

## Datasheet - EX-TV7H 355-01/01Z-2138-3G/D



Position switches with safety function / EX-355 Metal enclosure with Actuator / EX-355 Roller lever 7H-2138



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

- Metal enclosure
- Wide range of alternative actuators
- Good resistance to oil and petroleum spirit
- 66,7 mm x 76 mm x 38 mm
- Actuator heads can be repositioned by 4 x 90°
- Including Ex-certified screwed cable gland and screw plug
- Mounting details to EN 50041
- 3 cable entries M 20 x 1.5
- Ex certified

### Ordering details

|                          |                              |
|--------------------------|------------------------------|
| Product type description | EX-TV7H 355-01/01Z-2138-3G/D |
| Article number           | EX-TV7H 355-01/01Z-2138-3G/D |
| EAN Code                 |                              |
| eCl@ss                   | 27-27-26-01                  |

### Approval

Approval




### Classification

|                                   |  |
|-----------------------------------|--|
| Standards                         | EN 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 | EX-T 355 Rollenschwenkhebel 7H 2138                              |
| Standards       | IEC 60947-5-1, EN 60079-0, EN 60079-15, EN 60079-31, BG-GS-ET-15 |

|   |                          |
|---|--------------------------|
| Compliance with the Directives (Y/N)  | Yes                      |
| Suitable for safety functions (Y/N)   | Yes                      |
| Materials   |                          |
| - Material of the housings  | light alloy die-casting  |
| - Lever material  | Metal film               |
| - Material of the contacts  | Silver                   |
| - Roller material   | Plastic                  |
| Housing coating   | painted                  |
| Housing construction form   | Norm construction design |
| Weight  |                          |

## Mechanical data

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|   |   |
|---|---|
| Design of electrical connection                         | Screw connection  |
| Cable cross-section of the cable glands                 |   |
| - Min. Cable cross-section of the cable glands          | 7   |
| - Max. Cable cross-section of the cable glands          | 12  |
| Cable section   |   |
| - Min. Cable section                                    | 0,75  |
| - Max. Cable section                                    | 2.5   |
| AWG-Number  | 13  |
| Mechanical life   | 30.000.000 operations   |
| Switching frequency                                     | 5000  |
| notice  | All indications about the cable section are including the conductor ferrules. |
| Design of actuating element                             | Roller lever  |
| actuating torque  | 31  |
| Bounce duration   | < 2   |
| Switchover time   | in accordance with actuating speed  |
| Impact energy   | 1   |
| Actuating speed with actuating angle 30° to switch axis |   |
| - Min. Actuating speed                                  |   |
| - Max. Actuating speed                                  | 2.5   |


## Ambient conditions

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|                                  |      |
|----------------------------------|------|
| Ambient temperature              |      |
| - Min. environmental temperature | -20  |
| - Max. environmental temperature | +60  |
| Protection class                 | IP67 |

## Electrical data

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|   |  |
|---|--|
| Design of control element   | Opener (NC)                              |
| Switching principle   | Creep circuit element                    |
| - positive break NC contact  |  |
| Number of auxiliary contacts  | 0  |
| Number of safety contacts   | 2  |
| 1 Normally-closed contact right   |  |
| 1 Normally-closed contact left  |  |
| Rated impulse withstand voltage U <sub>imp</sub>  | 6 kV                                     |
| Rated insulation voltage U <sub>i</sub>   | 500 V                                    |
| Thermal test current  | 10 A                                     |
| Utilisation category  | AC-15: 230 V / 4 A,<br>DC-13: 24 V / 1 A |

Max. fuse rating

6 A gG D-fuse

## ATEX

|   |  |
|---|--|
| EX-marking                                | EX II 3G Ex nC IIC T5 Gc X, EX II 3D Ex tc IIIC T90°C Dc X |
| Explosion protection categories for gases | ATEX gas ex-protection, Cat. 3                             |
| Explosion protection Zones for gases      | 2  |
| Explosion protected category for dusts    | ATEX dust ex-protection, Cat. 3                            |
| Explosion protection Zones for dusts      | 22   |

## Dimensions

|                          |       |
|--------------------------|-------|
| Dimensions of the sensor |       |
| - Width of sensor        | 40.5  |
| - Height of sensor       | 173.5 |
| - Length of sensor       | 57.25 |

## notice

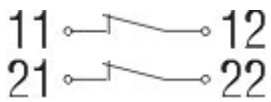
On version TVH 355-01/01z positive break only to one side.

The positioning of the head must be carried out in factory.

