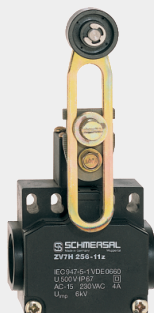


## ZV7H256-11Z-2138



- Double-insulated
- Thermoplastic enclosure
- 58 mm x 50,5 mm x 31 mm
- 2 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°
- Snap action with constant contact pressure up to switching point

### Data

#### Ordering data

|                               |                   |
|-------------------------------|-------------------|
|                               | ZV7H 256-11Z-2138 |
|                               | 101151407         |
| EAN (European Article Number) | 4030661161310     |
| eCl@ss number, Version 9.0    | 27-27-26-01       |

#### Approval - Standards

cULus  
CCC  
EAC

#### General data

|                                      |                                                                   |
|--------------------------------------|-------------------------------------------------------------------|
| Product name                         | Z 256 roller lever 7H-2138                                        |
|                                      | IEC 60947-5-1                                                     |
|                                      | ISO 13849-1                                                       |
|                                      | BG-GS-ET-15                                                       |
| Housing construction form            | Norm construction design                                          |
| Enclosure material                   | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing |
| Material of the contacts, electrical | Silver                                                            |
| Lever material                       | Metal film                                                        |
| Roller material                      | Plastic                                                           |

|              |       |
|--------------|-------|
| Gross weight | 117 g |
|--------------|-------|

#### General data - Features

|                              |     |
|------------------------------|-----|
| Safety functions             | Yes |
| Number of auxiliary contacts | 1   |
| Number of safety contacts    | 1   |

#### Safety appraisal

|              |             |
|--------------|-------------|
|              | ISO 13849-1 |
| Mission Time | 20 Year(s)  |

#### Safety appraisal - Safety outputs

|                                   |                       |
|-----------------------------------|-----------------------|
| B10d Normally-closed contact (NC) | 20,000,000 Operations |
|-----------------------------------|-----------------------|

#### Mechanical data

|                           |                                                         |
|---------------------------|---------------------------------------------------------|
| Actuating element         | Roller lever                                            |
| Mechanical life, minimum  | 20,000,000 Operations                                   |
| Actuating speed, minimum  | 240 mm/min                                              |
| Actuating speed, maximum  | 1 m/s                                                   |
| Note (Actuating speed)    | Actuating speed with actuating angle 30° to switch axis |
| Actuating torque, minimum | 0.2 Nm                                                  |
| Positive break torque     | 0.2 Nm                                                  |

#### Mechanical data - Connection technique

|                      |                                                                               |
|----------------------|-------------------------------------------------------------------------------|
| Terminal Connector   | Screw connection                                                              |
|                      | 0.75 mm <sup>2</sup>                                                          |
|                      | 2.5 mm <sup>2</sup>                                                           |
| Note (Cable section) | All indications about the cable section are including the conductor ferrules. |

#### Mechanical data - Dimensions

|                  |          |
|------------------|----------|
| Height of sensor | 147.5 mm |
| Length of sensor | 49.1 mm  |
| Width of sensor  | 58 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 NO contact, NC contact  
Switching principle Snap switch element  
Bounce duration, maximum 3 ms  
Switching frequency 5,000 /h  
Switchover time, maximum 5.5 ms

## 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: k256hf02

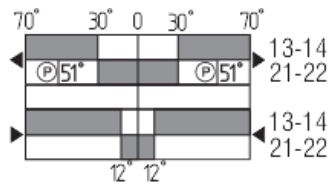
| 533,0 kB | .jpg | 189.089 x 366.183 mm - 536 x 1038

Pixel - 72 dpi

| 99,0 kB | .png | 74.083 x 143.228 mm - 210 x 406

Pixel - 72 dpi

| Diagramm/Product/Travel | Diagramm | Product | Travel |
|-------------------------|----------|---------|--------|
| Diagramm                | Diagramm |         |        |
| Product                 |          | Product |        |
| Travel                  |          |         | Travel |



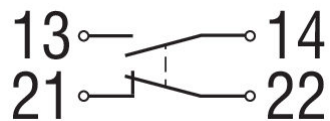
ID: kh235s06

| 2,9 kB | .png | 74.083 x 40.217 mm - 210 x 114 Pixel  
- 72 dpi

| 27,0 kB | .cdr |

| 94,9 kB | .jpg | 352.778 x 191.911 mm - 1000 x 544  
Pixel - 72 dpi

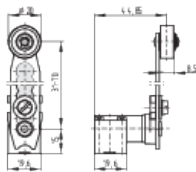
**Graphic/Product/Contact**



ID: k1o1sk01

| 52,2 kB | .jpg | 352.778 x 143.581 mm - 1000 x 407  
Pixel - 72 dpi

**Dimension/Product/Actuator**



ID: 1h236g02

| 31,7 kB | .cdr |

| 9,1 kB | .png | 74.083 x 51.506 mm - 210 x 146 Pixel  
- 72 dpi

| 89,0 kB | .jpg | 352.778 x 245.181 mm - 1000 x 695  
Pixel - 72 dpi

K.A. Schmersal GmbH & Co. KG, Möddinghofe 3, D-42279 Wuppertal

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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