DATASHEET



TV7H 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°
- **only for positioning tasks**
- Lever angle adjustable in 10° steps

Data

Ordering data

Product type description	TV7H 236-11Z-M20
Article number (order number)	151168168
EAN (European Article Number)	4030661221144
eCl@ss number, version 12.0	27-27-06-01
eCl@ss number, version 11.0	27-27-06-01
eCl@ss number, version 9.0	27-27-06-01
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	Plastic, glass-fibre-reinforced
Lever material	Metal film
Gross weight	95 g

General data - Features

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 lever
Roller material	Plastic
Mechanical life, minimum	20,000,000 Operations
Actuating speed, minimum	1,440 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
Actuating torque, minimum	0.2 Nm

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	49 mm
Width of sensor	30 mm
Height of sensor	158.5 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

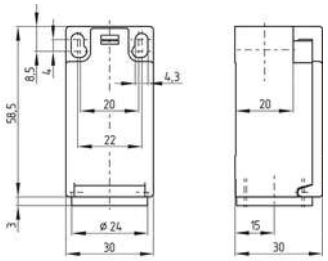
Pictures

Product picture (catalogue individual photo)



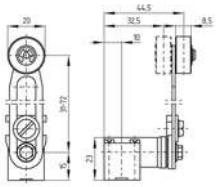
ID: k236hf02
| 217.8 kB | .jpg | 118.886 x 397.933 mm - 337 x 1128 px - 72 dpi
| 190.3 kB | .png | 74.083 x 247.65 mm - 210 x 702 px - 72 dpi
| 24.4 kB | .jpg | 37.042 x 123.472 mm - 105 x 350 px - 72 dpi

Dimensional drawing basic component



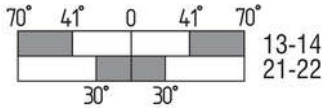
ID: 1-236g01
| 4.0 kB | .png | 74.083 x 73.378 mm - 210 x 208 px - 72 dpi
| 115.0 kB | .jpg | 352.778 x 349.956 mm - 1000 x 992 px - 72 dpi

Dimensional drawing actuator



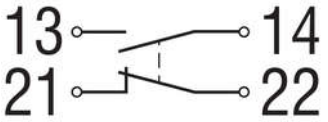
ID: 1h236g06
| 30.0 kB | .cdr |
| 9.7 kB | .png | 74.083 x 51.153 mm - 210 x 145 px - 72 dpi
| 102.2 kB | .jpg | 352.778 x 244.475 mm - 1000 x 693 px - 72 dpi

Switch travel diagram



ID: kh235s11
| 24.6 kB | .cdr |
| 1.8 kB | .png | 74.083 x 23.989 mm - 210 x 68 px - 72 dpi
| 50.4 kB | .jpg | 352.778 x 113.594 mm - 1000 x 322 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