

## Datasheet - AZ 15 ZVK


Safety switch with separate actuator / AZ 15



Preferred typ



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

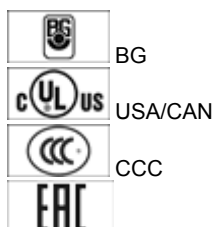
- Thermoplastic enclosure
- Double-insulated 
- Long life
- 52 mm x 75 mm x 30 mm
- Multiple coding
- Large wiring compartment
- High level of contact reliability with low voltages and currents
- Slotted holes for adjustment, circular holes for location
- Insensitive to soiling
- 3 cable entries M 16 x 1.5

### Ordering details

|                          |               |
|--------------------------|---------------|
| Product type description | AZ 15 ZVK     |
| Article number           | 101152787     |
| EAN code                 | 4030661166308 |
| eCl@ss                   | 27-27-26-02   |

### Approval

Approval




### Classification

|                              |                                                                           |
|------------------------------|---------------------------------------------------------------------------|
| Standards                    | EN ISO 13849-1                                                            |
| B <sub>10d</sub> Opener (NC) | 2.000.000                                                                 |
| Mission time notice          | 20 Years                                                                  |
|                              | $MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$                              |
|                              | $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$ |

## Global Properties

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|                                                                                                                        |                                                                   |
|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| Product name                                                                                                           | AZ 15                                                             |
| Standards                                                                                                              | EN 60947-5-1, BG-GS-ET-15                                         |
| Compliance with the Directives (Y/N)  | Yes                                                               |
| suitable for elevators (Y/N)                                                                                           | Yes                                                               |
| Materials                                                                                                              |                                                                   |
| - Material of the housings                                                                                             | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing |
| - Material of the contacts                                                                                             | Silver                                                            |
| Housing coating                                                                                                        | None                                                              |
| Weight                                                                                                                 | 100 g                                                             |

## Mechanical data

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

## 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                 | Opener (NC)                              |
| Switching principle                       | Creep circuit element                    |
| Number of auxiliary contacts              | 0 piece                                  |
| Number of safety contacts                 | 1 piece                                  |
| Rated impulse withstand voltage $U_{imp}$ | 6 kV                                     |
| Rated insulation voltage $U_i$            | 500 V                                    |
| Thermal test current $I_{the}$            | 10 A                                     |
| Utilisation category                      | AC-15: 230 V / 4 A,<br>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 | 75 mm |
| - Length of sensor | 30 mm |

## Included in delivery

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Actuators must be ordered separately.

## Diagram

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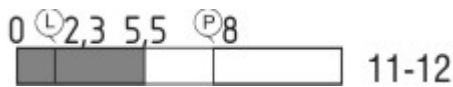


Note Diagram

- 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 15 ZVK-1637

...-1637

0,3 µm gold-plated contacts

Versions with M5 nuts  
 For front mounting of safety switch, e.g. on sheet-steel covers



...-1762

Cannot be retrofitted

## Ordering code

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AZ 15 ZV(1)K-(2)-(3)

(1)

*without*

**R**

Ejection force

Latching force 30 N

(2)

*without*

**ST**

Cable entry M16

Connector M12, 4-pole

(3)

