

## Datasheet - EX-TS 355-20ZH-3G/D



Position switches with safety function / EX-355 Metal enclosure with Actuator / EX-355 Plunger S



(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-TS 355-20ZH-3G/D   |
| Article number           | 10EX-TS 355-20ZH-3G/D |
| EAN Code                 |                       |
| eCl@ss                   | 27-27-26-01           |

### Approval

Approval



### Classification

|              |  |
|--------------|--|
| Standards    | ISO 13849-1  |
| 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 Druckbolzen S   |
| 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) | No                       |
| Actuator type                       | B to EN 50041            |
| Materials                           |                          |
| - Material of the housings          | light alloy die-casting  |
| - Material of the contacts          | Silver                   |
| 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                    | Plunger   |
| Actuating force                                | 17  |
| Bounce duration                                | < 2   |
| Switchover time                                | in accordance with actuating speed  |
| Impact energy                                  | 1   |
| Actuating speed for vertical actuation         |   |
| - Min. Actuating speed                         |   |
| - Max. Actuating speed                         | 0,5   |

## 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       | Normally open contact (NO)               |
| Switching principle             | Slow action with staggered contacts      |
| Number of auxiliary contacts    | 2  |
| Number of safety contacts       | 0  |
| Rated impulse withstand voltage | 6  |
| Rated insulation voltage        | 500                                      |
| 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

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|            |  |
|------------|--|
| 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  
 Explosion protection Zones for gases  
 Explosion protected category for dusts  
 Explosion protection Zones for dusts

ATEX gas ex-protection, Cat. 3  
 2  
 ATEX dust ex-protection, Cat. 3  
 22

## Dimensions

Dimensions of the sensor

|                    |       |
|--------------------|-------|
| - Width of sensor  | 40.5  |
| - Height of sensor | 103.5 |
| - Length of sensor | 38    |

## notice

Switch with 2 NO contacts are not for security tasks

## Keywords

Keywords

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

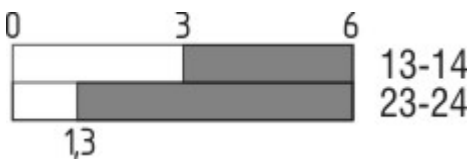
## Diagram



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

The applicable ordering suffix is added at the end of the part number of the safety switch.  
 Order example: EX-TS 355-20ZH-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

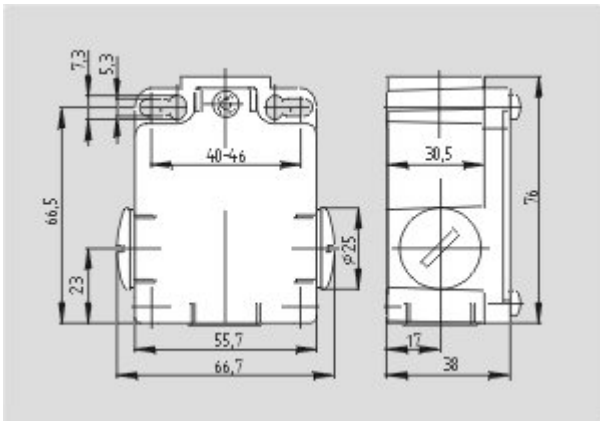
Code: b\_atep01\_en

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

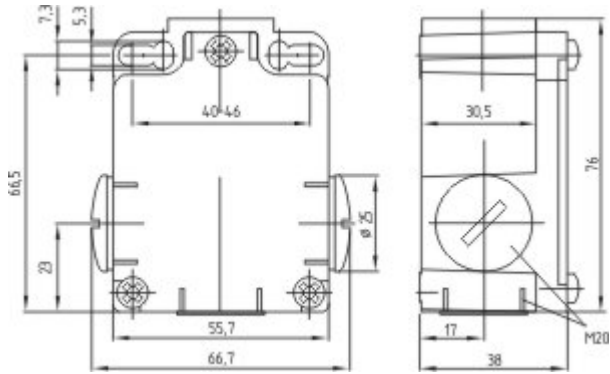
Code: b\_atep05

## Images

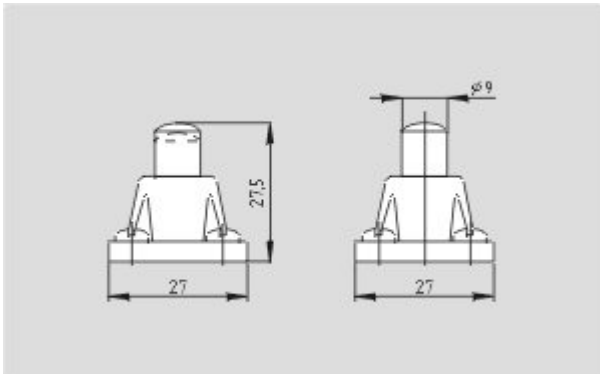
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Dimensional drawing (basic component)



Dimensional drawing (basic component)



Dimensional drawing (actuator)