

Datasheet - EX-T3K 335-20ZH-3G/D



Position switches with safety function / EX-335 Metal enclosure with Actuator / EX-335 Angle roller lever 3K



(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
- Actuation from bottom parallel to the switch, therefore only suitable for small housings.

Ordering details

Product type description	EX-T3K 335-20ZH-3G/D
Article number	EX-T3K 335-20ZH-3G/D
EAN Code	
eCl@ss	27-27-26-01

Approval

Approval	ATEX
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Classification

Standards	EN ISO 13849-1
Mission time	20 Years
notice	$MTTF_d = \frac{B_{rod}}{0,1 \times n_{op}}$ $n_{op} = \frac{d_{ap} \times h_{cp} \times 3600 \text{ s/h}}{t_{cycle}}$

Global Properties

Permanent light	EX-T 335 Winkelhebel 3K
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
- 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	max. 5000 /h
notice	All indications about the cable section are including the conductor ferrules.
Design of actuating element	Angle roller lever
Actuating force	min. 17 N
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	0,5 m/s

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-20
- Max. environmental temperature	+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

EX-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	58.25
- Height of sensor	121.5
- 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

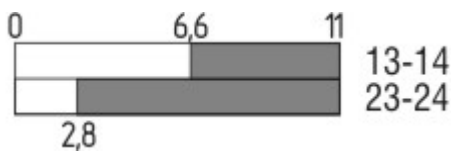
Diagram



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-T3K 335-20ZH-3G/D-1297

...-1297

Enclosure with transverse slotted holes

...-1637

0,3 µm gold-plated contacts

Ordering code

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

(1)

Z

Snap action

T

Slow action

(2)

S

Plunger S

R

Roller plunger R

H

Roller lever H

10H

Rod lever 10H

7H

Roller lever 7H

7H-2138

Roller lever 7H for Position switches with safety function

1K

Offset roller lever 1K

3K

Angle roller lever 3K

(3)

11

1 Normally open contact (NO) / 1 Opener (NC)

02

2 Opener (NC)

20

2 Normally open contact (NO) (*Switch with 2 NO contacts are not for security tasks*)

01/01

1 Opener (NC) left / 1 Opener (NC) right

12

1 Normally open contact (NO) / 2 Opener (NC)

03

3 Opener (NC)

(4)

H

Slow action with staggered contacts

UE

Slow action with overlapping contacts

(5)

1297

Enclosure with transverse slotted holes

(6)

2138

Roller lever 7H for Position switches with safety function

(7)

1637

gold-plated contacts

Documents

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

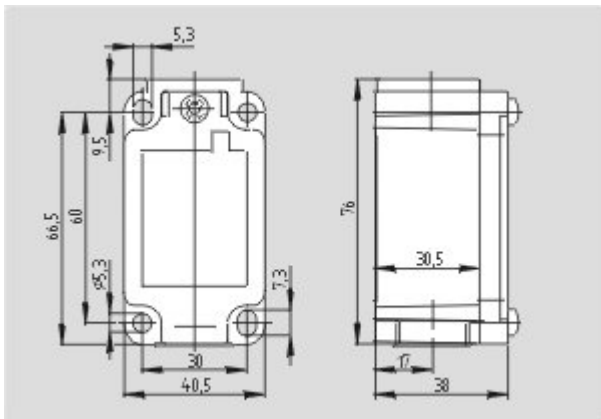
Brochure (it) 3 MB, 20.07.2007

Code: b_atep05

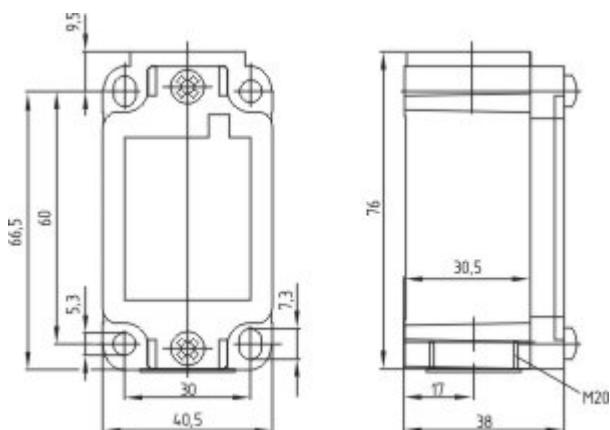
Brochure (es) 5 MB, 18.08.2009

Code: b_atep09

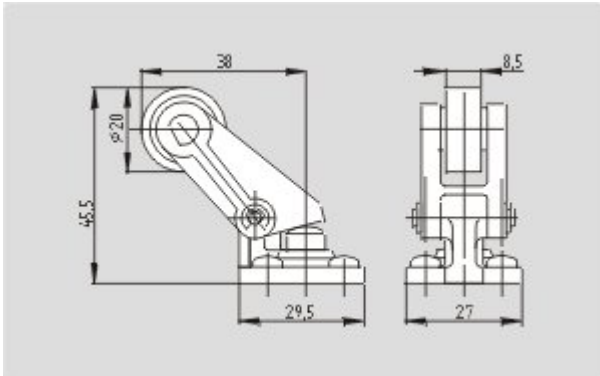
Images



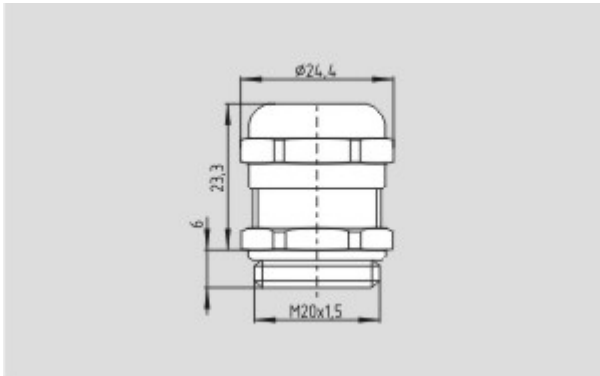
Dimensional drawing (basic component)



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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