

Datasheet - EX-TR 355-03ZH-3G/D



Position switches with safety function / EX-355 Metal enclosure with Actuator / EX-355 Roller plunger r



- 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

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

Ordering details

| | |
|--------------------------|-----------------------|
| Product type description | EX-TR 355-03ZH-3G/D |
| Article number | 10EX-TR 355-03ZH-3G/D |
| EAN Code | |
| eCl@ss | 27-27-26-01 |

Approval

Approval




Classification

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

Global Properties

| | |
|-----------------|------------------------------------------------------------------|
| Permanent light | EX-T 355 Rollendruckbolzen R |
| 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 |
| Actuator type | C 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

| | |
|---------------------------------------------------------|-------------------------------------------------------------------------------|
| 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 plunger |
| Actuating force | 17 |
| 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 | 0,5 |

Ambient conditions

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

Electrical data

| | |
|---------------------------------|------------------------------------------|
| Design of control element | Opener (NC) |
| Switching principle | Slow action with staggered contacts |
| Number of auxiliary contacts | 0 |
| Number of safety contacts | 3 |
| Rated impulse withstand voltage | 4 |
| Rated insulation voltage | 250 |
| Thermal test current | 10 A |
| Utilisation category | AC-15: 230 V / 4 A, 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

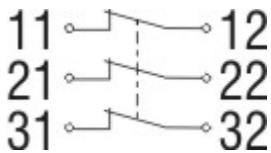
Dimensions of the sensor

| | |
|--------------------|-------|
| - Width of sensor | 40.5 |
| - Height of sensor | 116.6 |
| - Length of sensor | 38 |

Keywords

| | |
|----------|---------------------------------------------------------------|
| Keywords | Ex, EEx, ATEX, Ex 235, Ex 235, 235 Ex, 235ex, 235ex, ATEX 235 |
|----------|---------------------------------------------------------------|

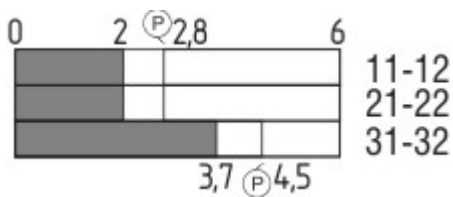
Diagram



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-TR 355-03ZH-3G/D-1297

...-1297

Enclosure with transverse slotted holes

...-1637

0,3 µm gold-plated contacts

Documents

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

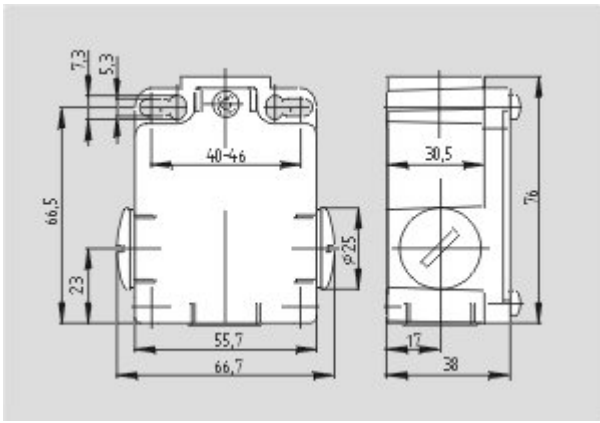
Brochure (en) 7 MB, 19.10.2016

Code: b_atep01_en

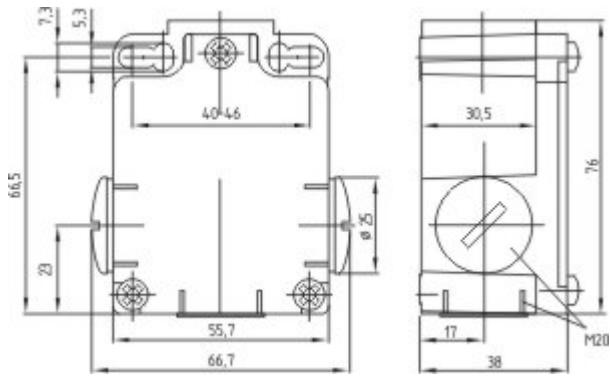
Brochure (it) 3 MB, 20.07.2007

Code: b_atep05

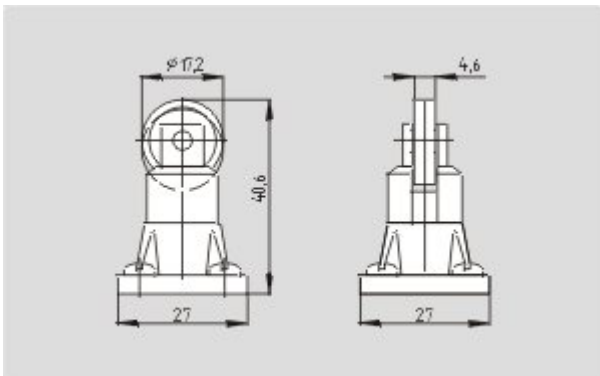
Images



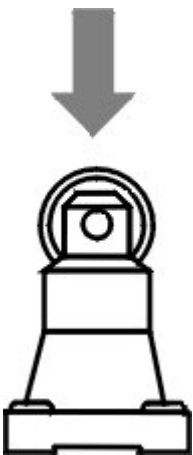
Dimensional drawing (basic component)



Dimensional drawing (basic component)



Dimensional drawing (actuator)



Operating principle