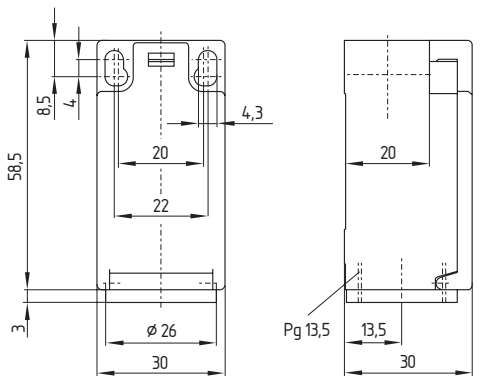




**Features**

- Thermoplastic enclosure
- Double insulated ⧈
- Available with 2 positive break NC contacts
- Snap action with constant contact pressure up to switching point
- Slow action available with overlapping or staggered contacts
- Wiring compartment
- Wide range of alternative actuators
- Actuator heads can be repositioned in steps 4 x 90°
- Angle of roller lever adjustable in 10° steps
- Good resistance to oil and petroleum spirit

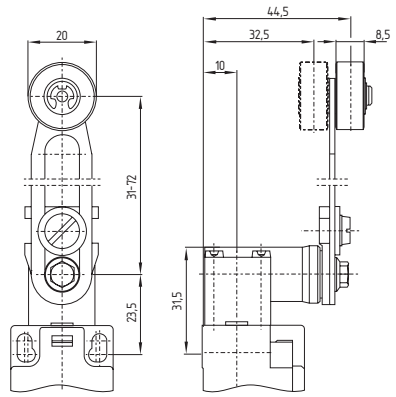
**Info**

- Available with M 12 plug (A-coding), ordering suffix -ST
- Available with M 12 plug (B-coding), ordering suffix -2310
- Cable entry Pg 11, ordering suffix -1946
- Enclosure with transversely slotted mounting holes, ordering suffix -1297
- Cable entry 1/2“ NPT, ordering suffix -NPT
- Cable entry M 20 x 1.5, ordering suffix -M20
- Gold-plated contacts (0.3 µm), ordering suffix -1637
- Metal rollers on enquiry

**Ordering details**

Position switch with safety function / class 1 series Z/T 236 with offset roller lever K with slow action with two NC contacts and cable entry Pg 11:
TK 236-02z-1946

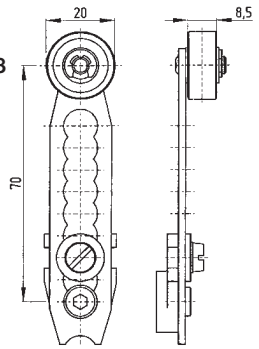
## Adjustable-length roller lever 7H


**Features**

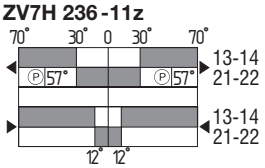
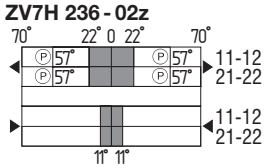
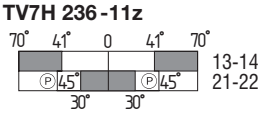
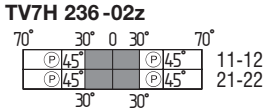
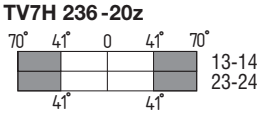
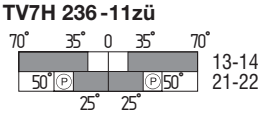
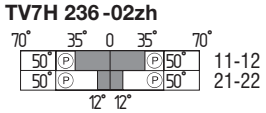
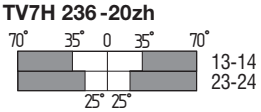
- Lever angle adjustable in 10° steps
- Applicable for positioning duties
- **For safety duties ⊖, positive break, ordering suffix -2138**
- Actuating torque: Min. 15 Ncm
- Positive break torque: 18.5 Ncm
- Actuating speed with actuating angle 30° to lever axis
  Snap action:
  Min. 240 mm/min, max. 1 m/s
  Slow action:
  Min. 1440 mm/min, max. 1 m/s

