

Datasheet - T3C 235-02Z-ST

Safety switch for hinged guards / Flap safety switches / T.C 235 / T.C 235 left-hand model



- Metal enclosure
- Good resistance to oil and petroleum spirit
- 30 mm x 88,5 mm x 30 mm
- Actuator heads can be repositioned by 4 x 90°
- Connector M12, 4-pole

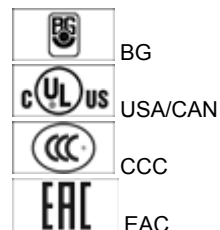
(Minor differences between the printed image and the original product may exist!)

Ordering details

Product type description	T3C 235-02Z-ST
Article number	T3C 235-02Z-ST
EAN Code	
eCl@ss	27-27-26-01

Approval

Approval




Classification

Standards	EN ISO 13849-1
B10d Normally-closed contact (NC)	20.000.000
Mission time notice	20 Years

$$MTTF_d = \frac{B_{rod}}{0,1 \times n_{op}}$$

$$n_{op} = \frac{d_{op} \times h_{op} \times 3600 \text{ s/h}}{t_{cycle}}$$

Global Properties

Permanent light	T.C 235 Linksausführung
Standards	EN 60947-5-1, BG-GS-ET-15
Compliance with the Directives (Y/N) 	Yes
Materials	
- Material of the housings	zinc die-cast
- Lever material	Stainless steel
- Material of the contacts	Silver
Housing coating	painted

Mechanical data

Design of electrical connection	Connector M12
Mechanical life	> 1.000.000 operations
Switching frequency	max. 5000 /h
Design of actuating element	Swivel lever
Opening angle	180 °
Positive break angle	12.5 °
Positive break torque	18.5 Ncm
actuator	78 mm

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-30 °C
- Max. environmental temperature	+80 °C
Protection class	IP67

Electrical data

Design of control element	Opener (NC)
Switching principle	Creep circuit element
Number of auxiliary contacts	0
Number of safety contacts	2
Rated impulse withstand voltage U_{imp}	0,8 kV
Rated insulation voltage U_i	50 V
Thermal test current I_{the}	10 A
Utilisation category	AC-15: 50 V / 4 A, DC-13: 24 V / 1 A
Max. fuse rating	6 A gG D-fuse
notice	Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.

ATEX

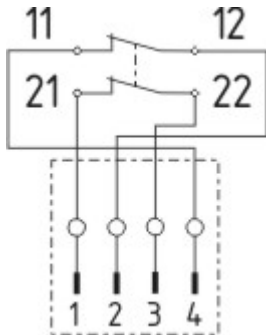
Explosion protection categories for gases	None
Explosion protected category for dusts	None

Dimensions

Dimensions of the sensor

- Width of sensor	93
- Height of sensor	94.5
- Length of sensor	30

Diagram

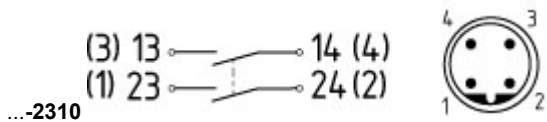


Note Diagram

- positive break NC contact
- active
- no active
- Normally-open contact
- Normally-closed contact

Ordering suffix

The applicable ordering suffix is added at the end of the part number of the safety switch.
Order example: T3C 235-02Z-ST-2310



M12 connector with B-coding
 Rated impulse withstand voltage U_{imp} : 0,8 kV
 Rated insulation voltage U_i : 50 V
 Operating current I_e : AC-15 50 V / 4 A
 Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.

Ordering code

T(1)C 235-(2)Z-(3)

(1)	
3	left-hand model
4	Swing-door version
5	right-hand model
(2)	
01	1 Opener (NC)
02	2 Opener (NC)
11	1 Normally open contact (NO) / 1 Opener (NC)
(3)	
without	Cable entry M20
ST	M12 connector with A-coding (Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.)
ST-2310	M12 connector with B-coding (Caution! The versions with connector may

