

Datasheet - ZK4 256-11z



Position switch / Thermoplastic enclosure 256 - DIN EN 50047 with Actuator / 256 Angle roller lever K4

Preferred typ



- 2 cable entries M 20 x 1.5
- Snap action with constant contact pressure up to switching point
- 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°

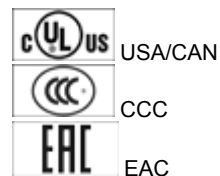
(Minor differences between the printed image and the original product may exist!)

Ordering details

Product type description	ZK4 256-11Z
Article number	101167215
Strobe lamp	4030661218281
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	Z 256 Winkelhebel K4
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
- Actuator	≤ 100 ms
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	85


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	Angle roller lever
Actuating force	min. 6 N
Bounce duration	< 3
Switchover time	< 5.5
Positive break force	16
Actuating speed with actuating angle 30° to switch axis	
- Min. Actuating speed	56 mm/min
- Max. Actuating speed	1 m/s

Ambient conditions

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

Electrical data

Design of control element	Normally open contact (NO), Opener (NC)
Switching principle	Snap switch element
- positive break NC contact 	
Number of auxiliary contacts	1
Number of safety contacts	1
Operating current I _e	0,7 A
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
- Height of sensor	94
- Length of sensor	31

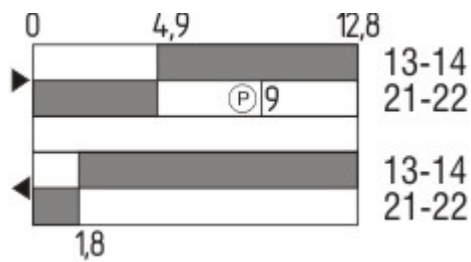
Diagram



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

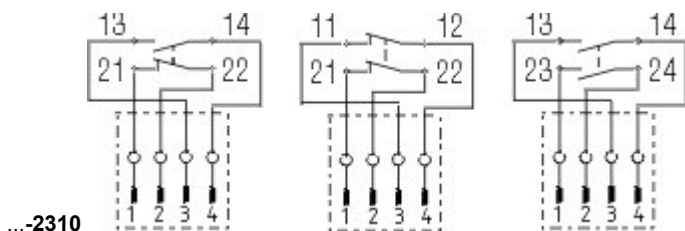
Ordering suffix

The applicable ordering suffix is added at the end of the part number of the safety switch.

Order example: ZK4 256-11z-**1637**

...-**1637** 0,3 µm gold-plated contacts

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

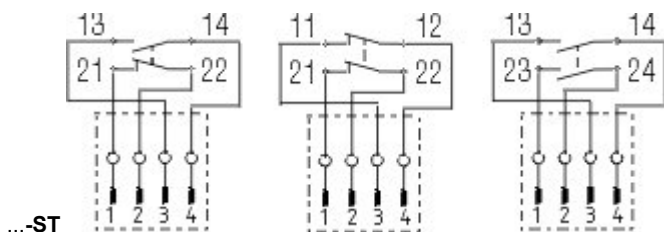


...-2310

M12 connector with B-coding

...-1297

Enclosure with transverse slotted holes



...-ST

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

Operating instructions and Declaration of conformity (da) 304 kB, 21.08.2013

Code: mrl_ZT235_236_da

Operating instructions and Declaration of conformity (de) 302 kB, 09.03.2016

Code: mrl_ZT235_236_de

Operating instructions and Declaration of conformity (en) 334 kB, 09.03.2016

Code: mrl_ZT235_236_en

Operating instructions and Declaration of conformity (pl) 354 kB, 25.07.2016

Code: mrl_ZT235_236_pl

Operating instructions and Declaration of conformity (pt) 321 kB, 25.07.2016

Code: mrl_ZT235_236_pt

Operating instructions and Declaration of conformity (es) 318 kB, 22.11.2016

Code: mrl_ZT235_236_es

Operating instructions and Declaration of conformity (br) 323 kB, 01.03.2017

Code: mrl_ZT235_236_br

Operating instructions and Declaration of conformity (it) 314 kB, 25.07.2016

Code: mrl_ZT235_236_it

Operating instructions and Declaration of conformity (fr) 320 kB, 25.07.2016

Code: mrl_ZT235_236_fr

Operating instructions and Declaration of conformity (jp) 627 kB, 22.05.2017

Code: mrl_ZT235_236_jp

Operating instructions and Declaration of conformity (nl) 318 kB, 16.04.2014

Code: mrl_ZT235_236_nl

CCC certification (cn) 4 MB, 11.04.2018

Code: q_235p02

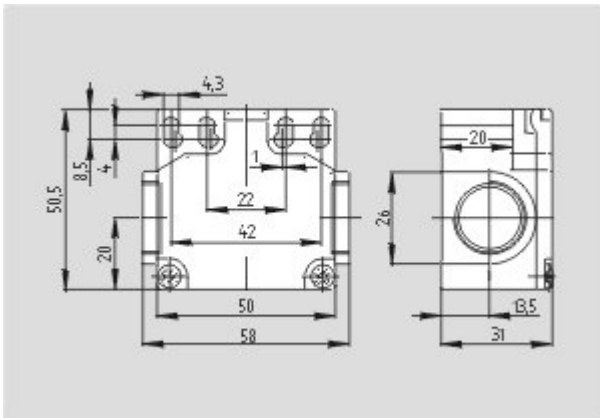
CCC certification (en) 4 MB, 27.10.2017

Code: q_235p01

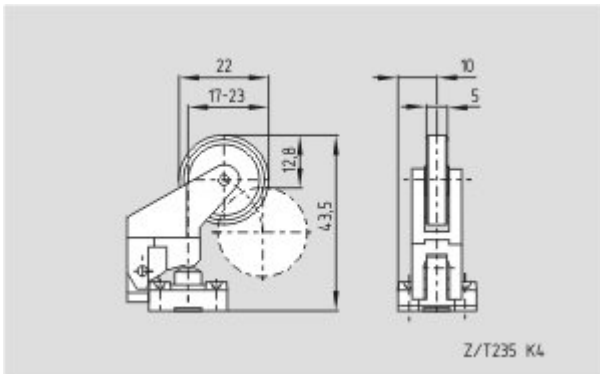
EAC certification (ru) 1 MB, 15.03.2018

Code: q_avp04

Images



Dimensional drawing (basic component)



Dimensional drawing (actuator)