**2254**

Latching force 5 N

**1762**

Front mounting

**1637**

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)** 268 kB, 21.08.2013

Code: mrl\_az15-16\_pt

**Operating instructions and Declaration of conformity (de)** 265 kB, 05.10.2015

Code: mrl\_az15-16\_de

**Operating instructions and Declaration of conformity (fr)** 268 kB, 29.07.2013

Code: mrl\_az15-16\_fr

**Operating instructions and Declaration of conformity (jp)** 374 kB, 10.07.2013

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)** 282 kB, 24.11.2015

Code: mrl\_az15-16\_es

**Operating instructions and Declaration of conformity (pl)** 313 kB, 06.02.2015

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)** 280 kB, 05.10.2015

Code: mrl\_az15-16\_en

**Operating instructions and Declaration of conformity (ro)** 400 kB, 18.11.2011

Code: mrl\_az15-16\_ro

**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)** 276 kB, 04.11.2015

Code: mrl\_az15-16\_it

**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)** 270 kB, 20.01.2016

Code: q\_175p03

**CCC certification (en)** 316 kB, 20.01.2016

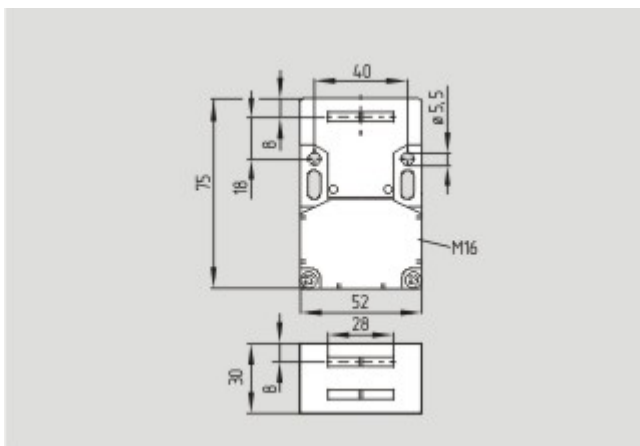
Code: q\_175p02

**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



#### 1137434 - AZ 15/16-B6

- For very small actuating radii in line with or at 90° to the plane of the actuator



#### 1096092 - AZ 15/16-B3-1747

- For very small actuating radii at 90° to the plane of the actuator
- Suitable for retrofitting
- For play-free interlocking of light guards



#### 101096090 - AZ 15/16-B3-1747 WITH MAGNETIC LATCH

- For very small actuating radii at 90° to the plane of the actuator
- Suitable for retrofitting
- For play-free interlocking of light guards
- The magnetic latch can be easily fitted in any actuating plane



#### 1095550 - AZ 15/16-B3

- For very small actuating radii at 90° to the plane of the actuator



#### 1096089 - AZ 15/16-B2-1747 WITH MAGNETIC LATCH

- For very small actuating radii in line with the plane of the actuator
- Suitable for retrofitting
- For play-free interlocking of light guards
- The magnetic latch can be easily fitted in any actuating plane



#### 1096091 - AZ 15/16-B2-1747

- For very small actuating radii in line with the plane of the actuator
- Suitable for retrofitting
- For play-free interlocking of light guards



#### 1095558 - AZ 15/16-B2

- For very small actuating radii in line with the plane of the actuator

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#### 1137408 - AZ 15/16-B1-2245

- Damps vibration on guard device



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**1126794 - AZ 15/16-B1-2177 WITH CENTERING GUIDE**

- For interlocking of light, unguided guards



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**1126793 - AZ 15/16-B1-2177**

- For interlocking of light, unguided guards



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**1111081 - AZ 15/16-B1-2053 WITH BALL LATCH**

- For interlocking of light to medium-weight guards



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**1111079 - AZ 15/16-B1-2053**

- For interlocking of light to medium-weight guards



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**1108278 - AZ 15/16-B1-2024 WITH SLOT SEALING PLUG**

- For protection against the ingress of course dirt



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**1108276 - AZ 15/16-B1-2024**



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**1093553 - 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





**1092711 - AZ 15/16-B1-1747**

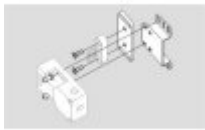
- For play-free interlocking of light guards
- Suitable for retrofitting



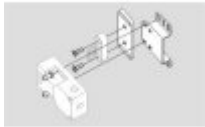
**101083036 - AZ 15/16-B1**

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**Accessories**



**1149214 - Mounting set MS AZ 15/16 R/P**



**1150373 - Mounting set MS AZ 15/16 P**



**101110500 - SZ 16/335**

- To prevent inadvertent closing, e.g. during maintenance
- For complex plant
- Prevents actuation of the switch
- Up to 6 padlocks can be fitted
- The lockout tag can be mounted on a chain near to the safety switch



**101115025 - Ball latch 2053-2**

- Additional ball latch for stable latching of light to medium-weight guards
- For separate mounting on the guard



**1089116 - Slot sealing plugs AZ 15/16-1476**

- For protection against the ingress of course dirt
- To cover unused actuator slots
- Simple clip-in fitting

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**Mounting accessories**

**101135340 - TAMPERPROOF SCREWS M 5 x 20**

- To mount the actuator





- Higher protection against tampering with interlock
- Protects against unauthorised removal of actuator
- Various lengths available



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**101135339 - TAMPERPROOF SCREWS M 5 x 16**

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

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

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