



## TV14H 235-20ZH

- 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
- Lever angle adjustable in 10° steps

## Data

### Ordering data

|                               |                |
|-------------------------------|----------------|
| Product type description      | TV14H 235-20ZH |
| Article number (order number) | 101145056      |
| eCl@ss number, version 9.0    | 27-27-06-01    |
| eCl@ss number, version 11.0   | 27-27-06-01    |
| eCl@ss number, version 12.0   | 27-27-06-01    |
| ETIM number, version 7.0      | EC000030       |
| ETIM number, version 6.0      | EC000030       |

### General data

|                                      |                                                   |
|--------------------------------------|---------------------------------------------------|
| Standards                            | EN IEC 60947-5-1<br>EN ISO 13849-1<br>BG-GS-ET-15 |
| Housing construction form            | Norm construction design                          |
| Enclosure material                   | Metal, zinc die-cast                              |
| Material of the contacts, electrical | Silver                                            |
| Lever material                       | Metal film                                        |
| Gross weight                         | 196 g                                             |

## General data - Features

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

## Safety classification

|           |                |
|-----------|----------------|
| Standards | EN ISO 13849-1 |
|-----------|----------------|

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

## Mechanical data

|                   |              |
|-------------------|--------------|
| Actuating element | Roller lever |
|-------------------|--------------|

|                 |         |
|-----------------|---------|
| Roller material | Plastic |
|-----------------|---------|

|                          |                       |
|--------------------------|-----------------------|
| Mechanical life, minimum | 20,000,000 Operations |
|--------------------------|-----------------------|

|                          |              |
|--------------------------|--------------|
| Actuating speed, minimum | 4,122 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

|             |                           |
|-------------|---------------------------|
| 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 | 46 mm |
|------------------|-------|

|                 |       |
|-----------------|-------|
| Width of sensor | 30 mm |
|-----------------|-------|

|                  |        |
|------------------|--------|
| Height of sensor | 114 mm |
|------------------|--------|

### Ambient conditions

|                              |              |
|------------------------------|--------------|
| Degree of protection         | IP67<br>IP65 |
| Ambient temperature, minimum | -30 °C       |
| Ambient temperature, maximum | +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 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                                  | Slow action with staggered contacts |
| Switching frequency                                  | 5,000 /h                            |

### Note

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

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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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