DATASHEET



EX-ZR 235-02Z-3D

- Snap action with constant contact pressure up to switching point
- Metal enclosure
- Wide range of alternative actuators
- Good resistance to oil and petroleum spirit
- 30 mm x 63,5 mm x 30 mm
- Actuator heads can be repositioned by 4 x 90°
- Mounting details to EN 50047
- 1 Cable entry M 20 x 1.5

Data

Ordering data

Product type description	EX-ZR 235-02Z-3D
Article number (order number)	101192297
EAN (European Article Number)	4030661351995
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	INMETRO

Explosion protection

Explosion protection: regulations	EN IEC 60079-0 EN IEC 60079-15 EN 60079-31

Explosion protection zones	2 22
Explosion protection category	3G 3D
Explosion protection designation	II 3G Ex nC IIC T5 Gc X II 3D Ex tc IIIC T90°C Dc X
Manufacturer declaration	ATEX Zone 2 and 22 Additional simple electrical apparatus (Zone 0 and 20)

General data

Standards	BG-GS-ET-15 EN IEC 60947-5-1
Housing construction form	Norm construction design
Actuator type to EN 50047	c
Housing material	Metal, zinc die-cast
Housing coating material	painted
Gross weight	197 g

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_{10D} Normally-closed contact (NC)	20,000,000 Operations

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 cross-section of the cable glands, minimum	7 mm
Cable cross-section of the cable glands, maximum	12 mm
Cable section, minimum	0.75 mm²
Cable section, maximum	2.5 mm²
Note (Cable section)	All indications including the conductor ferrules.
Wire cross-section	13 AWG

Mechanical data - Dimensions

Length of sensor	30 mm
Width of sensor	30 mm
Height of sensor	86 mm

Ambient conditions

Degree of protection	IP67
Ambient temperature	-20 ... +60 °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
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, minimum	5.5 ms
Material of the contacts, electrical	Silver

Scope of delivery

Scope of delivery	Ex-certified screwed cable gland

Ordering code

Product type description:
EX-(1)(2) 235-(3)Z-(4)-(5)-(6)-(7)-3D

(1)

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

(2)

S	Plunger S
R	Roller plunger R
4S	Plunger 4S
4R	Roller plunger 4R
1R	Offset roller lever 1R
K	Offset roller lever K
3K	Angle roller lever 3K

4K	Angle roller lever 4K
K4	Angle roller lever K4
1H	Roller lever 1H
7H	Roller lever 7H
10H	Rod lever 10H
12H	Roller lever 12H
14H	Roller lever 14H

(3)

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

(4)

H	Slow action with staggered contacts
UE	Slow action with overlapping contacts

(5)

1297	Enclosure with transverse slotted holes

(6)

2138	Roller lever 7H for position switches with safety function

(7)

1637	Gold-plated contacts

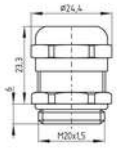
Pictures

Product picture (catalogue individual photo)



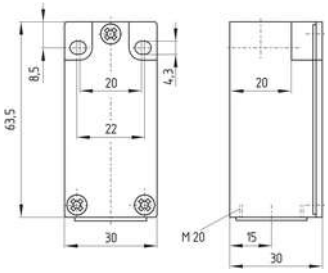
ID: k235rf01
| 724.9 kB | .jpg | 352.778 x 729.192 mm - 1000 x 2067 px - 72 dpi
| 73.9 kB | .png | 74.083 x 153.106 mm - 210 x 434 px - 72 dpi
| 32.2 kB | .jpg | 59.619 x 123.472 mm - 169 x 350 px - 72 dpi

Dimensional drawing basic component



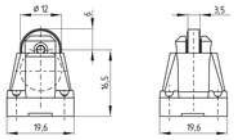
ID: 1xzm1g07
| 2.5 kB | .png | 74.083 x 51.153 mm - 210 x 145 px - 72 dpi
| 46.3 kB | .jpg | 352.778 x 243.769 mm - 1000 x 691 px - 72 dpi

Dimensional drawing basic component



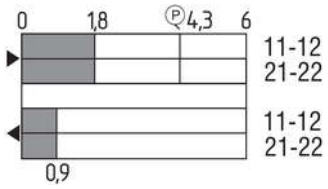
ID: k-235g01
| 24.5 kB | .cdr |
| 3.6 kB | .png | 74.083 x 61.736 mm - 210 x 175 px - 72 dpi
| 111.2 kB | .jpg | 352.778 x 293.511 mm - 1000 x 832 px - 72 dpi

Dimensional drawing actuator



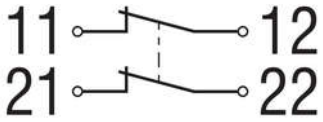
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| 7.4 kB | .png | 74.083 x 51.858 mm - 210 x 147 px - 72 dpi
| 76.5 kB | .jpg | 352.778 x 247.297 mm - 1000 x 701 px - 72 dpi

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

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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