Documents

Operating instructions and Declaration of conformity (pl) 317 kB, 17.07.2017

Code: mrl_tc235_236_pl

Operating instructions and Declaration of conformity (it) 263 kB, 10.05.2017

Code: mrl_tc235_236_it

Operating instructions and Declaration of conformity (pt) 283 kB, 13.04.2017

Code: mrl_tc235_236_pt

Operating instructions and Declaration of conformity (es) 282 kB, 03.05.2017

Code: mrl_tc235_236_es

Operating instructions and Declaration of conformity (jp) 378 kB, 09.10.2017

Code: mrl_tc235_236_jp

Operating instructions and Declaration of conformity (nl) 314 kB, 05.07.2018

Code: mrl_tc235_236_nl

Operating instructions and Declaration of conformity (en) 279 kB, 28.03.2017

Code: mrl_tc235_236_en

Operating instructions and Declaration of conformity (de) 267 kB, 28.03.2017

Code: mrl_tc235_236_de

Operating instructions and Declaration of conformity (fr) 286 kB, 17.05.2017

Code: mrl_tc235_236_fr

BG-test certificate (de) 140 kB, 02.10.2015

Code: z_tc2p01

BG-test certificate (en) 140 kB, 02.10.2015

Code: z_tc2p02

CCC certification (cn) 4 MB, 11.04.2018

Code: q_235p02

CCC certification (en) 4 MB, 27.10.2017

Code: q_235p01

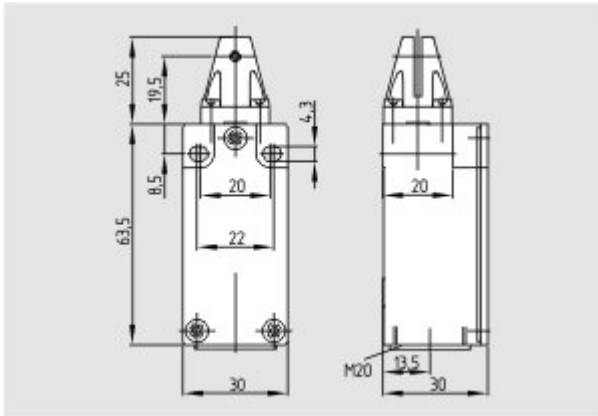
EAC certification (ru) 844 kB, 05.10.2015

Code: q_6037p17_ru

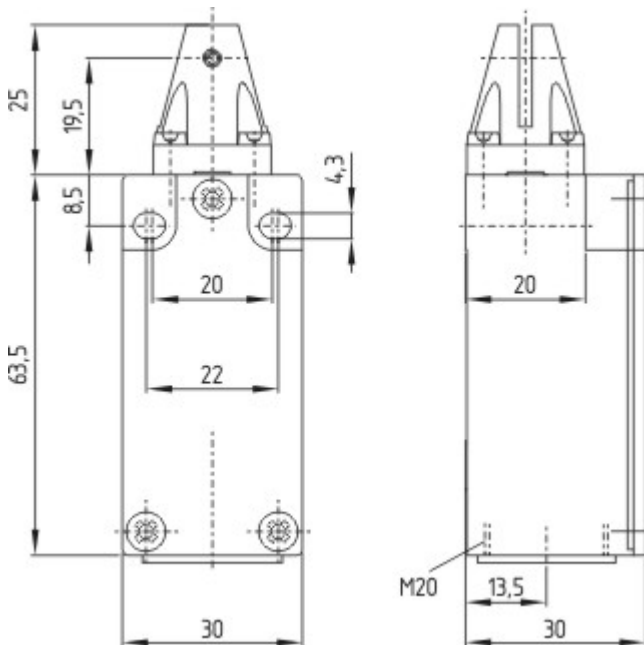
Images



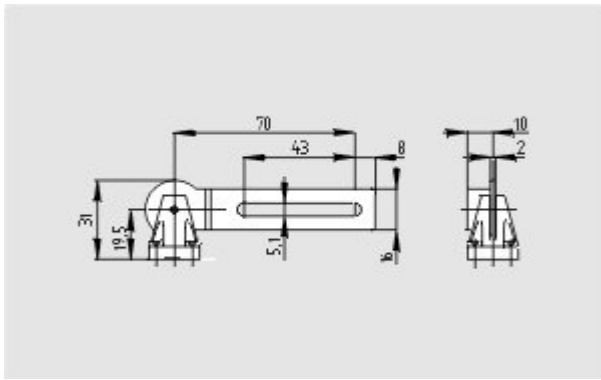
Product photo



Dimensional drawing (basic component)



Dimensional drawing (basic component)



Dimensional drawing (miscellaneous)

System components

Connector



A-K4M12

- Pre-wired cable
- 4-pole



S-K4M12

- Connector without cable
- 4-pole

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

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