


## Datasheet - EX-AZ 16-03ZVRK-3D

Safety switch with separate actuator / EX-AZ 16



- Thermoplastic enclosure
- Double-insulated 
- Multiple coding
- 52 mm x 90 mm x 30 mm
- Large wiring compartment
- High level of contact reliability with low voltages and currents
- Insensitive to soiling
- Slotted holes for adjustment, circular holes for location
- Long life
- Ex certified
- 3 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-AZ 16-03ZVRK-3D
Article number	101193631
EAN Code	4030661356457
eCl@ss	27-27-26-02

### Approval

Approval	ATEX
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### Classification

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

### Global Properties

Permanent light	EX-AZ 16
Standards	EN 60079-0, EN 60079-31, EN 60947-5-1, BG-GS-ET-15
Compliance with the Directives (Y/N) 	Yes
Materials	

- Material of the housings	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
- Material of the contacts	Silver
Housing coating	None
Weight	195

## Mechanical data

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Design of electrical connection	Screw connection
Cable cross-section of the cable glands	
- Min. Cable cross-section of the cable glands	Ø 6
- Max. Cable cross-section of the cable glands	Ø 12
Cable section	
- Min. Cable section	0,75
- Max. Cable section	2.5
Mechanical life	> 1 million operations operations
notice	All indications about the cable section are including the conductor ferrules.
higher Latching force (Y/N)	Yes
Latching force	30
With ejection force (Y/N)	No
Positive break force	10
positive break travel	8
Max. Actuating speed	1

## Ambient conditions

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Ambient temperature	
- Min. environmental temperature	-20
- Max. environmental temperature	+70
Protection class	IP67 to IEC/EN 60529

## Electrical data

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Design of control element	Opener (NC)
Switching principle	Creep circuit element
Number of auxiliary contacts	0
Number of safety contacts	3
Rated impulse withstand voltage $U_{imp}$	6 kV
Rated insulation voltage $U_i$	500 V
Thermal test current $I_{the}$	2.5 A
Utilisation category	AC-15: 230 V / 2,5 A, DC-13: 24 V / 2,5 A
Max. fuse rating	4 A gG D-fuse

## ATEX

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EX-marking	EX II 3D Ex tc IIIC T90°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

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Dimensions of the sensor

- Width of sensor	52
- Height of sensor	90
- Length of sensor	30

**notice**

Individual coding available on request

**Included in delivery**

Actuators must be ordered separately.

Including Ex-certified screwed cable gland and screw plug

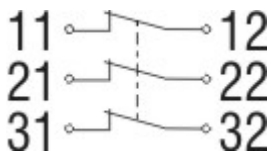
Slot sealing plugs

**Keywords**

Keywords

Ex, EEx, ATEX, Ex AZ 16, Ex AZ16, AZ 16 Ex, AZ16 ex, AZ16ex, ATEX AZ16

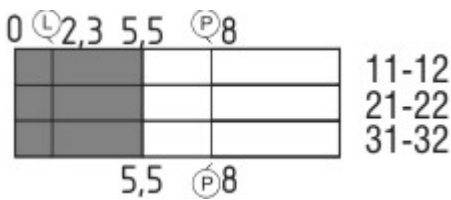
**Diagram**



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

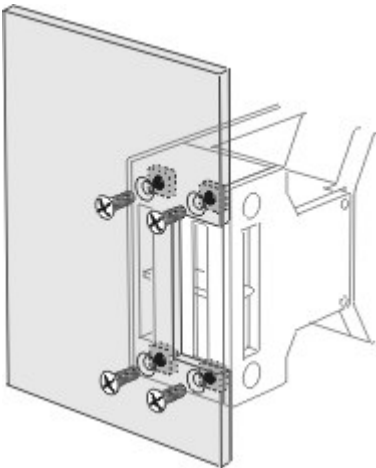
**Ordering suffix**

The applicable ordering suffix is added at the end of the part number of the safety switch.