## Keywords

Keywords Ex, EEx, ATEX, Ex 235, Ex 235, 235 Ex, 235ex, 235ex, ATEX 235

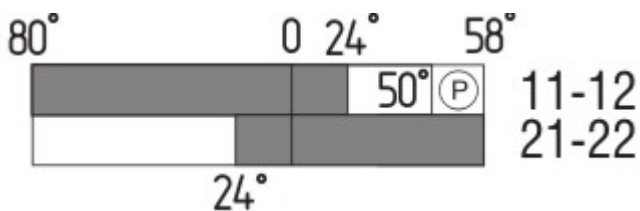
## Diagram



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

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

Order example: EX-TV7H 355-01/01Z-2138-3G/D-**1297**

....-**1297** Enclosure with transverse slotted holes

....-**1637** 0,3 µm gold-plated contacts

## Documents

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**Operating instructions and Declaration of conformity (es)** 373 kB, 24.01.2018

Code: mrl\_ex-zt355\_es

**Operating instructions and Declaration of conformity (jp)** 572 kB, 05.07.2011

Code: mrl\_ex-zt355\_jp

**Operating instructions and Declaration of conformity (fr)** 376 kB, 01.02.2018

Code: mrl\_ex-zt355\_fr

**Operating instructions and Declaration of conformity (en)** 380 kB, 11.01.2019

Code: mrl\_ex-zt355\_en

**Operating instructions and Declaration of conformity (it)** 371 kB, 16.02.2018

Code: mrl\_ex-zt355\_it

**Operating instructions and Declaration of conformity (pl)** 392 kB, 16.02.2018

Code: mrl\_ex-zt355\_pl

**Operating instructions and Declaration of conformity (de)** 337 kB, 11.01.2019

Code: mrl\_ex-zt355\_de

**Operating instructions and Declaration of conformity (pt)** 378 kB, 23.01.2018

Code: mrl\_ex-zt355\_pt

**Operating instructions and Declaration of conformity (nl)** 375 kB, 31.01.2018

Code: mrl\_ex-zt355\_nl

**Brochure (de)** 7 MB, 19.10.2016

Code: b\_atep01\_de

**Brochure (en)** 7 MB, 19.10.2016

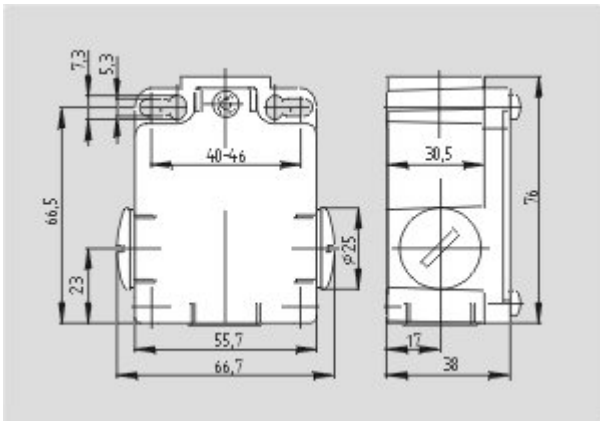
Code: b\_atep01\_en

**Brochure (it)** 3 MB, 20.07.2007

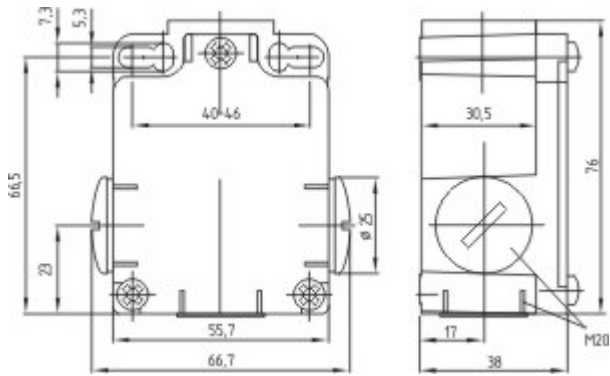
Code: b\_atep05

## Images

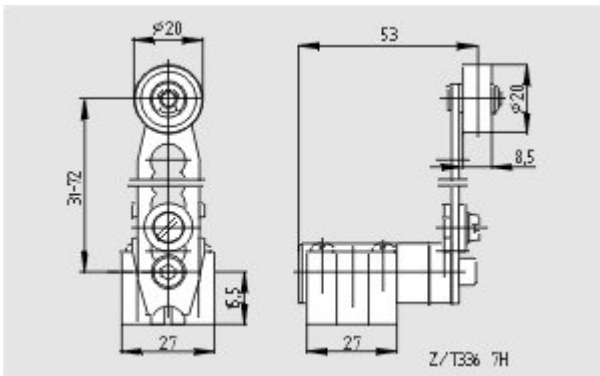
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Dimensional drawing (basic component)



Dimensional drawing (basic component)



Dimensional drawing (actuator)