



## ZR 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	ZR 336-02Z-M20
Article number (order number)	151154789
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
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### General data

Housing construction form	Norm construction design
Actuator type to EN 50041	C
Housing material	Plastic, glass-fibre-reinforced
Gross weight	116 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
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### Mechanical data

Actuating element	Roller plunger
Mechanical life, minimum	30,000,000 Operations
Actuating force, minimum	12 N
Actuating speed, maximum	0.5 m/s
Note (Actuating speed)	Actuating speed with actuating angle 30° to switch axis
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	116.5 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
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(9)

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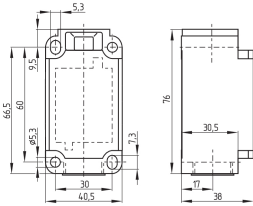
## Pictures

### Product picture (catalogue individual photo)



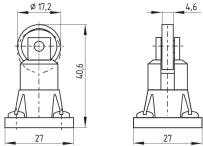
ID: k336rf01  
| 723.9 kB | .jpg | 352.778 x 772.231 mm - 1000 x 2189 px - 72 dpi  
| 86.7 kB | .png | 74.083 x 161.925 mm - 210 x 459 px - 72 dpi

### Dimensional drawing basic component



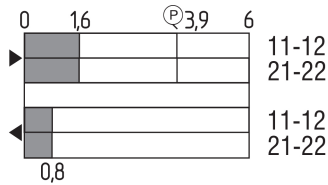
ID: 1-336g01  
 | 51.4 kB | .cdr |  
 | 4.1 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi  
 | 107.0 kB | .jpg | 352.778 x 245.181 mm - 1000 x 695 px - 72 dpi

## Dimensional drawing actuator



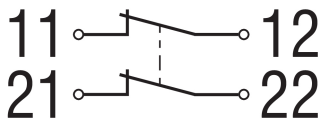
ID: 1r336g01  
 | 51.1 kB | .cdr |  
 | 6.6 kB | .png | 74.083 x 52.211 mm - 210 x 148 px - 72 dpi  
 | 66.1 kB | .jpg | 352.778 x 248.003 mm - 1000 x 703 px - 72 dpi

## 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

## Operating principle



ID: 235rz01  
 | 15.2 kB | .cdr |  
 | 149.7 kB | .jpg | 352.778 x 799.394 mm - 1000 x 2266 px - 72 dpi  
 | 2.9 kB | .png | 74.083 x 167.922 mm - 210 x 476 px - 72 dpi

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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