

## Datasheet - EX-T4V10H 335-02Z-3G/D



Position switches with safety function / EX-335 Metal enclosure with Actuator / EX-335 Rod lever 10H



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

- Explosion protection for ATEX Zones 2 and 22
- Metal enclosure
- Wide range of alternative actuators
- Good resistance to oil and petroleum spirit
- 40,5 mm x 76 mm x 38 mm
- Actuator heads can be repositioned by 4 x 90°
- Ex-certified screwed cable gland
- Mounting details to EN 50041
- 1 Cable entry M 20 x 1.5
- Ex certified
- **only for positioning tasks**

### Ordering details

Product type description	EX-T4V10H 335-02Z-3G/D
Article number	101212922
EAN Code	4030661350288
eCl@ss	27-27-26-01

### Approval

Approval	ATEX
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### Classification

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

### Global Properties

Permanent light	T 335 Stabschwenkhebel 10H
Standards	EN 60079-0, EN 60079-15, EN 60079-31, EN 60947-5-1, BG-GS-ET-15
Compliance with the Directives (Y/N)	Yes

Suitable for safety functions (Y/N)	No
Materials	
- Material of the housings	Aluminium
- Lever material	Metal film
- Material of the rod	Plastic
- Material of the contacts	Silver
Housing coating	painted
Housing construction form	Norm construction design
Weight	298

## 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	max. 5000 /h
notice	All indications about the cable section are including the conductor ferrules.
Design of actuating element	Rod lever
actuating torque	min. 31 Ncm
Bounce duration	< 2
Switchover time	in accordance with actuating speed
Impact energy	max. 4 J
Actuating speed with actuating angle 30° to switch axis	
- Min. Actuating speed	
- Max. Actuating speed	2.5 m/s

## 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	Slow action
- positive break NC contact 	
Number of auxiliary contacts	0
Number of safety contacts	2
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, DC-13: 24 V / 1 A
Max. fuse rating	6 A gG D-fuse

## ATEX

EX-marking	EX II 3D Ex tc IIC T90°C Dc X EX II 3G Ex nC IIC T5 Gc X
Explosion protection categories for gases	3G
Explosion protection Zones for gases	2
Explosion protected category for dusts	3D
Explosion protection Zones for dusts	22

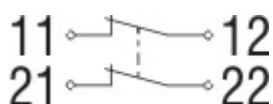
## Dimensions

Dimensions of the sensor	
- Width of sensor	40.5
- Height of sensor	111.5 (without Rod)
- Length of sensor	38






## Keywords

Keywords	Ex, EEx, ATEX, Ex 235, Ex 235, 235 Ex, 235ex, 235ex, ATEX 235
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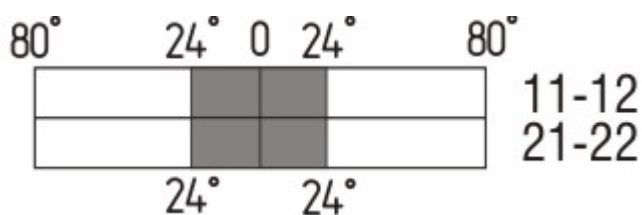
## Diagram








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-T4V10H 335-02Z-3G/D-1183

....-1183	with Aluminium - Rod
....-1297	Enclosure with transverse slotted holes
....-1637	0,3 µm gold-plated contacts

## Ordering code

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EX-(1)(2) 335-(3)Z(4)-(5)-(6)-(7)-3G/D

<b>(1)</b>	
<b>Z</b>	Snap action
<b>T</b>	Slow action
<b>(2)</b>	
<b>S</b>	Plunger S
<b>R</b>	Roller plunger R
<b>H</b>	Roller lever H
<b>10H</b>	Rod lever 10H
<b>7H</b>	Roller lever 7H
<b>7H-2138</b>	Roller lever 7H for Position switches with safety function
<b>1K</b>	Offset roller lever 1K
<b>3K</b>	Angle roller lever 3K
<b>(3)</b>	
<b>11</b>	1 Normally open contact (NO) / 1 Opener (NC)
<b>02</b>	2 Opener (NC)
<b>20</b>	2 Normally open contact (NO) ( <i>Switch with 2 NO contacts are not for security tasks</i> )
<b>01/01</b>	1 Opener (NC) left / 1 Opener (NC) right
<b>12</b>	1 Normally open contact (NO) / 2 Opener (NC)
<b>03</b>	3 Opener (NC)
<b>(4)</b>	
<b>H</b>	Slow action with staggered contacts
<b>UE</b>	Slow action with overlapping contacts
<b>(5)</b>	
<b>1297</b>	Enclosure with transverse slotted holes
<b>(6)</b>	
<b>2138</b>	Roller lever 7H for Position switches with safety function
<b>(7)</b>	
<b>1637</b>	gold-plated contacts

