DATASHEET



Z4K 235-11Z-M20

- Snap action with constant contact pressure up to switching point
- 1 Cable entry M 20 x 1.5
- 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
- Actuation from bottom parallel to the switch, therefore only suitable for small housings.

Data

Ordering data

Product type description	Z4K 235-11Z-M20
Article number (order number)	151168161
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

General data

Standards	BG-GS-ET-15 EN ISO 13849-1 EN IEC 60947-5-1
Housing construction form	Norm construction design
Housing material	Metal, zinc die-cast
Gross weight	155 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	Angle roller lever
Mechanical life, minimum	20,000,000 Operations
Actuating force, minimum	6 N
Positive break force, minimum	16 N
Actuating speed, minimum	44 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 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	42 mm
Height of sensor	107 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	Snap action
Bounce duration, maximum	3 ms
Maximum 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)5-(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
Z	additional seal between attachment and housing

(6)

M16	cable entry M16
without	Cable entry M20
ID	Cut clamps
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

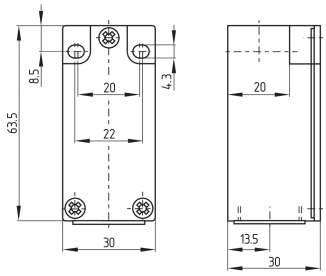
Pictures

Product picture (catalogue individual photo)



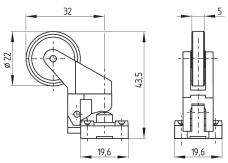
ID: k235kf03
| 304.1 kB | .jpg | 156.633 x 312.914 mm - 444 x 887 px - 72 dpi
| 101.2 kB | .png | 74.083 x 147.814 mm - 210 x 419 px - 72 dpi
| 45.0 kB | .jpg | 61.736 x 123.472 mm - 175 x 350 px - 72 dpi

Dimensional drawing basic component



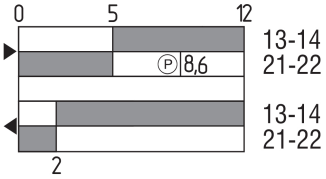
ID: 1-235g01
| 4.0 kB | .png | 74.083 x 61.383 mm - 210 x 174 px - 72 dpi
| 114.7 kB | .jpg | 352.778 x 293.158 mm - 1000 x 831 px - 72 dpi

Dimensional drawing actuator



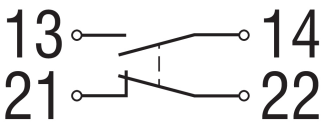
ID: 1k236g03
| 62.9 kB | .cdr |
| 4.0 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi
| 80.8 kB | .jpg | 352.778 x 245.886 mm - 1000 x 697 px - 72 dpi

Switch travel diagram



ID: kk235s12
| 26.3 kB | .cdr |
| 2.4 kB | .png | 74.083 x 39.158 mm - 210 x 111 px - 72 dpi
| 68.0 kB | .jpg | 352.778 x 187.325 mm - 1000 x 531 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

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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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