


## Datasheet - EX-AZM 161SK-12/12KA-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-12/12KA-024-3D
Article number	EX-AZM 161SK-12/12KA-024-3D
EAN code	
eCl@ss	27-27-26-03


### Approval

Approval	ATEX
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### Classification

Standards	EN ISO 13849-1
B10d Opener (NC)	2.000.000
Mission time	20 Years
notice	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{cp} \times 3600 \text{ s/h}}{t_{cycle}}$

### Global Properties

Product name	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 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	470 g

## Mechanical data

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Actuating play in direction of actuation	5.5 mm
Design of electrical connection	Screw connection
Cable cross-section of the cable glands	
- Min. Cable cross-section of the cable glands	Ø 5 mm
- Max. Cable cross-section of the cable glands	Ø 10 mm
Cable section	
- Min. Cable section	1 x 0,75 mm <sup>2</sup>
- Max. Cable section	1 x 1.5 mm <sup>2</sup>
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 N
Positive break force	20 N
positive break travel	10 mm
Clamping force F	2000 N
Impact energy	1 J
Max. Actuating speed	1 m/s
Actuating frequency	max. 1000 / h

## Ambient conditions

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

## 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	No
Power to lock	Yes
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>	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 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 mm
- Height of sensor	114 mm
- Length of sensor	30 mm

notice

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

Included in delivery

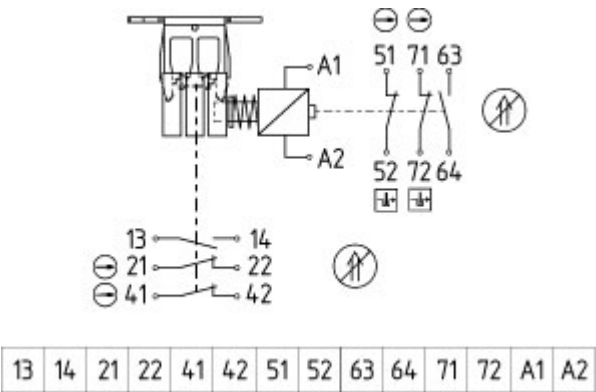
Actuators must be ordered separately.

Including Ex-certified screwed cable gland and screw plug

Keywords

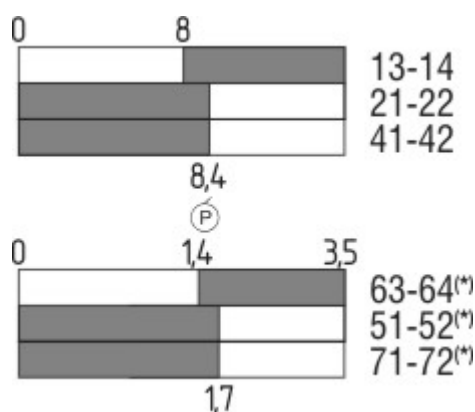
Keywords	Ex, EEx, ATEX, Ex AZM161, Ex AZM161, AZM 161 Ex, AZM161ex, AZM161ex, ATEX AZM161
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Diagram



