


## 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 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

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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

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Ambient temperature	
- Min. environmental temperature	-10
- Max. environmental temperature	+50
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
Number of safety contacts	4
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-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

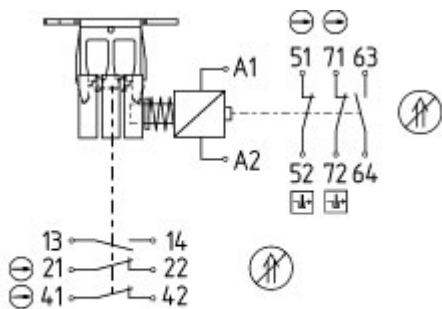
## Included in delivery

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

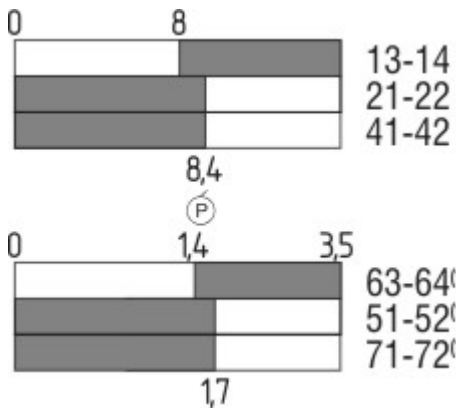


13	14	21	22	41	42	51	52	63	64	71	72	A1	A2
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### Note Diagram

- 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
-  Break point
-  Positive opening sequence/- angle

**VS** adjustable range of NO contact

**VÖ** adjustable range of NC contact

**N** after travel

### Ordering code

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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

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**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

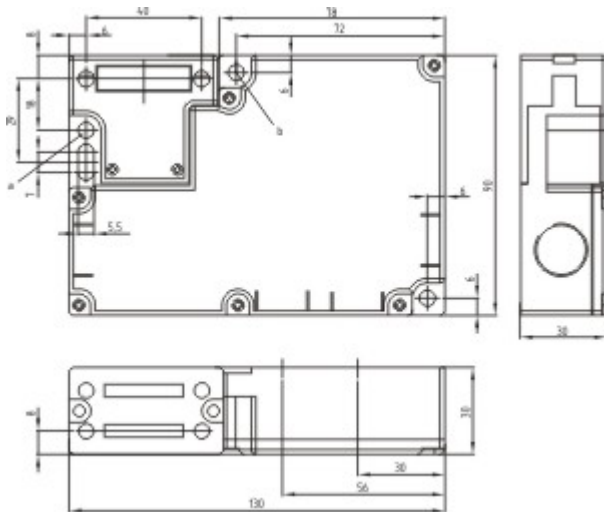
Code: mrl\_ex-azm161\_fr

**Brochure (de)** 7 MB, 19.10.2016

Code: b\_atep01\_de

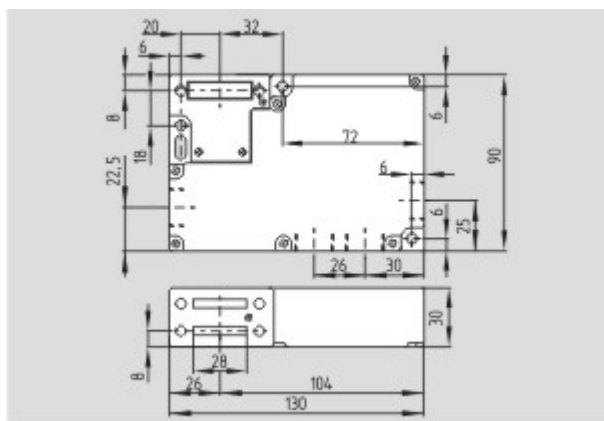
## Images

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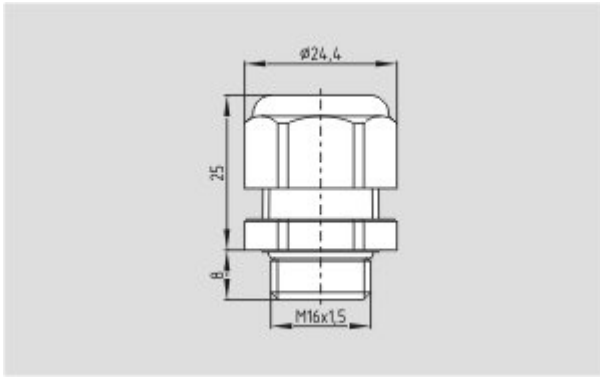
Dimensional drawing (basic component)

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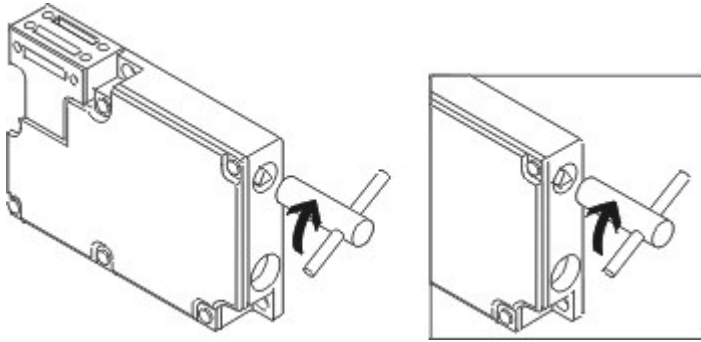


Dimensional drawing (basic component)

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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 course 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