

## Datasheet - AZ 16-02ZVK-ST

Safety switch with separate actuator / AZ 16



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

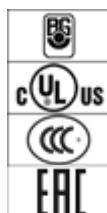
- Thermoplastic enclosure
- Double-insulated  $\square$
- Large wiring compartment
- 52 mm x 90 mm x 30 mm
- Multiple coding
- Long life
- High level of contact reliability with low voltages and currents
- Insensitive to soiling
- Slotted holes for adjustment, circular holes for location
- 2 cable entries M 16 x 1.5
- Connector M12, 4-pole

### Ordering details

Product type description	AZ 16-02ZVK-ST
Article number	101143123
EAN Code	4030661127200
eCl@ss	27-27-26-02

### Approval

Approval




### Classification

Standards	EN ISO 13849-1
B10d Normally-closed contact (NC)	2.000.000
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	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

### Mechanical data

---

Design of electrical connection	Connector M12
Mechanical life	> 1.000.000 operations
higher Latching force (Y/N)	No
With ejection force (Y/N)	Yes
Positive break force	20
positive break travel	8 mm
Actuating speed	2 m/s max.

### 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	Opener (NC)
Switching principle	Snap action with self-cleaning contact
Number of auxiliary contacts	0
Number of safety contacts	2
Rated impulse withstand voltage $U_{imp}$	4 kV
Rated insulation voltage $U_i$	500 V
Thermal test current $I_{the}$	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

---

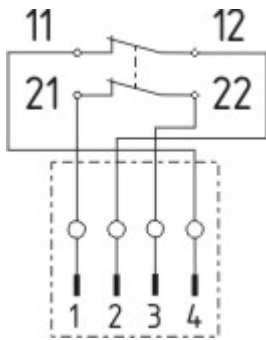
Dimensions of the sensor	
- Width of sensor	52 mm
- Height of sensor	90 mm
- Length of sensor	30 mm

### Included in delivery

---

Actuators must be ordered separately.

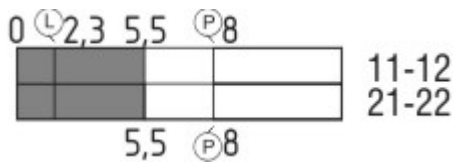
## Diagram



### 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 16-02ZVK-STL

...L	Plug-in connection M12 left
...R	Plug-in connection M12 right
...-M20	cable entries M20

## Ordering code

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

(1)

<i>without</i>	1 Normally open contact (NO) / 1 Opener (NC)
<b>02</b>	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

---

**Operating instructions and Declaration of conformity** (br) 290 kB, 18.12.2018

Code: ACE\_mrl\_az15-16\_br

**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) 314 kB, 02.07.2018

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

**Operating instructions** (en) 141 kB, 16.05.2018

Code: mrl\_ms\_az15-16\_en

**Operating instructions** (de) 140 kB, 16.05.2018

Code: mrl\_ms\_az15-16\_de

**Operating instructions** (es) 137 kB, 05.06.2018

Code: mrl\_ms\_az15-16\_es

**Operating instructions** (pl) 178 kB, 13.08.2018

Code: mrl\_ms\_az15-16\_pl

**Operating instructions** (fr) 137 kB, 05.06.2018

Code: mrl\_ms\_az15-16\_fr

**Operating instructions** (nl) 141 kB, 23.07.2018

Code: mrl\_ms\_az15-16\_nl

**Operating instructions** (pt) 142 kB, 08.08.2018

Code: mrl\_ms\_az15-16\_pt

**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) 3 MB, 18.10.2017

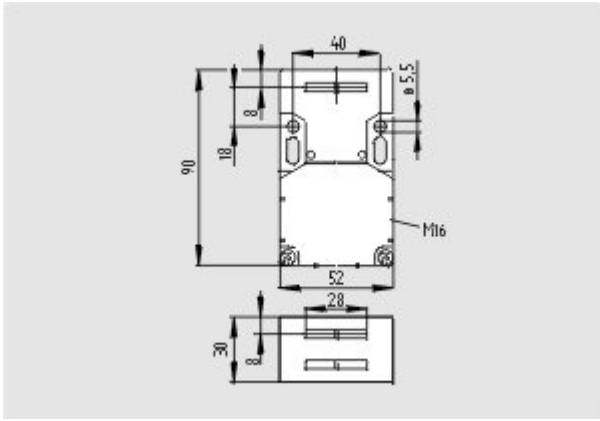
Code: q\_175p03

**CCC certification** (en) 3 MB, 29.08.2017

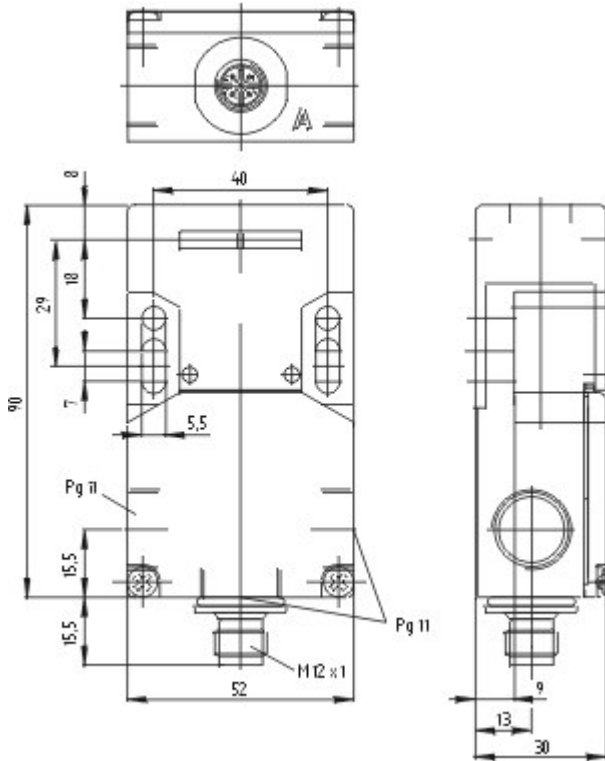
Code: q\_175p02

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

Code: q\_6037p17\_ru



Dimensional drawing (basic component)



Dimensional drawing (basic component)

## System components

### Actuator



101083036 - AZ 15/16-B1



101092711 - AZ 15/16-B1-1747

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

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

---

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



---

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

- For protection against the ingress of course dirt