- 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) 465 kB, 26.03.2013

Code: mrl\_ex-azm161\_it

**Operating instructions and Declaration of conformity** (nl) 536 kB, 24.09.2012

Code: mrl\_ex-azm161\_nl

**Operating instructions and Declaration of conformity** (es) 468 kB, 05.06.2013

Code: mrl\_ex-azm161\_es

**Operating instructions and Declaration of conformity** (de) 467 kB, 26.02.2013

Code: mrl\_ex-azm161\_de

**Operating instructions and Declaration of conformity** (en) 473 kB, 26.02.2013

Code: mrl\_ex-azm161\_en

**Operating instructions and Declaration of conformity** (pl) 522 kB, 16.07.2015

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)** 483 kB, 23.10.2013

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)** 474 kB, 05.06.2013

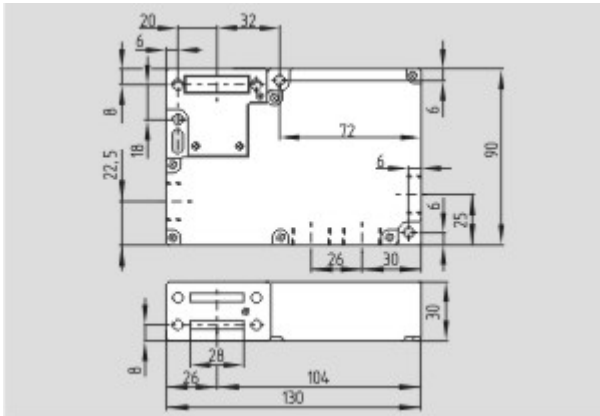
Code: mrl\_ex-azm161\_fr

**Brochure (de)** 7 MB, 25.02.2011

Code: b\_atep01

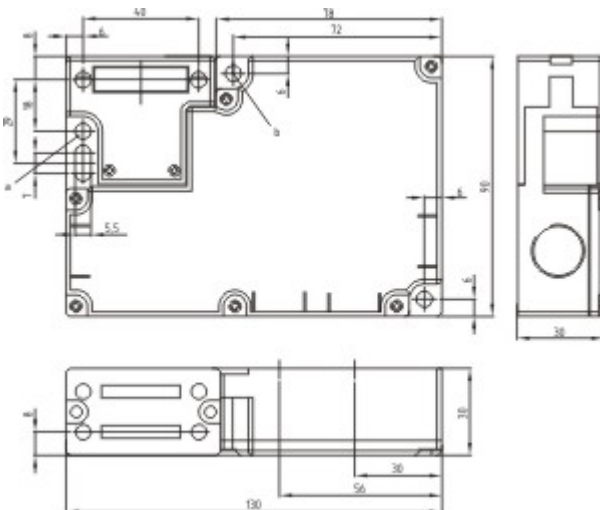
## Images

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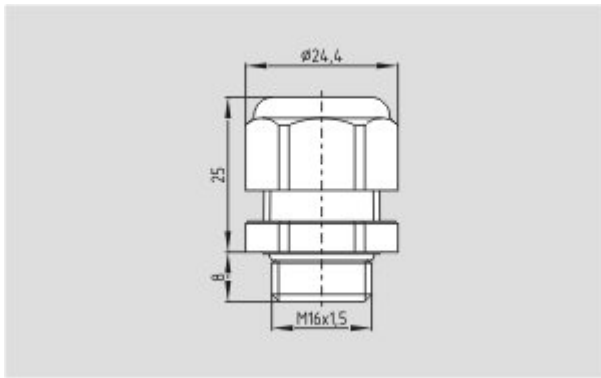
Dimensional drawing (basic component)

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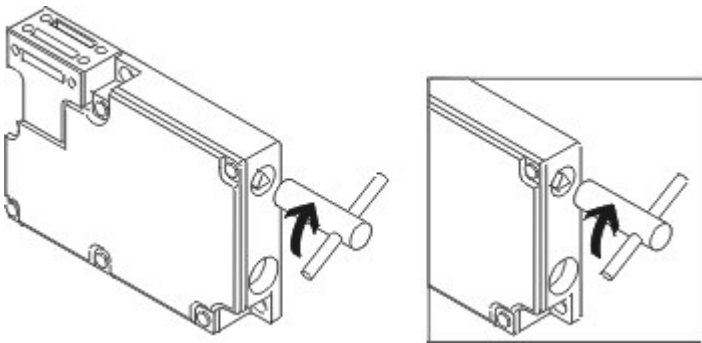


Dimensional drawing (basic component)

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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**

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## Accessories

**101150376 - Mounting set MS AZM 161 P**



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#### **101149213 - Mounting set MS AZM 161 R/P**



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#### **101145379 - SLOT SEALING PLUGS AZM 161**

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



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#### **101100887 - TRIANGULAR KEY TK-M5**

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

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### **Mounting accessories**



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#### **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



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#### **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