

## Datasheet - ZV7H 256-11z

Position switch / Thermoplastic enclosure 256 - EN 50047 with Actuator / 256 Roller lever 7H



(Minor differences between the printed image and the original product may exist!)

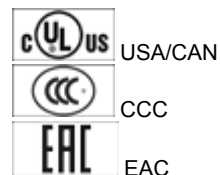
- 2 cable entries M 20 x 1.5
- Snap action with constant contact pressure up to switching point
- Mounting details to EN 50047
- Thermoplastic enclosure
- Double-insulated
- 58 mm x 50,5 mm x 31 mm
- Good resistance to oil and petroleum spirit
- Wide range of alternative actuators
- Actuator heads can be repositioned by 4 x 90°
- **only for positioning tasks**
- Lever angle adjustable in 10° steps

### Ordering details

|                          |               |
|--------------------------|---------------|
| Product type description | ZV7H 256-11Z  |
| Article number           | 101156132     |
| EAN Code                 | 4030661177410 |
| eCl@ss                   | 27-27-26-01   |

### Approval


Approval



### Classification

|                                   |  |
|-----------------------------------|--|
| Standards                         | ISO 13849-1  |
| B10d Normally-closed contact (NC) | 20.000.000   |
| Mission time                      | 20 Years   |
| notice                            | $MTTF_d = \frac{B_{10d}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$ |

### Global Properties

|  |   |
|--|---|
| Permanent light  | Z 256 Rollenschwenkhebel 7H                                       |
| Standards  | IEC 60947-5-1, ISO 13849-1, BG-GS-ET-15                           |
| Compliance with the Directives (Y/N)  | Yes   |
| Suitable for safety functions (Y/N)  | No  |
| Materials  |   |
| - Material of the housings   | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing |
| - Lever material   | Metal film  |
| - Roller material  | Plastic   |
| - Material of the contacts   | Silver  |
| Housing coating  | None  |
| Housing construction form  | Norm construction design  |
| Weight   | 122   |

## Mechanical data

---

|   |   |
|---|---|
| Design of electrical connection                         | Screw connection  |
| Cable section   |   |
| - Min. Cable section                                    | 0,75  |
| - Max. Cable section                                    | 2.5   |
| Mechanical life   | 20.000.000 operations   |
| Switching frequency                                     | max. 5000 /h  |
| notice  | All indications about the cable section are including the conductor ferrules. |
| Design of actuating element                             | Roller lever  |
| actuating torque  | min. 15 Ncm   |
| Bounce duration   | < 3   |
| Switchover time   | < 5.5   |
| Actuating speed with actuating angle 30° to switch axis |   |
| - Min. Actuating speed                                  | 240 mm/min  |
| - Max. Actuating speed                                  | 1 m/s   |


## Ambient conditions

---

|                                  |        |
|----------------------------------|--------|
| Ambient temperature              |        |
| - Min. environmental temperature | -30 °C |
| - Max. environmental temperature | +80 °C |
| Protection class                 | IP67   |

## Electrical data

---

|   |  |
|---|--|
| Design of control element   | Normally open contact (NO), Opener (NC)  |
| Switching principle   | Snap switch element                      |
| - positive break NC contact  |  |
| Number of auxiliary contacts  | 1  |
| Number of safety contacts   | 1  |
| Rated impulse withstand voltage $U_{imp}$   | 6 kV                                     |
| Rated insulation voltage $U_i$  | 500 V                                    |
| Thermal test current $I_{the}$  | 10 A                                     |
| Utilisation category  | AC-15: 230 V / 4 A,<br>DC-13: 24 V / 1 A |
| Required rated short-circuit current  | 1000 A                                   |
| Max. fuse rating  | 6 A gG D-fuse                            |

## Dimensions

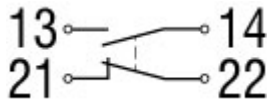
---

#### Dimensions of the sensor

|                    |          |
|--------------------|----------|
| - Width of sensor  | 58 mm    |
| - Height of sensor | 147.5 mm |
| - Length of sensor | 48.75 mm |