Order example: EX-AZ 16-03ZVRK-3D-**2254**

...-**2254**

Latching force 5 N



...-**1762**

Versions with M5 nuts  
For front mounting of safety switch, e.g. on sheet-steel covers  
Cannot be retrofitted

...-**1637**

0,3 µm gold-plated contacts

## Ordering code

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EX-AZ 16-(1)ZV(2)K-(3)-3D

(1)	
03	3 Opener (NC)
12	1 Normally open contact (NO) / 2 Opener (NC)
(2)	
without	Ejection force
R	Latching force 30 N
(3)	
2254	Latching force 5 N
1762	Front mounting
1637	gold-plated contacts

## Documents

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**Operating instructions and Declaration of conformity** (es) 256 kB, 21.11.2016

Code: mrl\_ex-az16\_es

**Operating instructions and Declaration of conformity** (de) 282 kB, 26.10.2016

Code: mrl\_ex-az16\_de

**Operating instructions and Declaration of conformity** (pl) 292 kB, 21.11.2016

Code: mrl\_ex-az16\_pl

**Operating instructions and Declaration of conformity** (da) 253 kB, 31.08.2015

Code: mrl\_ex-az16\_da

**Operating instructions and Declaration of conformity** (nl) 254 kB, 12.12.2016

Code: mrl\_ex-az16\_nl

**Operating instructions and Declaration of conformity** (pt) 259 kB, 16.01.2017

Code: mrl\_ex-az16\_pt

**Operating instructions and Declaration of conformity** (fr) 259 kB, 16.01.2017

Code: mrl\_ex-az16\_fr

**Operating instructions and Declaration of conformity** (it) 237 kB, 21.11.2016

Code: mrl\_ex-az16\_it

**Operating instructions and Declaration of conformity** (jp) 550 kB, 18.08.2017

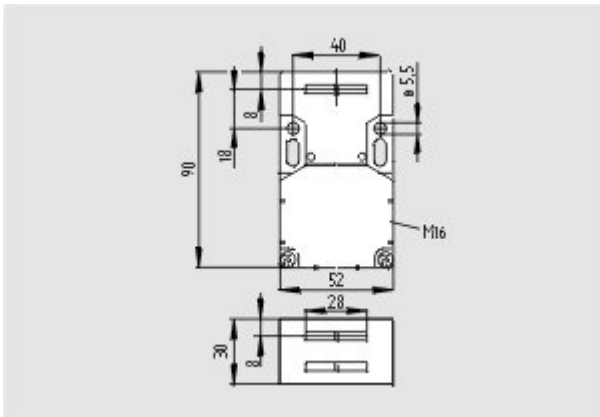
Code: mrl\_ex-az16\_jp

**Operating instructions and Declaration of conformity** (en) 297 kB, 26.10.2016

Code: mrl\_ex-az16\_en

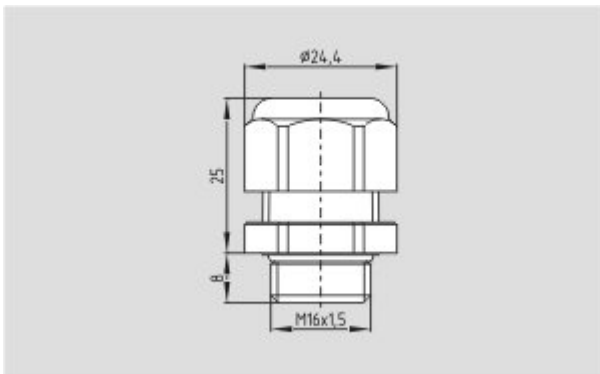
## Images

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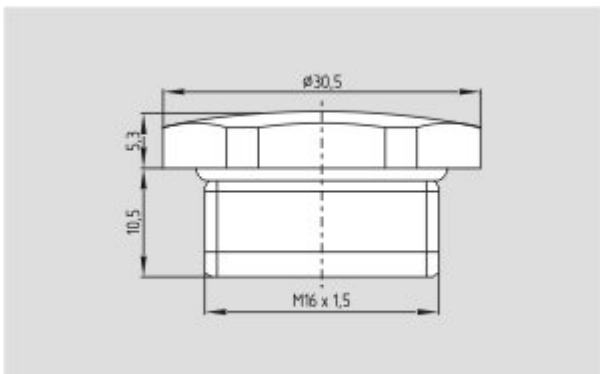
Dimensional drawing (basic component)

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Dimensional drawing (miscellaneous)

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Dimensional drawing (miscellaneous)

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## System components

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### Mounting accessories



#### tamperproof screws

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

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The data and values have been checked thoroughly. Technical modifications and errors excepted.

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