

## Datasheet - AZ 16ZVRK-ST

Safety switch with separate actuator / AZ 16



Preferred typ



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

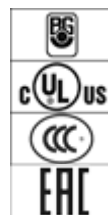
- Thermoplastic enclosure
- Double-insulated
- Large wiring compartment
- 52 mm x 90 mm x 30 mm
- Multiple coding
- Long life
- High level of contact reliability with low voltages and currents
- Insensitive to soiling
- Slotted holes for adjustment, circular holes for location
- 2 cable entries M 16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

### Ordering details

Product type description	AZ 16ZVRK-ST
Article number	101143124
EAN Code	4030661127217
eCl@ss	27-27-26-02

### Approval

Approval




### 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% I <sub>e</sub> and ohmic load
Mission time	20 Years
notice	$MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$

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

## Global Properties

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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	125

## Mechanical data

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Design of electrical connection	Connector M12
Mechanical life	> 1.000.000 operations
higher Latching force (Y/N)	Yes
Latching force	30
With ejection force (Y/N)	No
Positive break force	10
positive break travel	8 mm
Actuating speed	2 m/s max.

## Ambient conditions

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Ambient temperature	
- Min. environmental temperature	-30 °C
- Max. environmental temperature	+80 °C
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	Snap action with self-cleaning contact
Number of auxiliary contacts	1
Number of safety contacts	1
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

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

## Dimensions

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

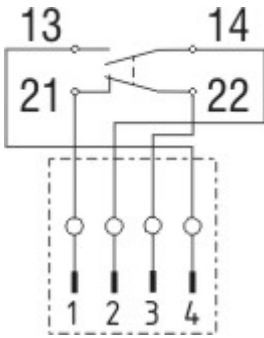
## Included in delivery

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

Actuators must be ordered separately.

## Diagram

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Note Diagram






-  positive break NC contact
-  active
-  no active
-  Normally-open contact
-  Normally-closed contact

## Switch travel diagram

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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: AZ 16ZVRK-ST-**2254**

...- <b>2254</b>	Latching force 5 N
... <b>L</b>	Plug-in connection M12 left
... <b>R</b>	Plug-in connection M12 right
...- <b>M20</b>	cable entries M20

## Ordering code

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

(1)

*without*

02

03

12

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

2 Opener (NC)

3 Opener (NC)

Normally open contact (NO) 1 / Opener (NC) 2

(2)

*without*

R

Ejection force

Latching force 30 N

(3)

G24

with LED (*only available for version with one NO and one NC contact.*)

(4)

*without*

M20

ST

STL

STR

Cable entry M16

Cable entry M20

Connector M12, 4-pole, bottom

Connector M12, 4-pole, left

Connector M12, 4-pole, right

(5)

2254

1762

1637

Latching force 5 N

Front mounting

gold-plated contacts

## Documents

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**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

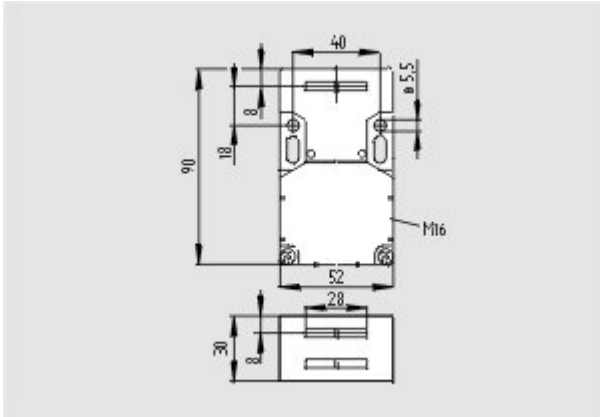
Code: q\_175p02

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

Code: q\_6037p17\_ru

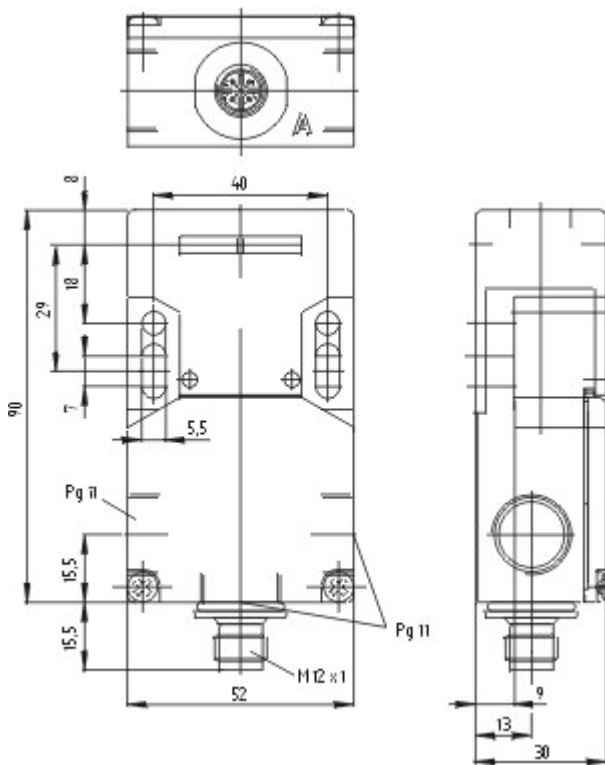
## Images

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Dimensional drawing (basic component)

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Dimensional drawing (basic component)

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## System components

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### Actuator



101083036 - AZ 15/16-B1

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 course dirt

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

Generiert am 13.02.2019 - 14:36:14h Kasbase 3.3.0.F.64I