



## T4VH 336-02ZH-M20

- slim design
- 1 Cable entry M 20 x 1.5
- Design to EN 50041
- Lever angle adjustable in 10° steps
- Thermoplastic enclosure
- Double-insulated
- Good resistance to oil and petroleum spirit
- Wide range of alternative actuators
- Actuator heads can be repositioned by 4 x 90°

## Data

### Ordering data

|                               |                   |
|-------------------------------|-------------------|
| Product type description      | T4VH 336-02ZH-M20 |
| Article number (order number) | 151159163         |
| 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<br>CCC |
|--------------|--------------|

### General data

|                           |                          |
|---------------------------|--------------------------|
| Housing construction form | Norm construction design |
| Actuator type to EN 50041 | A                        |

|                  |                                 |
|------------------|---------------------------------|
| Housing material | Plastic, glass-fibre-reinforced |
| Lever material   | Metal film                      |
| Gross weight     | 183 g                           |

## General data - Features

|                           |     |
|---------------------------|-----|
| Safety functions          | Yes |
| Number of safety contacts | 2   |

## Safety classification

|              |   |
|--------------|---|
| Standards    | BG-GS-ET-15<br>EN ISO 13849-1<br>EN IEC 60947-5-1 |
| Mission time | 20 Year(s)  |

## Safety classification - Safety outputs

|   |                       |
|---|-----------------------|
| B <sub>10D</sub> Normally-closed contact (NC) | 20,000,000 Operations |
|---|-----------------------|

## Mechanical data

|                           |   |
|---------------------------|---|
| Actuating element         | Roller lever  |
| Roller material           | Plastic   |
| Mechanical life, minimum  | 30,000,000 Operations                                   |
| Actuating speed, maximum  | 2.5 m/s   |
| Note (Actuating speed)    | Actuating speed with actuating angle 30° to switch axis |
| Note (Switchover time)    | Switchover time in accordance with actuating speed      |
| Actuating torque, minimum | 0.3 Nm  |

## Mechanical data - Connection technique

|                        |                           |
|------------------------|---------------------------|
| Termination            | Screw terminals M20 x 1.5 |
| Cable section, minimum | 0.75 mm <sup>2</sup>      |
| Cable section, maximum | 2.5 mm <sup>2</sup>       |

Note (Cable section)

All indications including the conductor ferrules.

### Mechanical data - Dimensions

|                  |          |
|------------------|----------|
| Length of sensor | 60.5 mm  |
| Width of sensor  | 40.5 mm  |
| Height of sensor | 129.5 mm |

### Ambient conditions

|                      |                |
|----------------------|----------------|
| Degree of protection | IP65<br>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           | 4 A                                 |
| Switching element                    | Opener (NC)                         |
| Switching principle                  | Slow action with staggered contacts |
| Bounce duration, maximum             | 2 ms                                |
| Switching frequency                  | 5,000 /h                            |
| Material of the contacts, electrical | Silver                              |

### Ordering code

Product type description:

(1)(2) 336-(3)(4)-(5)-(6)-(7)-(8)-(9)

|              |   |
|--------------|---|
| (1)          |   |
| <b>Z</b>     | Snap action   |
| <b>T</b>     | Slow action (not for AF/S)  |
| (2)          |   |
| <b>S</b>     | Plunger S   |
| <b>R</b>     | Roller plunger R  |
| <b>H</b>     | Roller lever H  |
| <b>10H</b>   | Rod lever 10H   |
| <b>7H</b>    | Roller lever 7H   |
| <b>1K</b>    | Offset roller lever 1K  |
| <b>3K</b>    | Angle roller lever 3K   |
| <b>RMS</b>   | Brass roller  |
| (3)          |   |
| <b>11</b>    | 1 NO contacts/1 NC contact  |
| <b>02</b>    | 2 NC contact  |
| <b>20</b>    | 2 NO contacts, (switches with 2 NO contacts are not suitable for safety applications) |
| <b>01/01</b> | 1 NC contact left / 1 NC contact right  |
| (4)          |   |
| <b>Y</b>     | IP 65   |
| <b>Z</b>     | IP 67   |
| (5)          |   |
| <b>R</b>     | without latching<br>with latching   |
| (6)          |   |
| <b>H</b>     | Slow action with staggered contacts   |
| <b>UE</b>    | Slow action with overlapping contacts   |

(7)

|                |                             |
|----------------|-----------------------------|
| <b>without</b> | Cable entry M20             |
| <b>NPT</b>     | Cable entry NPT 1/2"        |
| <b>ST</b>      | M12 connector with A-coding |
| <b>ST-2310</b> | M12 connector with B-coding |

(8)

|             |  |
|-------------|--|
| <b>2138</b> | Roller lever 7H for position switches with safety function |
|-------------|--|

(9)

|             |                      |
|-------------|----------------------|
| <b>1637</b> | Gold-plated contacts |
|-------------|----------------------|

## Pictures

### Product picture (catalogue individual photo)



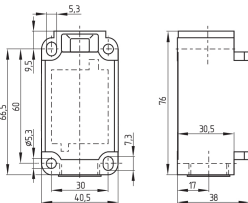
ID: k336hf01

| 697.8 kB | .jpg | 352.778 x 752.122 mm - 1000 x 2132 px - 72 dpi

| 87.5 kB | .png | 74.083 x 157.692 mm - 210 x 447 px - 72 dpi

| 30.2 kB | .jpg | 57.856 x 123.472 mm - 164 x 350 px - 72 dpi

### Dimensional drawing basic component



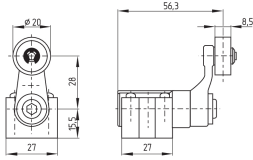
ID: 1-336g01

| 51.4 kB | .cdr |

| 4.1 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi

| 107.0 kB | .jpg | 352.778 x 245.181 mm - 1000 x 695 px - 72 dpi

### Dimensional drawing actuator



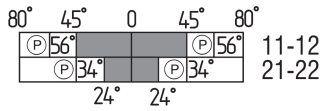
ID: 1h336g01

| 65.6 kB | .cdr |

| 4.1 kB | .png | 74.083 x 51.858 mm - 210 x 147 px - 72 dpi

| 84.5 kB | .jpg | 352.778 x 247.297 mm - 1000 x 701 px - 72 dpi

## Switch travel diagram



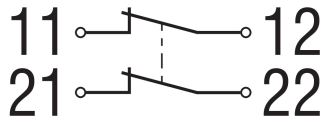
ID: kh335s14

| 34.2 kB | .cdr |

| 2.5 kB | .png | 74.083 x 24.694 mm - 210 x 70 px - 72 dpi

| 79.7 kB | .jpg | 352.778 x 117.122 mm - 1000 x 332 px - 72 dpi

## Diagram



ID: k2o--k01

| 48.8 kB | .jpg | 352.778 x 125.236 mm - 1000 x 355 px - 72 dpi

| 2.3 kB | .png | 74.083 x 26.458 mm - 210 x 75 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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