13.02.2019

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# Datasheet - EX-AZ 16-12ZVK-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
Article number
EAN Code
eCl@ss

#### Approval

Approval

ATEX

101188403 4030661341767 27-27-26-02

EX-AZ 16-12ZVK-3D

Classification

Standards	EN ISO 13849-1
B10d Normally-closed contact (NC)	2.000.000
B10d Normally open contact (NO)	1.000.000
- notice	at 10% le and ohmic load
Mission time	20 Years
notice	$MTTF_{d} = \frac{B_{10d}}{0.1 \times n_{op}}$

 $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{oycle}}$ 

# **Global Properties**

Permanent light Standards

Compliance with the Directives (Y/N) C $\epsilon$	Yes
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
- Material of the contacts	Silver
Housing coating	None
Weight	140

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

# **Ambient conditions**

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

### **Electrical data**

Normally open contact (NO), Opener (NC)
Creep circuit element
1
2
6 kV
500 V
2.5 A
AC-15: 230 V / 2,5 A, DC-13: 24 V / 2,5 A
4 A gG D-fuse

# ATEX

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

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.

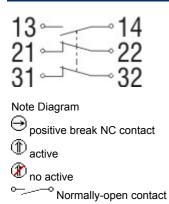
Including Ex-certified screwed cable gland and screw plug Slot sealing plugs

#### **Keywords**

Keywords

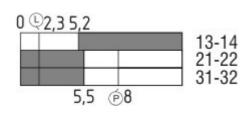
Ex, EEx, ATEX, Ex AZ 16, Ex AZ16, AZ 16 Ex, AZ16 ex, AZ16ex, ATEX AZ16

# Diagram



o------- Normally-closed contact

#### Switch travel diagram



Notes Switch travel diagram

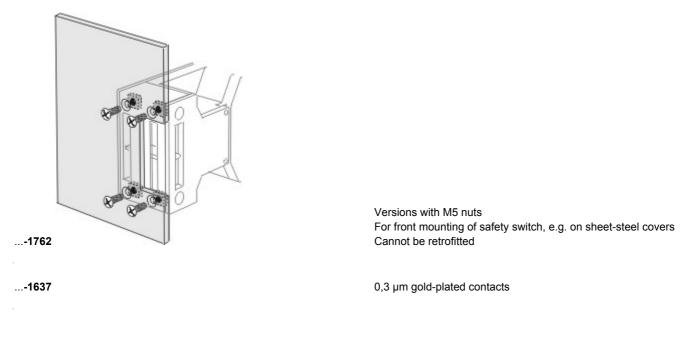
Contact closed

C 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 16-12ZVK-3D**-1762** 



#### 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) 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

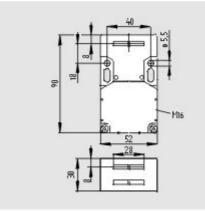
Code: mrl\_ex-az16\_fr

**Operating instructions and Declaration of conformity** (it) 237 kB, 21.11.2016 Code: mrl\_ex-az16\_it

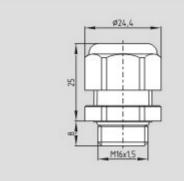
**Operating instructions and Declaration of conformity** (jp) 550 kB, 18.08.2017 Code: mrl\_ex-az16\_jp

**Operating instructions and Declaration of conformity** (en) 297 kB, 26.10.2016 Code: mrl\_ex-az16\_en

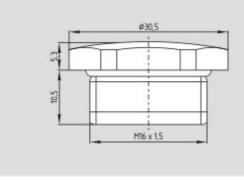
#### Images



Dimensional drawing (basic component)



Dimensional drawing (miscellaneous)



Dimensional drawing (miscellaneous)

## **Mounting accessories**



#### tamperproof screws

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

K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal The data and values have been checked throroughly. Technical modifications and errors excepted. Generiert am 13.02.2019 - 14:39:31h Kasbase 3.3.0.F.64I