

## Datasheet - AZ 16-12ZVK

Safety switch with separate actuator / AZ 16

☒ Preferred typ



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

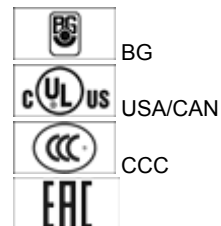
- Thermoplastic enclosure
- Double-insulated
- Large wiring compartment
- 52 mm x 90 mm x 30 mm
- Multiple coding
- Long life
- High level of contact reliability with low voltages and currents
- Insensitive to soiling
- Slotted holes for adjustment, circular holes for location
- 3 cable entries M 16 x 1.5

### Ordering details

Product type description	AZ 16-12ZVK
Article number	101152725
EAN code	4030661166247
eCl@ss	27-27-26-02

### Approval


Approval



### Classification

Standards	EN ISO 13849-1
B <sub>10d</sub> Normally-closed contact (NC)	2.000.000
B <sub>10d</sub> Normally open contact (NO)	1.000.000
- notice	at 10% I <sub>e</sub> 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	AZ 16
Standards	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	120 g

Mechanical data

Design of electrical connection	Screw connection
Cable section	
- Min. Cable section	0,75 mm²
- Max. Cable section	2.5 mm²
Mechanical life	> 1.000.000 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	20 N
positive break travel	8 mm
Actuating speed	max. 2 m/s

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-30 °C
- Max. environmental temperature	+80 °C
Protection class	IP67 to IEC/EN 60529

Electrical data

Design of control element	Normally open contact (NO), Opener (NC)
Switching principle	Snap action with self-cleaning contact
Number of auxiliary contacts	1 piece
Number of safety contacts	2 piece
Rated impulse withstand voltage U <sub>imp</sub>	4 kV
Rated insulation voltage U <sub>i</sub>	500 V
Thermal test current I <sub>the</sub>	10 A
Utilisation category	AC-15: 230 V / 4 A, DC-13: 24 V / 4 A
Max. fuse rating	6 A gG D-fuse

ATEX

Explosion protection categories for gases	None
Explosion protected category for dusts	None

Dimensions

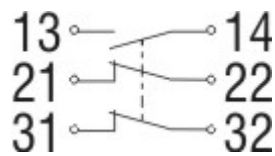
Dimensions of the sensor	
- Width of sensor	52 mm

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

### Included in delivery

Actuators must be ordered separately.

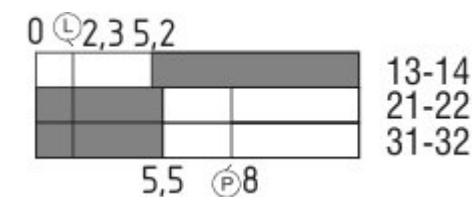
### Diagram



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: AZ 16-12ZVK-**M20**

...-**M20**

cable entries M20

### Ordering code

AZ 16-(1)ZV(2)K-(3)-(4)-(5)

(1)

without

02

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

2 Opener (NC)

<b>03</b>	3 Opener (NC)
<b>12</b>	Normally open contact (NO) 1 / Opener (NC) 2
<b>(2)</b>	
<i>without</i>	Ejection force
<b>R</b>	Latching force 30 N
<b>(3)</b>	
<b>G24</b>	with LED ( <i>only available for version with one NO and one NC contact.</i> )
<b>(4)</b>	
<i>without</i>	Cable entry M16
<b>M20</b>	Cable entry M20
<b>ST</b>	Connector M12, 4-pole, bottom
<b>STL</b>	Connector M12, 4-pole, left
<b>STR</b>	Connector M12, 4-pole, right
<b>(5)</b>	
<b>2254</b>	Latching force 5 N
<b>1762</b>	Front mounting
<b>1637</b>	gold-plated contacts

## Documents

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**Operating instructions and Declaration of conformity** (pt) 433 kB, 25.05.2010

Code: mrl\_az15-16\_pt

**Operating instructions and Declaration of conformity** (pt) 287 kB, 08.07.2016

Code: mrl\_az15-16\_pt

**Operating instructions and Declaration of conformity** (de) 267 kB, 04.03.2016

Code: mrl\_az15-16\_de

**Operating instructions and Declaration of conformity** (fr) 284 kB, 27.04.2016

Code: mrl\_az15-16\_fr

**Operating instructions and Declaration of conformity** (jp) 564 kB, 23.08.2016

Code: mrl\_az15-16\_jp

**Operating instructions and Declaration of conformity** (cs) 400 kB, 11.10.2011

Code: mrl\_az15-16\_cs

**Operating instructions and Declaration of conformity** (es) 281 kB, 09.03.2016

Code: mrl\_az15-16\_es

**Operating instructions and Declaration of conformity** (pl) 313 kB, 15.04.2016

Code: mrl\_az15-16\_pl

**Operating instructions and Declaration of conformity** (sv) 275 kB, 17.06.2015

Code: mrl\_az15-16\_sv

**Operating instructions and Declaration of conformity** (da) 398 kB, 17.11.2011

Code: mrl\_az15-16\_da

**Operating instructions and Declaration of conformity** (en) 283 kB, 04.03.2016

Code: mrl\_az15-16\_en

**Operating instructions and Declaration of conformity** (nl) 266 kB, 02.07.2013

Code: mrl\_az15-16\_nl

**Operating instructions and Declaration of conformity (fi)** 256 kB, 02.07.2015

Code: mrl\_az15-16\_fi

**Operating instructions and Declaration of conformity (it)** 275 kB, 15.04.2016

Code: mrl\_az15-16\_it

**Mounting and wiring instructions** (de, en, fr, it, es, jp) 181 kB, 12.06.2007

Code: m\_mazp01

**BG-test certificate** (en) 135 kB, 18.11.2014

Code: z\_z15p02

**BG-test certificate** (de) 138 kB, 18.11.2014

Code: z\_z15p01

**CCC certification** (cn) 815 kB, 21.07.2016

Code: q\_175p03

**CCC certification** (en) 847 kB, 21.07.2016

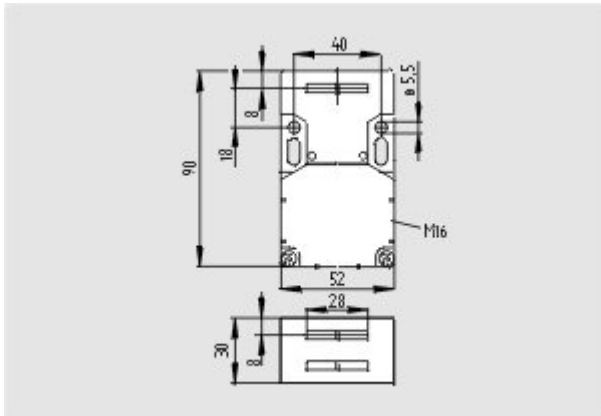
Code: q\_175p02

**EAC certification** (ru) 844 kB, 05.10.2015

Code: q\_6037p17\_ru

## Images

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Dimensional drawing (basic component)

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## System components

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### Actuator

101083036 - AZ 15/16-B1



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101092711 - AZ 15/16-B1-1747



- For play-free interlocking of light guards
- Suitable for retrofitting



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**101093553 - AZ 15/16-B1-1747**

- For play-free interlocking of light guards
- The magnetic latch can be easily fitted in any actuating plane
- Suitable for retrofitting



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**101108276 - AZ 15/16-B1-2024**



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

- For protection against the ingress of coarse dirt

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

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