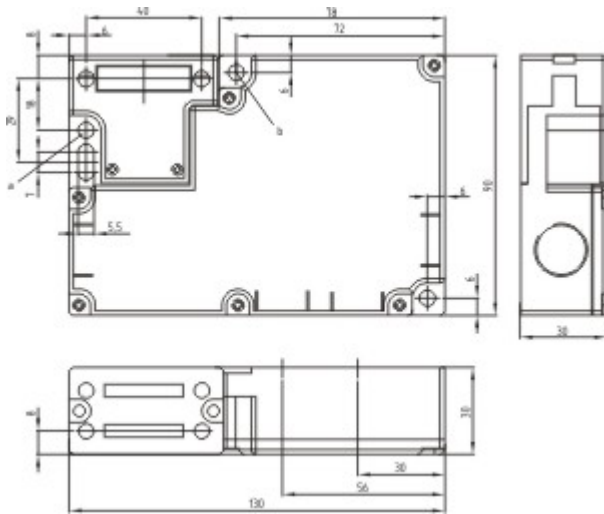
Operating instructions and Declaration of conformity (fr) 512 kB, 13.10.2017

Code: mrl_ex-azm161_fr

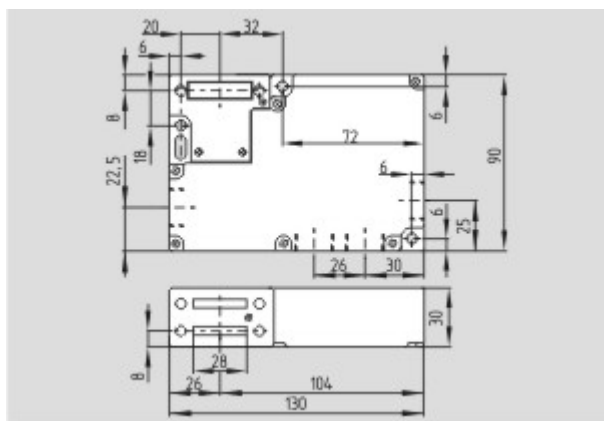
Brochure (de) 7 MB, 19.10.2016

Code: b_atep01_de

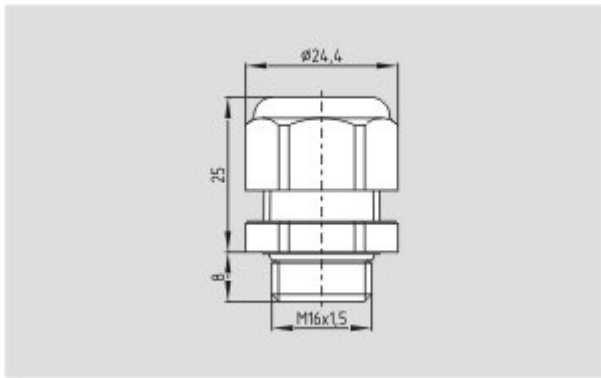
Images



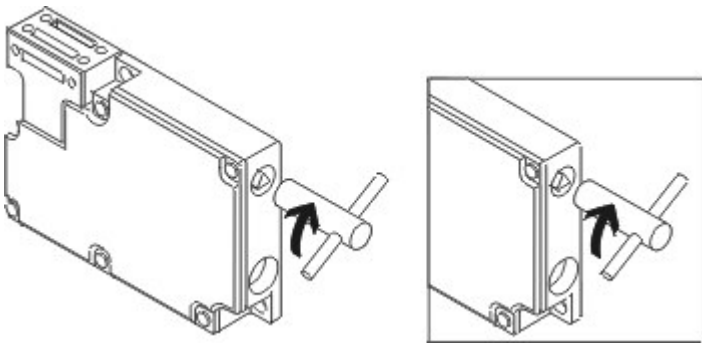
Dimensional drawing (basic component)



Dimensional drawing (basic component)



Dimensional drawing (miscellaneous)



Operating principle

System components

Actuator

101145117 - AZM 161-B1



101144416 - AZM 161-B1E



101175431 - AZM 161-B1F



101144420 - AZM 161-B6

• For very small actuating radii





101178199 - AZM 161-B1-2024



101173089 - AZM 161-B1-2053 WITH BALL LATCH



101176642 - AZM 161-B1-2177 WITH CENTERING GUIDE



101174113 - AZM 161-B6-2177 WITH CENTERING GUIDE

• For very small actuating radii



101171125 - AZM 161-B1S



101171859 - AZM 161-B1ES



101170375 - AZM 161-B6S

Accessories

101150376 - Mounting set MS AZM 161 P



101149213 - Mounting set MS AZM 161 R/P



101145379 - SLOT SEALING PLUGS AZM 161



- To cover unused actuator slots
- For protection against the ingress of coarse dirt
- Simple clip-in fitting



101100887 - TRIANGULAR KEY TK-M5

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

Mounting accessories



101135340 - TAMPERPROOF SCREWS M 5 x 20

- To mount the actuator
- Higher protection against tampering with interlock
- Protects against unauthorised removal of actuator
- Various lengths available



101135339 - TAMPERPROOF SCREWS M 5 x 16

- To mount the actuator
- Higher protection against tampering with interlock
- Protects against unauthorised removal of actuator
- Various lengths available