#### Diagram

---

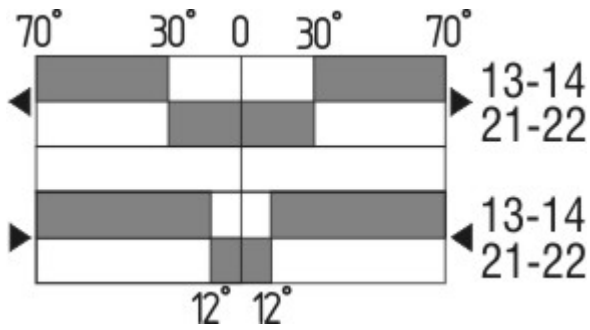


#### Note Diagram

- positive break NC contact
- active
- no active
- Normally-open contact
- Normally-closed contact

#### Switch travel diagram

---



#### Notes Switch travel diagram

- Contact closed
- Contact open
- Setting range
- Break point
- Positive opening sequence/- angle
- VS** adjustable range of NO contact
- VÖ** adjustable range of NC contact
- N** after travel

#### Ordering suffix

---

The applicable ordering suffix is added at the end of the part number of the safety switch.

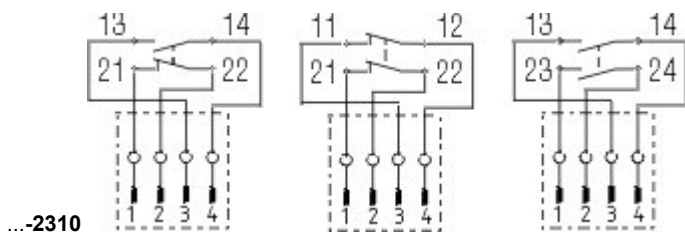
Order example: ZV7H 256-11z-**1637**

....-**1637**

0,3 µm gold-plated contacts

....-**NPT**

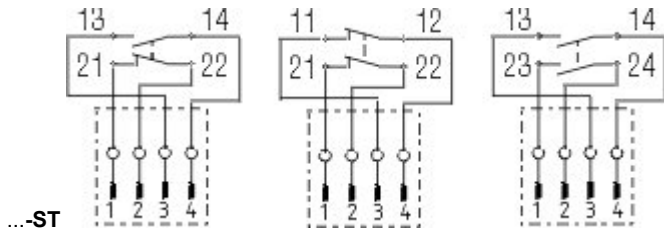
Cable entry NPT 1/2"



M12 connector with B-coding

...-1297

Enclosure with transverse slotted holes



M12 connector with A-coding

...-Z

Actuator head gasket

## Ordering code

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

(1)

Z

T

(2)

S

R

4S

4R

1R

K

3K

4K

K4

1H

7H

10H

12H

14H

AF

(3)

3

5

(4)

02

11

20

(5)

H

UE

Snap action

Slow action

Plunger S

Roller plunger R

Plunger 4S

Roller plunger 4R

Offset roller lever 1R

Offset roller lever K

Angle roller lever 3K

Angle roller lever 4K

Angle roller lever K4

Roller lever 1H

Roller lever 7H

Rod lever 10H

Roller lever 12H

Roller lever 14H

Spring rod lever AF

slim design

large design

2 Opener (NC)

1 Normally open contact (NO) / 1 Opener (NC)

2 Normally open contact (NO), (Switch with 2 NO contacts are not for security tasks)

Slow action with staggered contacts

Slow action with overlapping contacts

|                |  |
|----------------|--|
| <b>(6)</b>     |  |
| <i>without</i> | Cable entry M20  |
| <b>ID</b>      | IDC method of termination                                  |
| <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                                |
| <b>(7)</b>     |  |
| <b>1297</b>    | Enclosure with transverse slotted holes                    |
| <b>(8)</b>     |  |
| <b>2138</b>    | Roller lever 7H for Position switches with safety function |
| <b>(9)</b>     |  |
| <b>1637</b>    | gold-plated contacts                                       |