## Documents

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**Operating instructions and Declaration of conformity (jp)** 614 kB, 18.08.2017

Code: mrl\_ex-zt335-3gd\_jp

**Operating instructions and Declaration of conformity (de)** 303 kB, 16.08.2018

Code: mrl\_ex-zt335-3gd\_de

**Operating instructions and Declaration of conformity (it)** 339 kB, 27.08.2018

Code: mrl\_ex-zt335-3gd\_it

**Operating instructions and Declaration of conformity (en)** 354 kB, 16.08.2018

Code: mrl\_ex-zt335-3gd\_en

**Operating instructions and Declaration of conformity (pt)** 361 kB, 27.08.2018

Code: mrl\_ex-zt335-3gd\_pt

**Operating instructions and Declaration of conformity (fr)** 359 kB, 27.08.2018

Code: mrl\_ex-zt335-3gd\_fr

**Operating instructions and Declaration of conformity (pl)** 394 kB, 27.08.2018

Code: mrl\_ex-zt335-3gd\_pl

**Operating instructions and Declaration of conformity (es)** 357 kB, 27.08.2018

Code: mrl\_ex-zt335-3gd\_es

**Operating instructions and Declaration of conformity (nl)** 356 kB, 27.08.2018

Code: mrl\_ex-zt335-3gd\_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

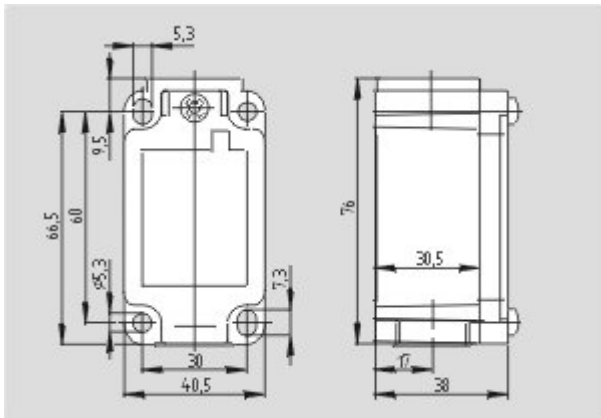
Code: b\_atep05

**Brochure (es)** 5 MB, 18.08.2009

Code: b\_atep09

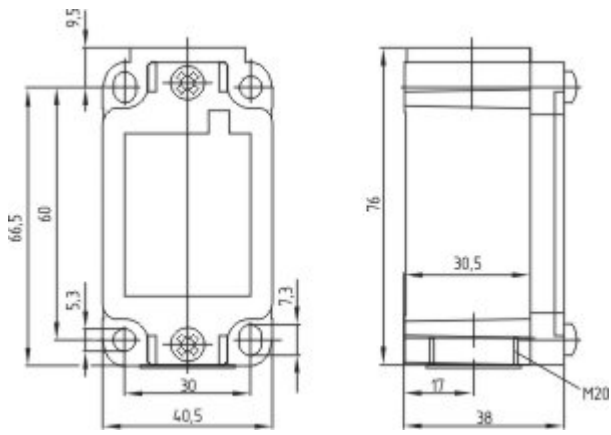
## Images

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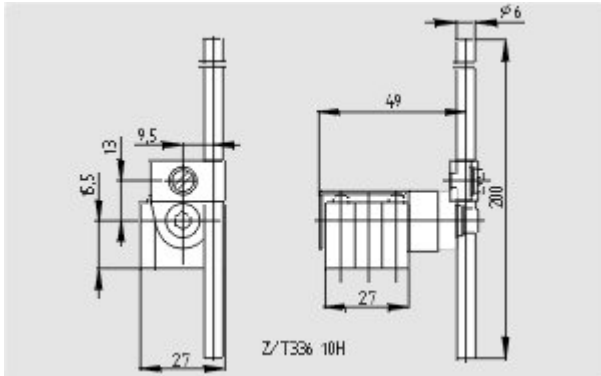


Dimensional drawing (basic component)

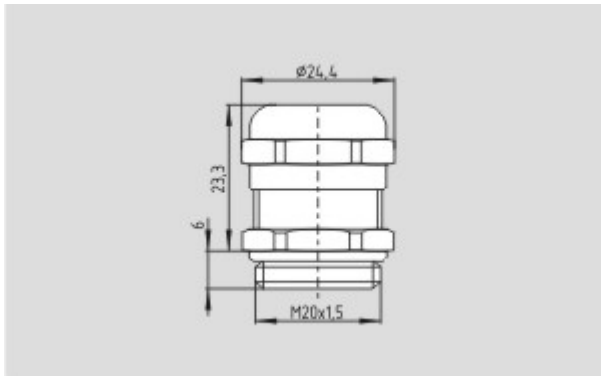
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Dimensional drawing (basic component)



Dimensional drawing (actuator)



Dimensional drawing (miscellaneous)

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

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