

## Datasheet - EX-AZ 415-02/20ZPK-3D

Safety switch with separate actuator / EX-AZ 415



- Adjustable ball latch to 500 N
- 2 switches with different actuating functions in one enclosure
- 103.6 mm x 84.6 mm x 103.6 mm
- 2 cable entries M 20 x 1.5
- Spring-loaded actuators
- High level of contact reliability with low voltages and currents
- Ex certified
- Metal enclosure
- Long life

(Minor differences between the printed image and the original product may exist!)

### Ordering details

Product type description	EX-AZ 415-02/20ZPK-3D
Article number	101196807
EAN Code	4030661365039
eCl@ss	27-27-26-02

### Approval

Approval




EEX

### 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% Ie 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

Permanent light	EX-AZ 415
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Standards	Ex tD A22 IP67 T60°C X, EN 60947-5-1, EN 61241-1, BG-GS-ET-15
Compliance with the Directives (Y/N) 	Yes
Materials	
- Material of the housings	light alloy die-casting
- Material of the contacts	Silver
Housing coating	painted
Weight	561

## 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	1.5
Mechanical life	1.000.000 operations
notice	All indications about the cable section are including the conductor ferrules.
higher Latching force (Y/N)	Yes
Latching force	30 ... 500
Positive break force	min. 31 N
positive break travel	3.8
Max. Actuating speed	1

## Ambient conditions

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Ambient temperature	
- Min. environmental temperature	-10
- Max. environmental temperature	+50
Protection class	IP67 to IEC/EN 60529

## 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	2
Rated impulse withstand voltage $U_{imp}$	4 kV
Rated insulation voltage $U_i$	250 V
Thermal test current $I_{the}$	6 A
Utilisation category	AC-15: 230 V / 4 A, DC-13: 24 V / 4 A
Max. fuse rating	6 A gG D-fuse

## ATEX

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Explosion protection categories for gases	None
Explosion protection Zones for gases	None
Explosion protected category for dusts	ATEX dust ex-protection, Cat. 3
Explosion protection Zones for dusts	22

## Dimensions

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Dimensions of the sensor

- Width of sensor	103.6
- Height of sensor	84.6
- Length of sensor	46.5

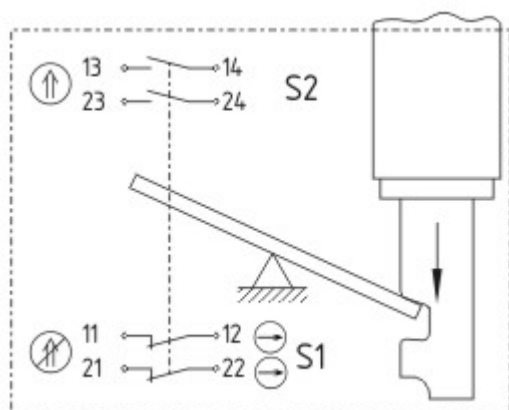
### Included in delivery

Actuators must be ordered separately.  
Including Ex-certified screwed cable gland and screw plug






### Keywords

Keywords Ex, EEx, ATEX, Ex AZ 415, Ex AZ415, AZ 415 Ex, AZ415 ex, AZ415ex, ATEX AZ415

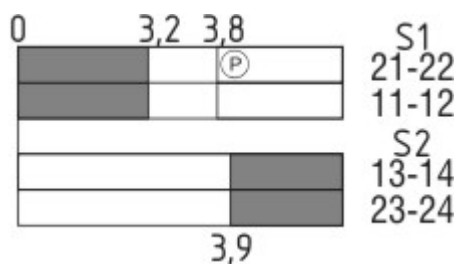
### Diagram








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

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

Order example: EX-AZ 415-02/20ZPK-3D-**1637**

...-**1637** 0,3 µm gold-plated contacts

## Ordering code

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EX-AZ 415-(1)ZPK-(2)-3D

(1)

11/11 1 Normally open contact (NO), 1 Opener (NC) / 1 Normally open contact (NO), 1 Opener (NC)

02/11 2 Opener (NC) / 1 Normally open contact (NO), 1 Opener (NC)

02/20 2 Opener (NC) / 2 Normally open contact (NO)

02/02 2 Opener (NC) / 2 Opener (NC)

(2)

1637 gold-plated contacts

## Documents

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**Operating instructions and Declaration of conformity** (it) 290 kB, 13.10.2017

Code: mrl\_ex-az415\_it

**Operating instructions and Declaration of conformity** (pl) 311 kB, 17.02.2014

Code: mrl\_ex-az415\_pl

**Operating instructions and Declaration of conformity** (pl) 333 kB, 16.02.2018

Code: mrl\_ex-az415\_pl

**Operating instructions and Declaration of conformity** (en) 297 kB, 28.09.2017

Code: mrl\_ex-az415\_en

**Operating instructions and Declaration of conformity** (nl) 319 kB, 07.08.2018

Code: mrl\_ex-az415\_nl

**Operating instructions and Declaration of conformity** (fr) 296 kB, 13.10.2017

Code: mrl\_ex-az415\_fr

**Operating instructions and Declaration of conformity** (es) 323 kB, 17.10.2017

Code: mrl\_ex-az415\_es

**Operating instructions and Declaration of conformity** (sv) 282 kB, 17.02.2014

Code: mrl\_ex-az415\_sv

**Operating instructions and Declaration of conformity** (de) 274 kB, 28.09.2017

Code: mrl\_ex-az415\_de

**Operating instructions and Declaration of conformity** (pt) 287 kB, 17.02.2014

Code: mrl\_ex-az415\_pt

**Operating instructions and Declaration of conformity** (pt) 265 kB, 02.01.2017