## Documents

---

**Operating instructions and Declaration of conformity** (en) 160 kB, 15.06.2018

Code: mrlk\_zt235\_236\_en

**Operating instructions and Declaration of conformity** (es) 161 kB, 21.06.2018

Code: mrlk\_ZT235\_236\_es

**Operating instructions and Declaration of conformity** (de) 160 kB, 15.06.2018

Code: mrlk\_ZT235\_236\_de

**Operating instructions and Declaration of conformity** (pl) 198 kB, 27.06.2018

Code: mrlk\_ZT235\_236\_pl

**Operating instructions and Declaration of conformity** (nl) 162 kB, 15.06.2018

Code: mrlk\_ZT235\_236\_nl

**Operating instructions and Declaration of conformity** (pt) 163 kB, 27.06.2018

Code: mrlk\_ZT235\_236\_pt

**Operating instructions and Declaration of conformity** (it) 162 kB, 15.06.2018

Code: mrlk\_ZT235\_236\_it

**Operating instructions and Declaration of conformity** (fr) 164 kB, 15.06.2018

Code: mrlk\_ZT235\_236\_fr

**Operating instructions and Declaration of conformity** (cs) 194 kB, 25.01.2019

Code: mrlk\_ZT235\_236\_cs

**Declaration of conformity** (es) 91 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_es

**Declaration of conformity** (pl) 130 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_pl

**Declaration of conformity** (it) 89 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_it

**Declaration of conformity** (pt) 90 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_pt

**Declaration of conformity (fr)** 89 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_fr

**Declaration of conformity (de)** 581 kB, 07.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_de

**Declaration of conformity (en)** 579 kB, 07.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_en

**Declaration of conformity (nl)** 89 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_nl

**CCC certification (cn)** 4 MB, 11.04.2018

Code: q\_235p02

**CCC certification (en)** 4 MB, 27.10.2017

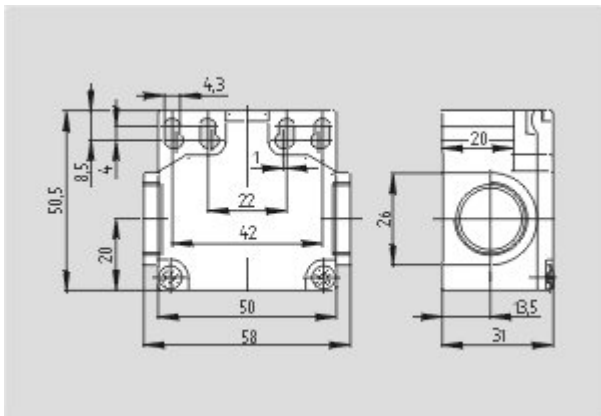
Code: q\_235p01

**EAC certification (ru)** 844 kB, 05.10.2015

Code: q\_6037p17\_ru

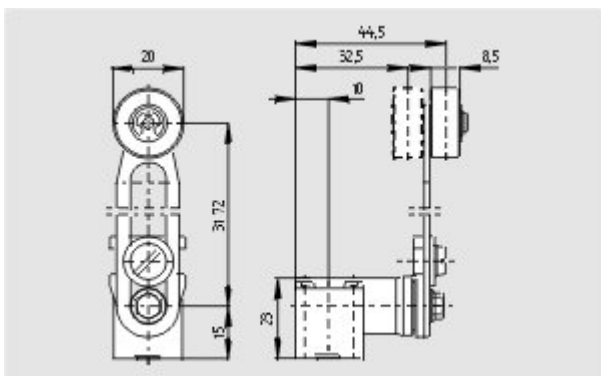
## Images

---



Dimensional drawing (basic component)

---



Dimensional drawing (actuator)

---

K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal

The data and values have been checked thoroughly. Technical modifications and errors excepted.

Generiert am 13.02.2019 - 13:59:29h Kasbase 3.3.0.F.64l