

Datasheet - EX-AZ 16-12ZVRK-3D

Safety switch with separate actuator / EX-AZ 16

 Preferred typ

- 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 16-12ZVRK-3D
Article number	101185377
EAN code	4030661324883
eCl@ss	27-27-26-02

Approval


Approval	ATEX
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Classification

Standards	EN ISO 13849-1
B _{10d} Opener (NC)	2.000.000
B _{10d} Normally open contact (NO)	1.000.000
- notice	at 10% I _e and ohmic load
Mission time	20 Years
notice	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$

Global Properties

Product name	EX-AZ 16
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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	145 g

Mechanical data

Design of electrical connection	Screw connection
Cable cross-section of the cable glands	
- Min. Cable cross-section of the cable glands	Ø 6 mm
- Max. Cable cross-section of the cable glands	Ø 12 mm
Cable section	
- Min. Cable section	0,75 mm ²
- Max. Cable section	2.5 mm ²
Mechanical life	> 1 million operations
notice	All indications about the cable section are including the conductor ferrules.
higher Latching force (Y/N)	Yes
Latching force	30 N
With ejection force (Y/N)	No
Positive break force	10 N
positive break travel	8 mm
Max. Actuating speed	1 m/s

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-20 °C
- Max. environmental temperature	+70 °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	1 piece
Number of safety contacts	2 piece
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

	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

Dimensions of the sensor

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

notice

Individual coding available on request

Included in delivery

Actuators must be ordered separately.

Including Ex-certified screwed cable gland and screw plug

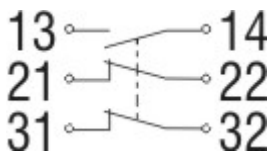
Slot sealing plugs

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

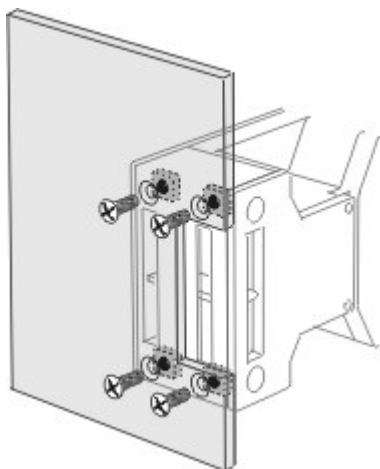
Ordering suffix

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

Order example: EX-AZ 16-12ZVRK-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

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

Operating instructions and Declaration of conformity (es) 238 kB, 21.02.2013

Code: mrl_ex-az16_es

Operating instructions and Declaration of conformity (de) 229 kB, 18.12.2012

Code: mrl_ex-az16_de

Operating instructions and Declaration of conformity (pl) 292 kB, 31.08.2015

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) 237 kB, 21.02.2013

Code: mrl_ex-az16_nl

Operating instructions and Declaration of conformity (pt) 245 kB, 23.10.2013

Code: mrl_ex-az16_pt

Operating instructions and Declaration of conformity (fr) 240 kB, 21.02.2013

Code: mrl_ex-az16_fr

Operating instructions and Declaration of conformity (it) 232 kB, 21.02.2013

Code: mrl_ex-az16_it

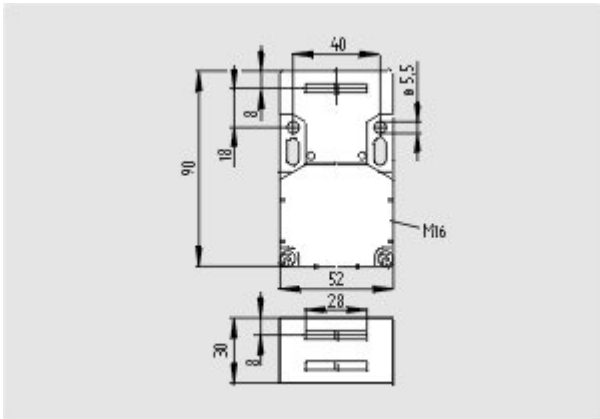
Operating instructions and Declaration of conformity (jp) 349 kB, 21.02.2013

Code: mrl_ex-az16_jp

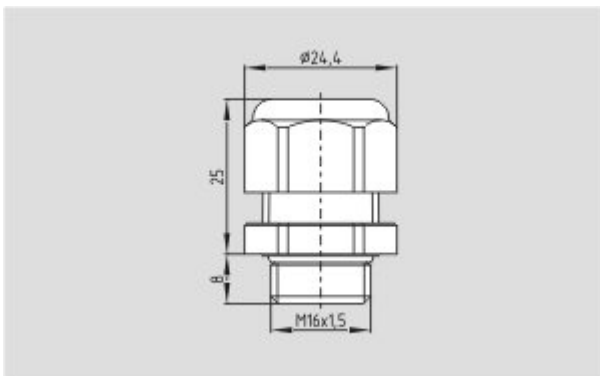
Operating instructions and Declaration of conformity (en) 241 kB, 18.12.2012

Code: mrl_ex-az16_en

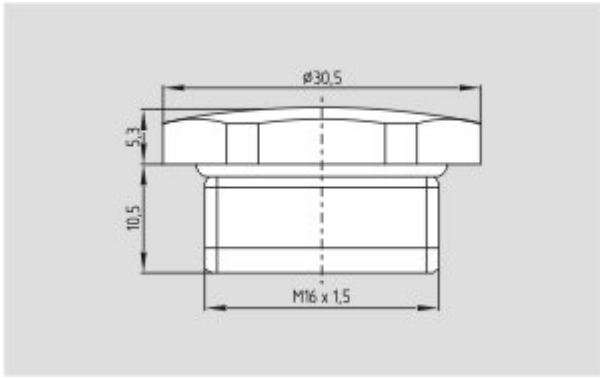
Images



Dimensional drawing (basic component)



Dimensional drawing (miscellaneous)



Dimensional drawing (miscellaneous)

System components

Actuator

101083036 - AZ 15/16-B1



101108278 - AZ 15/16-B1-2024 WITH SLOT SEALING PLUG

- For protection against the ingress of course dirt



101111081 - AZ 15/16-B1-2053 WITH BALL LATCH

- For interlocking of light to medium-weight guards



101126794 - AZ 15/16-B1-2177 WITH CENTERING GUIDE

- For interlocking of light, unguided guards



101137408 - AZ 15/16-B1-2245

- Damps vibration on guard device



101095558 - AZ 15/16-B2

- For very small actuating radii in line with the plane of the actuator



101095550 - AZ 15/16-B3

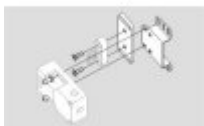
- For very small actuating radii at 90° to the plane of the actuator

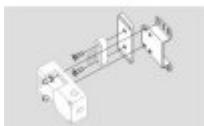


101137434 - AZ 15/16-B6

- For very small actuating radii in line with or at 90° to the plane of the actuator



Accessories**101149214 - Mounting set MS AZ 15/16 R/P**

101150373 - Mounting set MS AZ 15/16 P

101089116 - Slot sealing plugs AZ 15/16-1476

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



Mounting accessories**tamperproof screws**

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

