

## Datasheet - T4C 235-11Z-ST

Safety switch for hinged guards / Flap safety switches / T.C 235 / T.C 235 Swing-door version



- 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

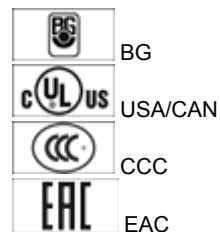
(Minor differences between the printed image and the original product may exist!)

### Ordering details

Product type description	T4C 235-11Z-ST
Article number	T4C 235-11Z-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

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

## Mechanical data

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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	2 x 90 °
Positive break angle	12.5 °
Positive break torque	18.5 Ncm
actuator	78 mm

## Ambient conditions

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

## Electrical data

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Design of control element	Normally open contact (NO), Opener (NC)
Switching principle	Creep circuit element
Number of auxiliary contacts	1
Number of safety contacts	1
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

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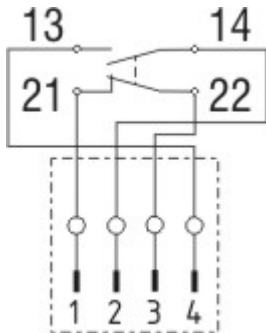
Explosion protection categories for gases	None
Explosion protected category for dusts	None

## Dimensions

## Dimensions of the sensor

- Width of sensor	30
- Height of sensor	161
- Length of sensor	30

## Diagram



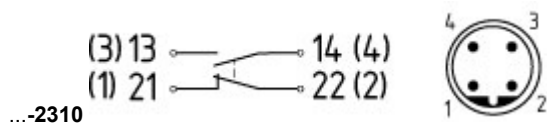
### Note Diagram

- 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: T4C 235-11Z-ST-2310



M12 connector with B-coding

Rated impulse withstand voltage  $U_{imp}$ : 0,8 kV

Rated insulation voltage  $U_i$ : 50 V

Rated operating voltage  $U_e$ : 50 V

Operating current  $I_e$ : 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

4

5

(2)

01

02

11

(3)

without

ST

left-hand model

Swing-door version

right-hand model

1 Opener (NC)

2 Opener (NC)

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

Cable entry M20

M12 connector with A-coding (Caution! The versions with connector may only be used in PELV circuits to EN 60204-1.)

## Documents

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**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

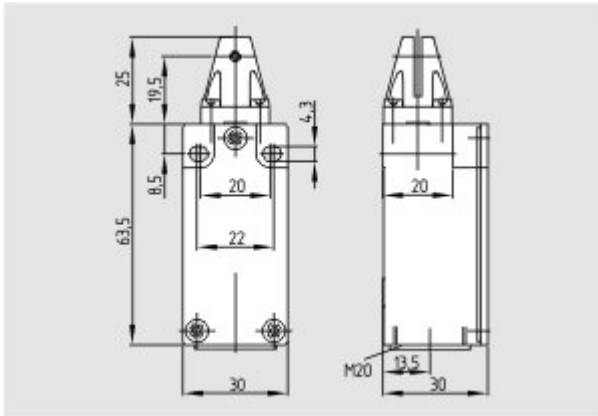
Code: q\_6037p17\_ru

## Images

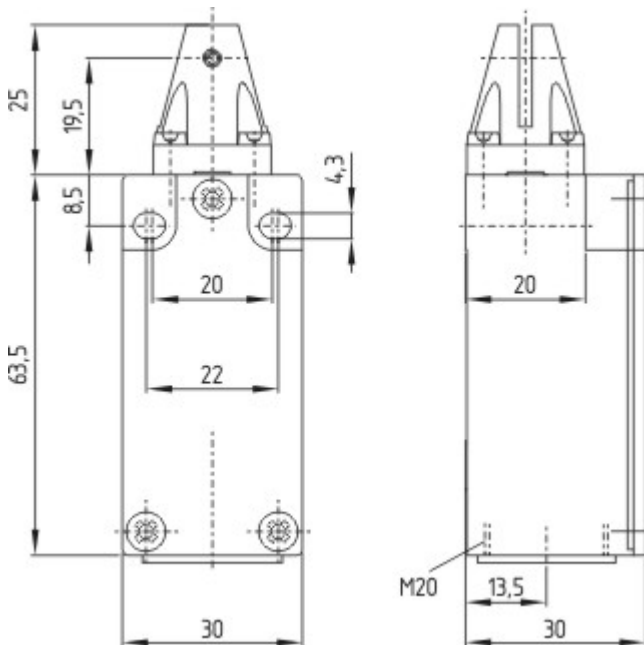
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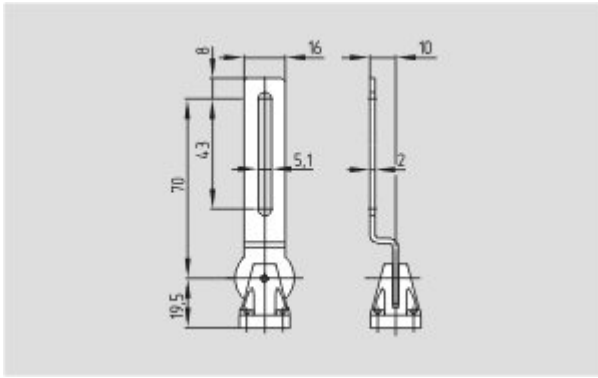
Product photo



Dimensional drawing (basic component)



Dimensional drawing (basic component)



Dimensional drawing (miscellaneous)

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## System components

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### 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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