

## Datasheet - T1R 256-11z



Position switch / Thermoplastic enclosure 256 - EN 50047 with Actuator / 256 Offset roller lever 1r



- 2 cable entries M 20 x 1.5
- Mounting details to EN 50047
- Thermoplastic enclosure
- Double-insulated
- 58 mm x 50,5 mm x 31 mm
- Good resistance to oil and petroleum spirit
- Wide range of alternative actuators
- Actuator heads can be repositioned by 4 x 90°

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

### Ordering details

Product type description	T1R 256-11Z
Article number	101112710
EAN Code	4030661274072
eCl@ss	27-27-26-01

### Approval


Approval



### Classification

Standards	ISO 13849-1
B10d Normally-closed contact (NC)	20.000.000
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	T 256 Rollenhebel 1R
Standards	IEC 60947-5-1, ISO 13849-1, BG-GS-ET-15
Compliance with the Directives (Y/N) 	Yes
Suitable for safety functions (Y/N)	Yes
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
- Material of the contacts	Silver
Housing coating	None
Housing construction form	Norm construction design
Weight	80


## Mechanical data

Design of electrical connection	Screw connection
Cable section	
- Min. Cable section	0,75
- Max. Cable section	2.5
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	Offset roller lever
Actuating force	min. 9 N
Bounce duration	in accordance with actuating speed
Switchover time	in accordance with actuating speed
Positive break force	19 N
Actuating speed with actuating angle 30° to switch axis	
- Min. Actuating speed	160 mm/min
- Max. Actuating speed	1 m/s

## Ambient conditions

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

## Electrical data

Design of control element	Normally open contact (NO), Opener (NC)
Switching principle	Creep circuit element
- positive break NC contact 	
Number of auxiliary contacts	1
Number of safety contacts	1
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
Required rated short-circuit current	1000 A
Max. fuse rating	6 A gG D-fuse

## Dimensions

Dimensions of the sensor

- Width of sensor 58 mm
- Height of sensor 78.5 mm
- Length of sensor 31 mm

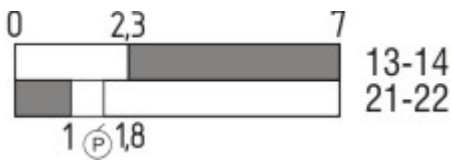
Diagram



Note Diagram

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

Switch travel diagram



Notes Switch travel diagram

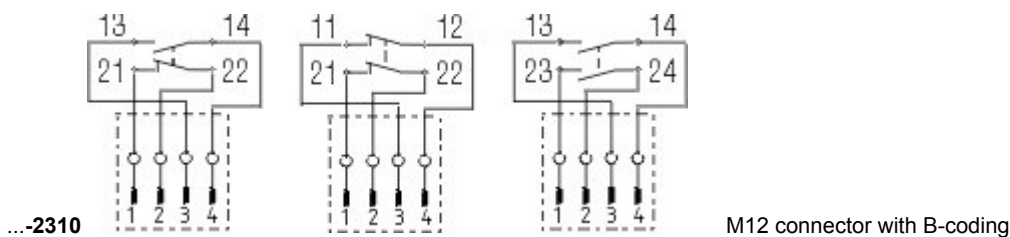
- Contact closed
- Contact open
- Setting range
- Break point
- Positive opening sequence/- angle
- VS** adjustable range of NO contact
- VÖ** adjustable range of NC contact
- N** after travel

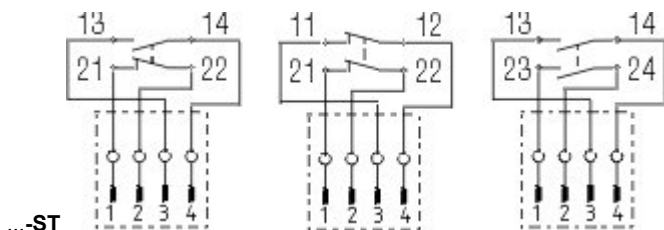
Ordering suffix

The applicable ordering suffix is added at the end of the part number of the safety switch.  
Order example: T1R 256-11z-1637

...-1637 0,3 µm gold-plated contacts

...-NPT Cable entry NPT 1/2"





M12 connector with A-coding

Ordering code

(1)(2) 2(3)6-(4)Z(5)-(6)-(7)-(8)-(9)

