

Datasheet - AZ 15 ZVRK

Safety switch with separate actuator / AZ 15



- 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
- Not sensitive to dirty conditions by virtue of patented roller system
- 3 cable entries M 16 x 1.5

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

Ordering details

Product type description	AZ 15 ZVRK
Article number	1153619
EAN code	4030661169354

Approval


Approval	 BG  USA/CAN  CCC
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Classification

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

Global Properties

Product name	AZ 15
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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	100 g

Mechanical data

Design of electrical connection	Screw connection
Cable section	
- Min. Cable section	0,75 mm ²
- Max. Cable section	2.5 mm ²
Mechanical life	> 1.000.000 operations
higher Latching force (Y/N)	Yes
Latching force	30 N
With ejection force (Y/N)	No
Positive break force	10 N
positive break travel	8 mm
notice	All indications about the cable section are including the conductor ferrules.

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	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, 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	75 mm
- Length of sensor	30 mm

Included in delivery

Actuators must be ordered separately.

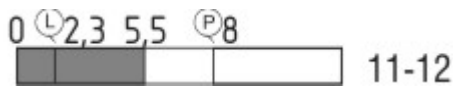
Diagram



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.

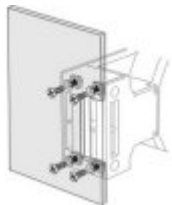
Order example: AZ 15 ZVRK- **2254**

...- **2254**

Latching force 5 N

...-**1637**

With gold-plated contacts (0,3 µm), ordering suffix -1637



...- **1762**

Versions with M5 nuts
For front mounting of safety switch, e.g. on sheet-steel covers
Cannot be retrofitted

Ordering code

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

(1)

without Ejection force

R Latching force 30 N

(2)

without Cable entry M16

ST Connector M12, 4-pole

(3)

2254 Latching force 5 N

1762 Front mounting

1637 gold-plated contacts

Documents

Operating instructions and Declaration of conformity (de) 427 kB, 21.01.2010
http://www.schmersal.net/Bilddata/AZ/Pdf/Az15_16/bedien/DE/mrl_az15-16_de.pdf

Operating instructions and Declaration of conformity (pt) 445 kB, 02.03.2010
http://www.schmersal.net/Bilddata/AZ/Pdf/Az15_16/bedien/pt/mrl_az15-16i_pt.pdf

Operating instructions and Declaration of conformity (es) 349 kB, 27.11.2009
http://www.schmersal.net/Bilddata/AZ/Pdf/Az15_16/bedien/ES/mrl_az15-16_es.pdf

Operating instructions and Declaration of conformity (it) 330 kB, 27.11.2009
http://www.schmersal.net/Bilddata/AZ/Pdf/Az15_16/bedien/IT/mrl_az15-16_it.pdf

Operating instructions and Declaration of conformity (nl) 344 kB, 27.11.2009
http://www.schmersal.net/Bilddata/AZ/Pdf/Az15_16/bedien/NL/mrl_az15-16_nl.pdf

Operating instructions and Declaration of conformity (en) 435 kB, 21.01.2010
http://www.schmersal.net/Bilddata/AZ/Pdf/Az15_16/bedien/EN/mrl_az15-16_en.pdf

Operating instructions and Declaration of conformity (jp) 526 kB, 27.11.2009
http://www.schmersal.net/Bilddata/AZ/Pdf/Az15_16/bedien/JP/mrl_az15-16_jp.pdf

Operating instructions and Declaration of conformity (fr) 430 kB, 27.11.2009
http://www.schmersal.net/Bilddata/AZ/Pdf/Az15_16/bedien/FR/mrl_az15-16_fr.pdf

BG-test certificate (en) 1 MB, 07.03.2007
http://www.schmersal.net/Bilddata/AZ/Pdf/Az15_16/baumuste/z_z15p02.pdf

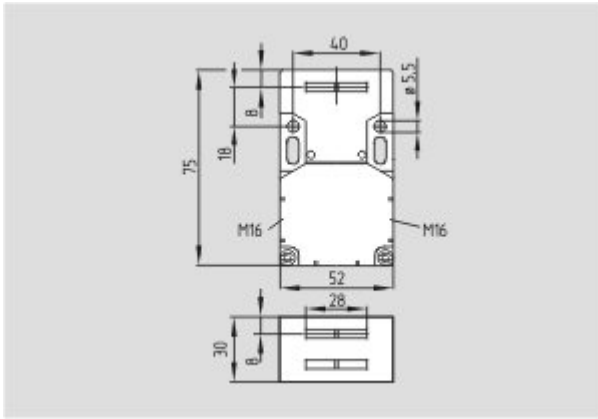
BG-test certificate (de) 2 MB, 07.03.2007
http://www.schmersal.net/Bilddata/AZ/Pdf/Az15_16/baumuste/z_z15p01.pdf

CCC certification (en) 746 kB, 12.12.2006
http://www.schmersal.net/Bilddata/AZ/Pdf/Az15_16/zertifikat/q_175p02.pdf

CCC certification (cn) 730 kB, 12.12.2006
http://www.schmersal.net/Bilddata/AZ/Pdf/Az15_16/zertifikat/q_175p03.pdf

Gost certification (ru) 1 MB, 21.06.2007
http://www.schmersal.net/Bilddata/AZ/Pdf/Az15_16/zertifikat/q_az1p01.pdf

Images



Dimensional drawing (basic component)

System components

Actuator

1083036 - AZ 15/16-B1



1092711 - AZ 15/16-B1-1747



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

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

1108276 - AZ 15/16-B1-2024



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



- For protection against the ingress of course dirt

1111079 - AZ 15/16-B1-2053

- For interlocking of light to medium-weight guards



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

- For interlocking of light to medium-weight guards



1126793 - AZ 15/16-B1-2177

- For interlocking of light, unguided guards



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

- For interlocking of light, unguided guards



1137408 - AZ 15/16-B1-2245

Damps vibration on guard device



1095558 - AZ 15/16-B2

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



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



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





1095550 - AZ 15/16-B3

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



1096090 - 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



1096092 - AZ 15/16-B3-1747

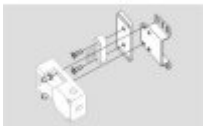
- For very small actuating radii at 90° to the plane of the actuator
- Suitable for retrofitting
- For play-free interlocking of light guards



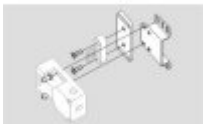
1137434 - AZ 15/16-B6

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

Accessories



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



1150373 - Mounting set MS AZ 15/16 P



1089116 - Slot sealing plugs AZ 15/16-1476

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

1115025 - Ball latch 2053-2

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



1110500 - 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



Mounting accessories



1135338 - TAMPERPROOF SCREWS M 5 x 12

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



1135339 - 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



1135340 - 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