

Datasheet - EX-TV10H 235-20ZH-3D



Position switches with safety function / EX-235 Metal enclosure with Actuator / EX-235 Rod lever 10H



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

- Ex certified
- Metal enclosure
- Wide range of alternative actuators
- Good resistance to oil and petroleum spirit
- 30 mm x 63,5 mm x 30 mm
- Actuator heads can be repositioned by 4 x 90°
- Mounting details to EN 50047
- Ex-certified screwed cable gland
- 1 Cable entry M 20 x 1.5
- **only for positioning tasks**
- Lever angle adjustable in 10° steps

Ordering details

Product type description	EX-TV10H 235-20ZH-3D
Article number	EX-TV10H 235-20ZH-3D
EAN Code	
eCl@ss	27-27-26-01

Approval

Approval




EEX

Classification

Standards	EN ISO 13849-1
B10d Normally open contact (NO)	1.000.000
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 235 Stabschwenkhebel 10H
Standards	EN 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

Materials

- Material of the housings
- Lever material
- Material of the rod
- Material of the contacts

Zink

Metal film

Plastic

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
- Max. Cable cross-section of the cable glands

6

12

Cable section

- Min. Cable section
- Max. Cable section

0,75

2.5

AWG-Number

13

Mechanical life

20.000.000 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. 15 Ncm

Bounce duration

in accordance with actuating speed

Switchover time

in accordance with actuating speed

Actuating speed with actuating angle 30° to switch axis

- Min. Actuating speed
- Max. Actuating speed

4122 mm/min

1 m/s

Ambient conditions

Ambient temperature

- Min. environmental temperature
- Max. environmental temperature

-20

+60

Protection class

IP67

Electrical data

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 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

Marking	EX II 3D Ex tc IIIC 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	30
- Height of sensor	98.5 (without Rod)
- Length of sensor	43.5

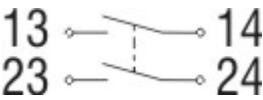
notice

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
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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 code

EX-(1)(2) 235-(3)Z-(4)-(5)-(6)-(7)-3D

(1)

Z	Snap action
T	Slow action

(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

(3)

02	2 Opener (NC)
11	1 Normally open contact (NO) / 1 Opener (NC)
20	2 Normally open contact (NO), <i>(Switch with 2 NO contacts are not for security tasks)</i>

(4)

H	Slow action with staggered contacts
UE	Slow action with overlapping contacts

(5)

1297	Enclosure with transverse slotted holes
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(6)

2138	Roller lever 7H for Position switches with safety function
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(7)

1637	gold-plated contacts
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Documents

Operating instructions and Declaration of conformity (pt) 360 kB, 24.01.2018

Code: mrl_ex-zt235_pt

Operating instructions and Declaration of conformity (pl) 379 kB, 31.01.2018

Code: mrl_ex-zt235_pl

Operating instructions and Declaration of conformity (nl) 355 kB, 31.01.2018

Code: mrl_ex-zt235_nl

Operating instructions and Declaration of conformity (jp) 435 kB, 10.02.2015

Code: mrl_ex-zt235_jp

Operating instructions and Declaration of conformity (da) 359 kB, 31.01.2018

Code: mrl_ex-zt235_da

Operating instructions and Declaration of conformity (es) 355 kB, 24.01.2018

Code: mrl_ex-zt235_es

Operating instructions and Declaration of conformity (it) 355 kB, 31.01.2018

Code: mrl_ex-zt235_it

Operating instructions and Declaration of conformity (de) 303 kB, 13.11.2017

Code: mrl_ex-zt235_de

Operating instructions and Declaration of conformity (en) 351 kB, 13.11.2017

Code: mrl_ex-zt235_en

Operating instructions and Declaration of conformity (fr) 360 kB, 31.01.2018

Code: mrl_ex-zt235_fr

Brochure (de) 7 MB, 19.10.2016

Code: b_atep01_de

Brochure (en) 7 MB, 19.10.2016

Code: b_atep01_en

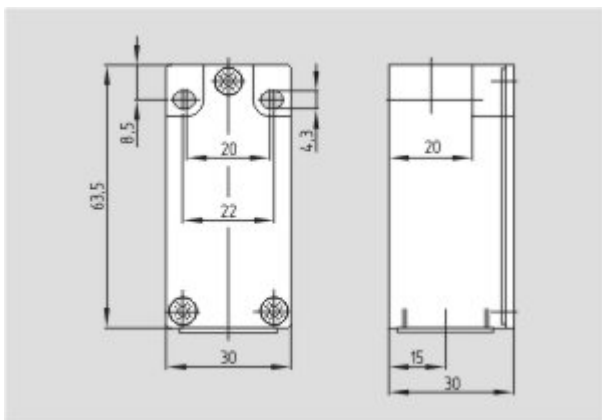
Brochure (it) 3 MB, 20.07.2007

Code: b_atep05

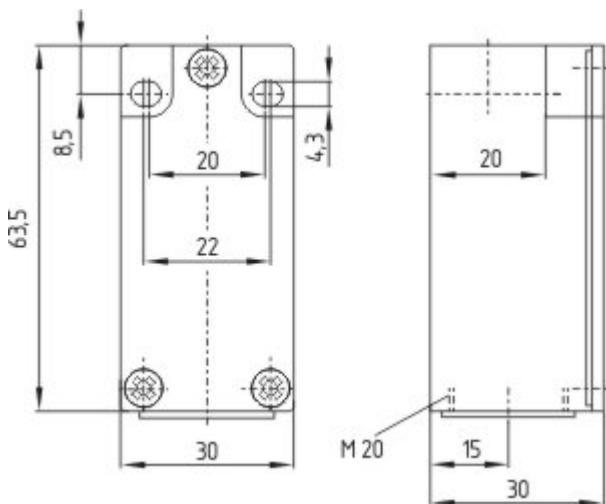
Brochure (es) 5 MB, 18.08.2009

Code: b_atep09

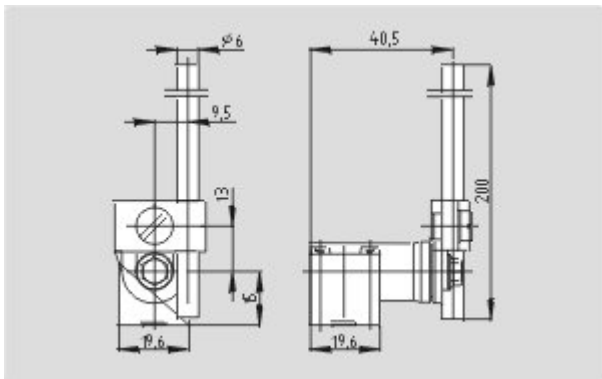
Images



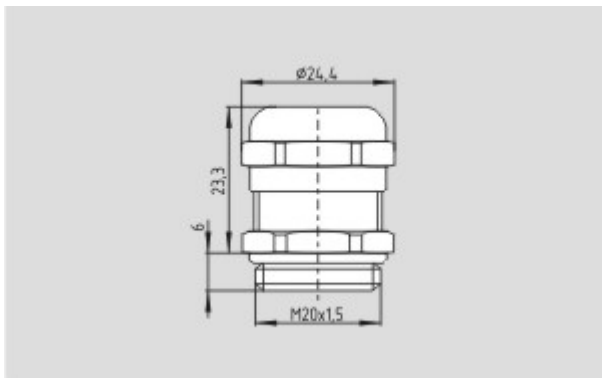
Dimensional drawing (basic component)



Dimensional drawing (basic component)



Dimensional drawing (actuator)



Dimensional drawing (miscellaneous)