**Ordering suffix -2138**




**Note**
Positve break angle Ⓟ only valid with ordering suffix -2138

**Info**
- Actuator head gasket, ordering suffix -z

| Contacts/ Switch travel | 1 NO 1 NC | 2 NC | 2 NO |
|---|---|---|---|
| | 13 14 / 21 22 | 11 12 / 21 22 | 13 14 / 23 24 |
| Snap action | **ZV7H 236-11z**  | **ZV7H 236-02z**  | |
| Slow action | **TV7H 236-11z**  | **TV7H 236-02z**  | **TV7H 236-20z**  |
| Slow action, overlapping contacts | **TV7H 236-11zü**  | | |
| Slow action, staggered contacts | | **TV7H 236-02zh**  | **TV7H 236-20zh**  |

# 3.9 Technical data

| | Z/T 235 | Z/T 236 | ES/EM 95 |
|---|---|---|---|
| Standards: | IEC/EN 60947-5-1; EN 1088; BG-GS-ET-15 | | |
| Design: | EN 50047 | | |
| Enclosure material: | Zinc diecasting, | Glass-fibre reinforced thermoplastic, self-extinguishing | |
| | chromated, enamelled | | |
| Protection class: | IP 67 to IEC/EN 60529/DIN VDE 0470-1 | | |
| | | | |
| Contact material: | Silver | | |
| Contact type: | Change-over with double break Zb or 2 NC contacts, with galvanically separated contact bridges | | |
| | NC contacts with positive break | | |
| Switching system: | ⊖ IEC 60947-5-1; Ⓑ BG-GS-ET-15; slow or snap action, NC contacts with positive break | | |
| | Snap action Z or slow action T | | Snap action EM or slow action ES |
| Termination: | Screw terminals for max. 2.5 $mm^2$ cables (including conductor ferrules) | | |
| Rated impulse | | | |
| withstand voltage $U_{imp}$: | 6 kV | | |
| Rated insulation voltage $U_i$: | 500 V | | |
| Thermal test current $I_{th}$: | 10 A | | |
| Utilisation category: | AC-15; DC-13 | | |
| Rated operating | | | |
| current/voltage $I_e/U_e$: | 4 A/230 VAC; 2.5 A/400 VAC; 1 A/500 VAC; 1 A/24 VDC | | |
| Max. fuse rating: | 10 A (slow blow); 16 A (quick blow), 6 A (slow blow) as positive break position switch | | |
| Ambient temperature: | – 30 °C … + 80 °C | | ES 95: – 20 °C … + 65 °C; |
| | | | EM 95: – 30 °C … + 80 °C |
| Mechanical life: | 20 million operations | | 10 million operations |
| Switching frequency: | Max. 5,000/h | | Max. 3,600/h |
| Switching point accuracy: | – | | |
| Actuating speed:** | Z 235: Min. 10 mm/min | Z 236: Min. 10 mm/min | ES 95: Min. 10 mm/min |
| | T 235: Min. 60 mm/min | T 236: Min. 60 mm/min | EM 95: Min. 60 mm/min |
| Contact break for | | | |
| complete stroke: | Z 235: 2 x 2 mm | Z 236: 2 x 2 mm | ES 95: > 2 x 1.25 mm |
| | T 235: 2 x 3.5 mm | T 236: 2 x 3.5 mm | EM 95: min. 2.3 mm, |
| | | | max. 2 x 4.5 mm |
| Bounce duration: | Z 235: < 3 ms | Z 236: < 3 ms | ES 95: < 3 ms |
| | T 235: * | T 236: * | EM 95: * |
| Switchover time: | Z 235: > 5.5 ms | Z 236: > 5.5 ms | ES 95: > 5.5 ms |
| | T 235: * | T 236: * | EM 95: * |
| Positive break force: | See switch description | | – |
| Positive break stroke: | See switch description | | – |

CE

* In accordance with actuating speed
** For the switch plunger