



## AZ 16-12ZVK-M20

- 3 cable entries M 20 x 1.5
- Large wiring compartment
- Thermoplastic enclosure
- Double-insulated
- 52 mm x 90 mm x 30 mm
- Universal coding
- Long life
- High level of contact reliability with low voltages and currents
- Insensitive to soiling
- Slotted holes for adjustment, circular holes for location

## Data

### Ordering data

Product type description	AZ 16-12ZVK-M20
Article number (order number)	101157371
EAN (European Article Number)	4030661180014
eCl@ss number, version 12.0	27-27-26-02
eCl@ss number, version 11.0	27-27-26-02
eCl@ss number, version 9.0	27-27-26-02
ETIM number, version 7.0	EC002592
ETIM number, version 6.0	EC002592

### Approvals - Standards

Certificates	TÜV cULus CCC
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### General data

Standards	EN ISO 13849-1 EN ISO 14119 EN IEC 60947-5-1
Coding level according to EN ISO 14119	Low
Working principle	electromechanical
Housing material	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
Gross weight	120 g

### General data - Features

Ejection force	Yes
Number of actuating directions	3
Number of auxiliary contacts	1
Number of safety contacts	2
Number of cable glands	3

### Safety classification

Standards	EN ISO 13849-1
Performance Level, up to	c
Category	1
B <sub>10D</sub> Normally-closed contact (NC)	2,000,000 Operations
Note	Electrical life on request.
B <sub>10D</sub> Normally-open contact (NO)	1,000,000 Operations
Note	at 10% I <sub>e</sub> and ohmic load
Mission time	20 Year(s)

### Safety classification - Fault exclusion

Please note:	Can be used when fault exclusion for dangerous damage to the 1-channel mechanism is permissible and sufficient protection against manipulation is guaranteed.
Performance Level, up to	d

Category	3
Note	for 2-channel use and with suitable logic unit.
Mission time	20 Year(s)

### Mechanical data

Mechanical life, minimum	1,000,000 Operations
Positive break travel	8 mm
Positive break force per NC contact, minimum	10 N
Positive break force, minimum	20 N
Actuating speed, maximum	2 m/s
Mounting	Screws
Type of the fixing screws	2x M6

### Mechanical data - Connection technique

Cable entry	3 x M20 x 1,5
Termination	Screw terminals
Cable section, minimum	0.25 mm <sup>2</sup>
Cable section, maximum	2.5 mm <sup>2</sup>
Note (Cable section)	All indications including the conductor ferrules.
Allowed type of cable	solid single-wire solid multi-wire flexible

### Mechanical data - Dimensions

Length of sensor	30 mm
Width of sensor	52 mm
Height of sensor	90 mm

### Ambient conditions

Degree of protection	IP67
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Ambient temperature	-30 ... +80 °C
Storage and transport temperature, minimum	-40 °C
Storage and transport temperature, maximum	+85 °C
Permissible installation altitude above sea level, maximum	2,000 m

### Ambient conditions - Insulation values

Rated insulation voltage $U_i$	500 V
Rated impulse withstand voltage $U_{imp}$	6 kV
Overtoltage category	III
Degree of pollution	3

### Electrical data

Thermal test current	10 A
Required rated short-circuit current	1,000 A
Switching element	NO contact, NC contact
Switching principle	slow action, positive break NC contact
Switching frequency	4,000 /h
Material of the contacts, electrical	Silver

### Electrical data - Safety contacts

Voltage, Utilisation category AC-15	230 VAC
Current, Utilisation category AC-15	4 A
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	4 A

## Electrical data - Auxiliary contacts

Voltage, Utilisation category AC- 230 VAC  
15

Current, Utilisation category AC- 4 A  
15

Voltage, Utilisation category DC- 24 VDC  
13

Current, Utilisation category DC- 4 A  
13

## Scope of delivery

Scope of delivery                      Actuator must be ordered separately.

## Ordering code

Product type description:  
AZ 16-(1)ZV(2)K-(3)-(4)-(5)

(1)

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<b>without</b>	1 NO contacts/1 NC contact
<b>02</b>	2 NC contact
<b>03</b>	3 NC contact
<b>12</b>	1 NO contact/2 NC contacts

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<b>without</b>	Ejection force
<b>R</b>	Latching force 30 N

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<b>G24</b>	with LED (only available for version with one NO and one NC contact)
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<b>M16</b>	cable entry M16
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<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

(5)

<b>2254</b>	Latching force 5 N
<b>1762</b>	Front mounting
<b>1637</b>	Gold-plated contacts

## Pictures

### Product picture (catalogue individual photo)



ID: kaz16f01  
 | 471.8 kB | .jpg | 165.806 x 268.817 mm - 470 x 762 px - 72 dpi  
 | 115.4 kB | .png | 74.083 x 119.944 mm - 210 x 340 px - 72 dpi  
 | 74.5 kB | .jpg | 76.2 x 123.472 mm - 216 x 350 px - 72 dpi

### Dimensional drawing basic component



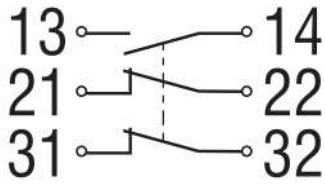
ID: laz16g01  
 | 28.1 kB | .cdr |  
 | 3.1 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi  
 | 62.3 kB | .jpg | 352.778 x 245.886 mm - 1000 x 697 px - 72 dpi

### Switch travel diagram



ID: kaz16s04  
 | 20.2 kB | .cdr |  
 | 2.1 kB | .png | 74.083 x 32.103 mm - 210 x 91 px - 72 dpi  
 | 65.6 kB | .jpg | 352.778 x 152.047 mm - 1000 x 431 px - 72 dpi

### Diagram



ID: k2o1sk02

| 82.3 kB | .jpg | 352.778 x 193.322 mm - 1000 x 548 px - 72 dpi

| 3.2 kB | .png | 74.083 x 40.569 mm - 210 x 115 px - 72 dpi

Schmersal India Pvt. Ltd., Plot No - G-7/1, Ranjangaon MIDC, Tal. - Shirur, Dist.- Pune 412 220

The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.

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