(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
AF	Spring rod lever AF
(3)	
3	slim design
5	large design
(4)	
02	2 Opener (NC)
11	1 Normally open contact (NO) / 1 Opener (NC)
20	2 Normally open contact (NO), (Switch with 2 NO contacts are not for security tasks)
(5)	
H	Slow action with staggered contacts
UE	Slow action with overlapping contacts
(6)	
without	Cable entry M20
ID	IDC method of termination
NPT	cable entry NPT 1/2"
ST	M12 connector with A-coding
ST-2310	M12 connector with B-coding
(7)	
1297	Enclosure with transverse slotted holes
(8)	

2138	Roller lever 7H for Position switches with safety function
(9)	
1637	gold-plated contacts

## Documents

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**Operating instructions and Declaration of conformity** (en) 160 kB, 15.06.2018

Code: mrlk\_zt235\_236\_en

**Operating instructions and Declaration of conformity** (es) 161 kB, 21.06.2018

Code: mrlk\_ZT235\_236\_es

**Operating instructions and Declaration of conformity** (de) 160 kB, 15.06.2018

Code: mrlk\_ZT235\_236\_de

**Operating instructions and Declaration of conformity** (pl) 198 kB, 27.06.2018

Code: mrlk\_ZT235\_236\_pl

**Operating instructions and Declaration of conformity** (nl) 162 kB, 15.06.2018

Code: mrlk\_ZT235\_236\_nl

**Operating instructions and Declaration of conformity** (pt) 163 kB, 27.06.2018

Code: mrlk\_ZT235\_236\_pt

**Operating instructions and Declaration of conformity** (it) 162 kB, 15.06.2018

Code: mrlk\_ZT235\_236\_it

**Operating instructions and Declaration of conformity** (fr) 164 kB, 15.06.2018

Code: mrlk\_ZT235\_236\_fr

**Operating instructions and Declaration of conformity** (cs) 194 kB, 25.01.2019

Code: mrlk\_ZT235\_236\_cs

**Declaration of conformity** (es) 91 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_es

**Declaration of conformity** (pl) 130 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_pl

**Declaration of conformity** (it) 89 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_it

**Declaration of conformity** (pt) 90 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_pt

**Declaration of conformity** (fr) 89 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_fr

**Declaration of conformity** (de) 581 kB, 07.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_de

**Declaration of conformity** (en) 579 kB, 07.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_en

**Declaration of conformity** (nl) 89 kB, 18.06.2018

Code: KAS\_konfi\_nsr\_zt2xx-3xx\_nl

**CCC certification** (cn) 4 MB, 11.04.2018

Code: q\_235p02

**CCC certification** (en) 4 MB, 27.10.2017

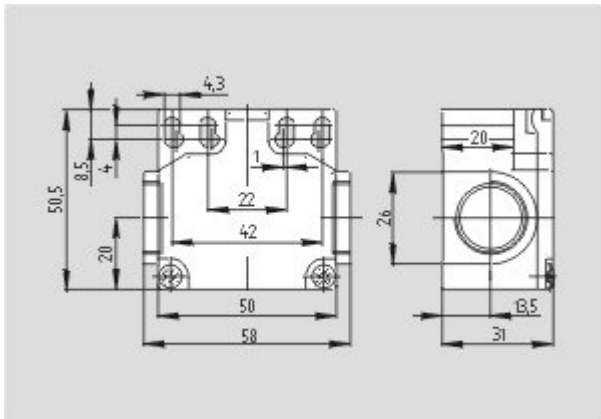
Code: q\_235p01

**EAC certification** (ru) 844 kB, 05.10.2015

Code: q\_6037p17\_ru

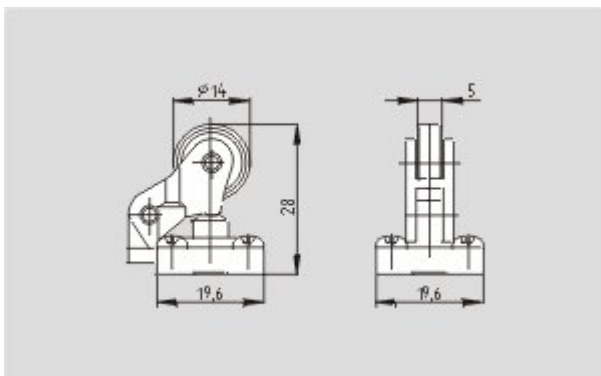
## Images

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Dimensional drawing (basic component)

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Dimensional drawing (actuator)

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

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