



## TV1H 255-20ZH

- Metal enclosure
- 63 mm x 63,5 mm x 30 mm
- 3 cable entries M 20 x 1.5
- Mounting details to EN 50047
- Wide range of alternative actuators
- Lever angle adjustable in 10° steps
- Good resistance to oil and petroleum spirit
- Actuator heads can be repositioned by 4 x 90°

## Data

### Ordering data

TV1H 255-20ZH

101174950

eCl@ss number, Version 9.0

27-27-26-01

### General data

|                                      |                                                                      |
|--------------------------------------|----------------------------------------------------------------------|
| Product name                         | T 255 roller lever 1H<br>IEC 60947-5-1<br>ISO 13849-1<br>BG-GS-ET-15 |
| Housing construction form            | Norm construction design                                             |
| Actuator type to DIN EN 50047        | A                                                                    |
| Enclosure material                   | Zink                                                                 |
| Enclosure coating material           | painted                                                              |
| Material of the contacts, electrical | Silver                                                               |
| Lever material                       | Plastic                                                              |
| Roller material                      | Plastic                                                              |

### General data - Features

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

### Safety appraisal

ISO 13849-1

|              |            |
|--------------|------------|
| Mission Time | 20 Year(s) |
|--------------|------------|

#### Mechanical data

|                           |                                                         |
|---------------------------|---------------------------------------------------------|
| Actuating element         | Roller lever                                            |
| Mechanical life, minimum  | 20,000,000 Operations                                   |
| Actuating speed, minimum  | 492 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                                                  |
| Positive break torque     | 0.2 Nm                                                  |

#### Mechanical data - Connection technique

|                      |                                                                               |
|----------------------|-------------------------------------------------------------------------------|
| Terminal Connector   | Screw connection<br>0.75 mm²<br>2.5 mm²                                       |
| Note (Cable section) | All indications about the cable section are including the conductor ferrules. |

#### Mechanical data - Dimensions

|                  |          |
|------------------|----------|
| Height of sensor | 110.5 mm |
| Length of sensor | 42.5 mm  |
| Width of sensor  | 63 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  
Switching frequency

Slow action with staggered contacts  
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

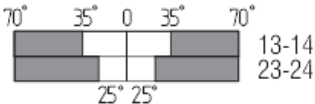


ID: k255hf01

| 71,8 kB | .png | 73.731 x 114.3 mm - 209 x 324 Pixel - 72 dpi

| 908,8 kB | .jpg | 338.667 x 523.875 mm - 960 x 1485 Pixel - 72 dpi

Diagramm/Product/Travel



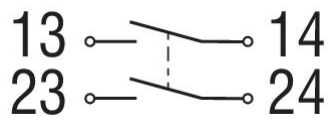
ID: kh235s08

| 49,2 kB | .jpg | 352.778 x 114.653 mm - 1000 x 325 Pixel - 72 dpi

| 19,8 kB | .cdr |

| 1,7 kB | .png | 74.083 x 23.989 mm - 210 x 68 Pixel - 72 dpi

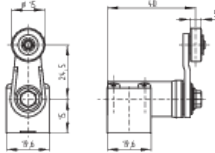
Graphic/Product/Contact



ID: k--2sk01

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

### Dimension/Product/Actuator



ID: 1h236g01

| 87,7 kB | .cdr |  
| 7,8 kB | .png | 74.083 x 51.153 mm - 210 x 145 Pixel  
- 72 dpi  
| 85,2 kB | .jpg | 352.778 x 244.475 mm - 1000 x 693  
Pixel - 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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