



## ZR 236-02Z-M20

- Snap action with constant contact pressure up to switching point
- 1 Cable entry M 20 x 1.5
- Thermoplastic enclosure
- Good resistance to oil and petroleum spirit
- Wide range of alternative actuators
- 30 mm x 58,5 mm x 30 mm
- Double-insulated
- Mounting details to EN 50047
- Actuator heads can be repositioned by 4 x 90°

## Data

### Ordering data

Product type description	ZR 236-02Z-M20
Article number (order number)	151161682

### Approvals - Standards

Certificates	cULus CCC
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### General data

Standards	BG-GS-ET-15 EN ISO 13849-1 EN IEC 60947-5-1
Housing construction form	Norm construction design
Actuator type to EN 50047	c
Housing material	Plastic, glass-fibre-reinforced

Gross weight	57 g
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### General data - Features

Safety functions	Yes
Number of safety contacts	2

### Safety classification

Standards	EN ISO 13849-1
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	20,000,000 Operations
Actuating force, minimum	9 N
Positive break force, minimum	19 N
Actuating speed, minimum	20 mm/min
Actuating speed, maximum	1 m/s
Note (Actuating speed)	Actuating speed with actuating angle 30° to switch axis

### 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	30 mm
Width of sensor	30 mm
Height of sensor	84 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	1 A
Switching element	Opener (NC)
Switching principle	Snap action
Bounce duration, maximum	3 ms
Switching frequency	5,000 /h
Switchover time, maximum	5.5 ms
Material of the contacts, electrical	Silver

## Ordering code

Product type description:

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

(1)

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

(2)

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<b>S</b>	Plunger S
<b>R</b>	Roller plunger R
<b>4S</b>	Plunger 4S
<b>4R</b>	Roller plunger 4R
<b>1R</b>	Offset roller lever 1R
<b>K</b>	Offset roller lever K
<b>3K</b>	Angle roller lever 3K
<b>4K</b>	Angle roller lever 4K
<b>K4</b>	Angle roller lever K4
<b>1H</b>	Roller lever 1H
<b>7H</b>	Roller lever 7H
<b>10H</b>	Rod lever 10H
<b>12H</b>	Roller lever 12H
<b>14H</b>	Roller lever 14H
<b>AF</b>	Spring rod lever AF
<b>RMS</b>	Brass roller

(3)

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<b>35</b>	slim design
<b>56</b>	large design

(4)

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

(5)

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

(6)

<b>without</b>	Cable entry M20
<b>ID</b>	Cut clamps
<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

(7)

<b>1297</b>	Enclosure with transverse slotted holes
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<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)**

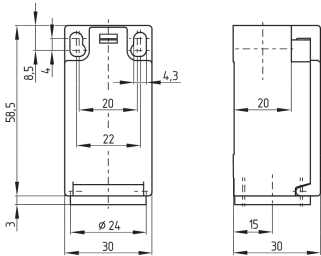


ID: k236rf01

| 960.2 kB | .jpg | 352.778 x 798.336 mm - 1000 x 2263 px - 72 dpi

| 103.5 kB | .png | 74.083 x 167.569 mm - 210 x 475 px - 72 dpi

## Dimensional drawing basic component

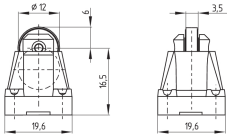


ID: 1-236g01

| 4.0 kB | .png | 74.083 x 73.378 mm - 210 x 208 px - 72 dpi

| 115.0 kB | .jpg | 352.778 x 349.956 mm - 1000 x 992 px - 72 dpi

## Dimensional drawing actuator

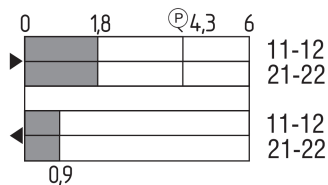


ID: 1r236g01

| 7.4 kB | .png | 74.083 x 51.858 mm - 210 x 147 px - 72 dpi

| 76.5 kB | .jpg | 352.778 x 247.297 mm - 1000 x 701 px - 72 dpi

## Switch travel diagram



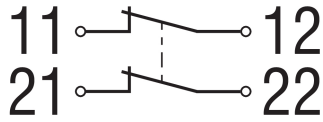
ID: kr235s11

| 26.7 kB | .cdr |

| 2.2 kB | .png | 74.083 x 41.628 mm - 210 x 118 px - 72 dpi

| 71.1 kB | .jpg | 352.778 x 197.908 mm - 1000 x 561 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

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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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