DATASHEET



TR 236-11Z-M20

- 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	TR 236-11Z-M20
Article number (order number)	131153302
EAN (European Article Number)	8905236103919
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

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	55 g

General data - Features

Safety functions	Yes
Number of auxiliary contacts	1
Number of safety contacts	1

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	120 mm/min
Actuating speed, maximum	1 m/s
Note (Actuating speed)	Actuating speed with actuating angle 30° to switch axis
Note Bounce duration	Bounce duration in accordance with actuating speed
Note (Switchover time)	Switchover time in accordance with actuating speed

Mechanical data - Connection technique

Termination	Screw terminals M20 x 1.5
Cable section, minimum	0.75 mm²
Cable section, maximum	2.5 mm²
Note	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	NO contact, NC contact
Switching principle	Slow action
Maximum switching frequency	5,000 /h
Material of the contacts, electrical	Silver

Ordering code

Product type description:
(1)(2) 2(3)6-(4)Z(5)-(6)-(7)-(8)-(9)

(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
AF	Spring rod lever AF
RMS	Brass roller

(3)

3	slim design
215	large design

(4)

02	2 NC contact
11	1 NO contact/1 NC contact

20	2 NO contacts, (switches with 2 NO contacts are not suitable for safety applications)

(5)

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

(6)

without	Cable entry M20
ID	Cut clamps
NPT	Cable entry NPT 1/2"
ST	M12 connector with A-coding
ST-2310	M12 connector with B-coding

(7)

1297	Enclosure with transverse slotted holes

(8)

2138	Roller lever 7H for position switches with safety function

(9)

1637	Gold-plated contacts

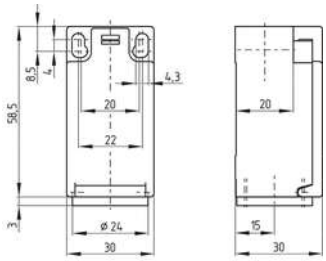
Pictures

Product picture (catalogue individual photo)



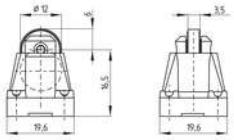
ID: k236rf01
| 960.2 kB | .jpg | 352.778 x 798.336 mm - 1000 x 2263 px - 72 dpi
| 103.5 kB | .png | 74.083 x 167.569 mm - 210 x 475 px - 72 dpi
| 32.9 kB | .jpg | 54.681 x 123.472 mm - 155 x 350 px - 72 dpi

Dimensional drawing basic component



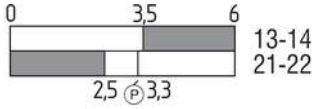
ID: 1-236g01
| 4.0 kB | .png | 74.083 x 73.378 mm - 210 x 208 px - 72 dpi
| 115.0 kB | .jpg | 352.778 x 349.956 mm - 1000 x 992 px - 72 dpi

Dimensional drawing actuator



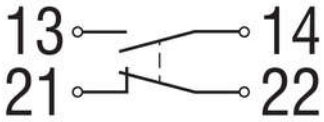
ID: 1r236g01
| 7.4 kB | .png | 74.083 x 51.858 mm - 210 x 147 px - 72 dpi
| 76.5 kB | .jpg | 352.778 x 247.297 mm - 1000 x 701 px - 72 dpi

Switch travel diagram



ID: kr235s08
| 25.0 kB | .cdr |
| 1.7 kB | .png | 74.083 x 23.283 mm - 210 x 66 px - 72 dpi
| 45.0 kB | .jpg | 352.778 x 111.478 mm - 1000 x 316 px - 72 dpi

Diagram



ID: k1o1sk01
| 52.2 kB | .jpg | 352.778 x 143.581 mm - 1000 x 407 px - 72 dpi
| 2.6 kB | .png | 74.083 x 29.986 mm - 210 x 85 px - 72 dpi