



T4R 235-20Z

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

Data

Ordering data

T4R 235-20Z

101112912

eCl@ss number, Version 9.0

27-27-06-01

General data

Product name	T 235 roller plunger with central mounting 4R IEC 60947-5-1 ISO 13849-1 BG-GS-ET-15
Housing construction form	Norm construction design
Enclosure material	Zink
Enclosure coating material	painted
Material of the contacts, electrical	Silver
Gross weight	185 g

General data - Features

Number of auxiliary contacts	2
------------------------------	---

Safety appraisal

	ISO 13849-1
Mission Time	20 Year(s)

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

Terminal Connector	Screw connection 0.75 mm ² 2.5 mm ²
Note (Cable section)	All indications about the cable section are including the conductor ferrules.

Mechanical data - Dimensions

Height of sensor	103.5 mm
Length of sensor	30 mm
Width of sensor	30 mm

Ambient conditions

	IP67
Ambient temperature, minimum	-30 °C
Ambient temperature, maximum	+80 °C

Ambient conditions - Insulation value

Rated impulse withstand voltage	6 kV
---------------------------------	------

Electrical data

Thermal test current	10 A
Required rated short-circuit current to EN 60947-5-1	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	Normally open contact (NO)
Switching principle	Creep circuit element

Switching frequency 5,000 /h

Notes

Note (General) Switch with 2 NO contacts are not for security tasks

Ordering code

Product type description:

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

(1)

Z Snap action

T Slow action (not available 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

5 large design

(4)

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)

(5)

H Slow action with staggered contacts

UE Slow action with overlapping contacts

- (6)
- without** Cable entry M20
- ID** IDC method of termination
- NPT** Cable entry NPT 1/2"
- ST** M12 connector with A-coding (Caution! According to EN 60204-1, the versions with connector must only be used in PELV circuits.)
- ST-2310** M12 connector with B-coding (Caution! According to EN 60204-1, the versions with connector must only be used in PELV circuits.)

- (7)
- 2574** Enclosure with L-shaped mounting holes (horizontally or vertically adjustable)

- (8)
- 2138** Roller lever 7H for position switches with safety function

- (9)
- 1637** Gold-plated contacts

Pictures

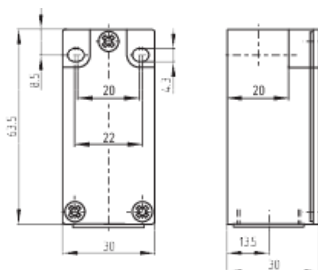
Photo/Product/Catalogue



ID: k235rf02

| 194,7 kB | .png | 74.083 x 202.142 mm - 210 x 573
Pixel - 72 dpi
| 312,8 kB | .jpg | 109.008 x 297.744 mm - 309 x 844
Pixel - 72 dpi

Dimension/Product/Basic

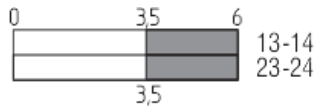


ID: 1-235g01

| 114,7 kB | .jpg | 352.778 x 293.158 mm - 1000 x 831
Pixel - 72 dpi
| 4,0 kB | .png | 74.083 x 61.383 mm - 210 x 174 Pixel
- 72 dpi

Diagramm/Product/Travel

ID: kr235s10



| 1,6 kB | .png | 74.083 x 22.578 mm - 210 x 64 Pixel - 72 dpi

| 23,4 kB | .cdr |

| 36,8 kB | .jpg | 352.778 x 106.892 mm - 1000 x 303 Pixel - 72 dpi

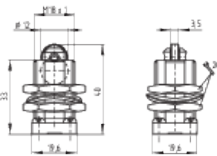
Graphic/Product/Contact



ID: k--2sk01

| 51,9 kB | .jpg | 352.778 x 135.819 mm - 1000 x 385 Pixel - 72 dpi

Dimension/Product/Actuator



ID: 1r236g02

| 8,5 kB | .png | 74.083 x 52.211 mm - 210 x 148 Pixel - 72 dpi

| 169,4 kB | .cdr |

| 90,5 kB | .jpg | 352.778 x 248.003 mm - 1000 x 703 Pixel - 72 dpi

K.A. Schmersal GmbH & Co. KG, Möddinghofe 3, D-42279 Wuppertal

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 272021-01-31T03:14:27+01:000301Europe/BerlinSun, 31 Jan 2021 03:14:27

+010027amSunday.31am31Europe/BerlinCET1401Europe/BerlinJanuary2021Sun, 31 Jan 2021 03:14:27

+010001am31