



## ZS 336-02Z-M20

- Snap action with constant contact pressure up to switching point
- 1 Cable entry M 20 x 1.5
- Design to EN 50041
- Thermoplastic enclosure
- Double-insulated
- Good resistance to oil and petroleum spirit
- Wide range of alternative actuators
- Actuator heads can be repositioned by 4 x 90°

## Data

### Ordering data

Product type description	ZS 336-02Z-M20
Article number (order number)	151168150
eCl@ss number, version 12.0	27-27-26-01
eCl@ss number, version 11.0	27-27-26-01
eCl@ss number, version 9.0	27-27-26-01
ETIM number, version 7.0	EC000030
ETIM number, version 6.0	EC000030

### Approvals - Standards

Certificates	cULus CCC
--------------	--------------

### General data

Housing construction form	Norm construction design
Actuator type to EN 50041	B
Housing material	Plastic, glass-fibre-reinforced
Gross weight	118 g

### General data - Features

Safety functions	Yes
Number of safety contacts	2

### Safety classification

Standards	BG-GS-ET-15 EN ISO 13849-1 EN IEC 60947-5-1
Mission time	20 Year(s)

### Safety classification - Safety outputs

B <sub>10D</sub> Normally-closed contact (NC)	20,000,000 Operations
---	-----------------------

### Mechanical data

Actuating element	Plunger
Mechanical life, minimum	30,000,000 Operations
Actuating force, minimum	12 N
Actuating speed, maximum	0.5 m/s
Note Bounce duration	Bounce duration in accordance with actuating speed

### Mechanical data - Connection technique

Termination	Screw terminals M20 x 1.5
-------------	---------------------------

Cable section, minimum	0.75 mm <sup>2</sup>
Cable section, maximum	2.5 mm <sup>2</sup>
Note (Cable section)	All indications including the conductor ferrules.

### Mechanical data - Dimensions

Length of sensor	38 mm
Width of sensor	40.5 mm
Height of sensor	103.5 mm

### Ambient conditions

Degree of protection	IP65 IP67
Ambient temperature	-30 ... +80 °C

### Ambient conditions - Insulation values

Rated insulation voltage $U_i$	500 V
Rated impulse withstand voltage $U_{imp}$	6 kV

### Electrical data

Thermal test current	10 A
Required rated short-circuit current	1,000 A
Utilisation category AC-15	230 VAC
Utilisation category AC-15	4 A
Utilisation category DC-13	24 VDC
Utilisation category DC-13	4 A
Switching element	Opener (NC)
Switching principle	Snap action
Switching frequency	5,000 /h

Switchover time, maximum	2 ms
Material of the contacts, electrical	Silver

## Ordering code

Product type description:

(1)(2) 336-(3)(4)-(5)-(6)-(7)-(8)-(9)

(1)

<b>Z</b>	Snap action
<b>T</b>	Slow action (not for AF/S)

(2)

<b>S</b>	Plunger S
<b>R</b>	Roller plunger R
<b>H</b>	Roller lever H
<b>10H</b>	Rod lever 10H
<b>7H</b>	Roller lever 7H
<b>1K</b>	Offset roller lever 1K
<b>3K</b>	Angle roller lever 3K
<b>RMS</b>	Brass roller

(3)

<b>11</b>	1 NO contacts/1 NC contact
<b>02</b>	2 NC contact
<b>20</b>	2 NO contacts, (switches with 2 NO contacts are not suitable for safety applications)
<b>01/01</b>	1 NC contact left / 1 NC contact right

(4)

<b>Y</b>	IP 65
<b>Z</b>	IP 67

(5)

	without latching
<b>R</b>	with latching

(6)

<b>H</b>	Slow action with staggered contacts
<b>UE</b>	Slow action with overlapping contacts

(7)

<b>without</b>	Cable entry M20
<b>NPT</b>	Cable entry NPT 1/2"
<b>ST</b>	M12 connector with A-coding
<b>ST-2310</b>	M12 connector with B-coding

(8)

<b>2138</b>	Roller lever 7H for position switches with safety function
-------------	--

(9)

<b>1637</b>	Gold-plated contacts
-------------	----------------------

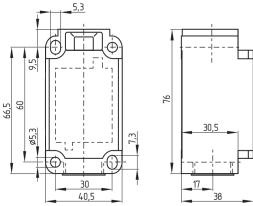
## Pictures

### Product picture (catalogue individual photo)



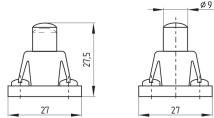
ID: k336sf01  
| 632.4 kB | .jpg | 352.778 x 701.322 mm - 1000 x 1988 px - 72 dpi  
| 78.9 kB | .png | 74.083 x 147.108 mm - 210 x 417 px - 72 dpi

### Dimensional drawing basic component



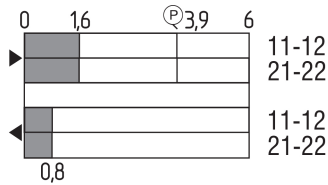
ID: 1-336g01  
 | 51.4 kB | .cdr |  
 | 4.1 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi  
 | 107.0 kB | .jpg | 352.778 x 245.181 mm - 1000 x 695 px - 72 dpi

## Dimensional drawing actuator



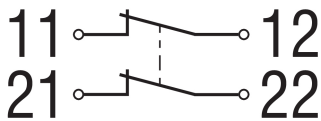
ID: 1s336g01  
 | 48.9 kB | .cdr |  
 | 2.7 kB | .png | 74.083 x 52.211 mm - 210 x 148 px - 72 dpi  
 | 52.6 kB | .jpg | 352.778 x 248.003 mm - 1000 x 703 px - 72 dpi

## Switch travel diagram



ID: kr335s11  
 | 25.6 kB | .cdr |  
 | 2.2 kB | .png | 74.083 x 40.922 mm - 210 x 116 px - 72 dpi  
 | 70.3 kB | .jpg | 352.778 x 195.086 mm - 1000 x 553 px - 72 dpi

## Diagram



ID: k2o--k01  
 | 48.8 kB | .jpg | 352.778 x 125.236 mm - 1000 x 355 px - 72 dpi  
 | 2.3 kB | .png | 74.083 x 26.458 mm - 210 x 75 px - 72 dpi

Schmersal, Inc., 15 Skyline Drive, Hawthorne, NY 10532

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.

Generated on: 8/21/2023, 5:27 PM