

Datasheet - SE-304C

Safety-related tactile sensor / Safety edges / Monitoring of safety edges



☒ Preferred typ



- To monitor 1 ... 4 safety edge(s)
- 1 safety contact, STOP 0
- 1 Signalling output

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

Ordering details

Product type description	SE-304C
Article number	101165883
EAN Code	4030661293622
eCl@ss	27-27-92-15

Approval

Approval




Classification

Standards	EN ISO 13849-1
PL	up d
Control category	up 3
PFH value	1.01 x 10 ⁻⁷ /h
- notice	up to max. 5000 switching cycles/year
Mission time	20 Years

Global Properties

Permanent light	SE-304C
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Standards	EN ISO 13856-2, EN ISO 13849-1
Compliance with the Directives (Y/N) 	Yes
Product utilisation up to category in accordance with EN 954	3
Climatic stress	EN ISO 13856-2
Mounting	snaps onto standard DIN rail to EN 60715
- terminals	IP20
- enclosure	IP40
- Clearance	IP54
Materials	
- Material of the housings	Plastic, thermoplastic
Weight	175
Start conditions	Automatic or Start button
Start input (Y/N)	Yes
Feedback circuit (Y/N)	No
Reset after disconnection of supply voltage (Y/N)	Yes
Automatic reset function	Yes
Reset with edge detection (Y/N)	Yes
Pull-in delay	
- ON delay with reset button	100 ... 2000
Response time	< 17

Mechanical data

Connection type	Screw connection
Cable section	
- Min. Cable section	
- Max. Cable section	2 x 1.5
Detachable terminals (Y/N)	No
Mechanical life	> 10.000.000 operations
notice	All indications about the cable section are including the conductor ferrules.
Resistance to vibration	10 ... 55 HZ, Amplitude 0,15 mm

Ambient conditions

Ambient temperature	
- Min. environmental temperature	+5
- Max. environmental temperature	+55
Protection class	
Air clearances and creepage distances To IEC/EN 60664-1	
- Rated impulse withstand voltage U_{imp}	4 kV
- Overvoltage category	III To VDE 0110
- Degree of pollution	2 To VDE 0110

Electromagnetic compatibility (EMC)

EMC rating	conforming to EMC Directive
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Electrical data

Rated DC voltage for controls	
- Max. rated DC voltage for controls	21.6
- Max. rated DC voltage for controls	28.8
Rated AC voltage for controls, 50 Hz	
- Min. rated AC voltage for controls, 50 Hz	21.6

- Max. rated AC voltage for controls, 50 Hz	28.8
Rated AC voltage for controls, 60 Hz	
- Min. rated AC voltage for controls, 60 Hz	-
- Max. rated AC voltage for controls, 60 Hz	-
Power consumption	< 4
Type of actuation	AC/DC
Rated operating voltage U _e	24 VDC +20% / -10%; 24 VAC +10% / -10%
Operating current I _e	approx. 500 mA (for 4 Safety edges)
Frequency range	50
Electronic protection (Y/N)	Yes

Inputs

Monitored inputs

- Short-circuit recognition (Y/N)	Yes
- Wire breakage detection (Y/N)	Yes
- Earth connection detection (Y/N)	Yes
Cable length	200

Outputs

Stop category	0
Number of safety contacts	1
Number of auxiliary contacts	0
Number of signalling outputs	1
Switching capacity	
- Switching capacity of the safety contacts	230 VAC / 2 A; 24 VDC / 2 A
Fuse rating	
- Protection of the safety contacts	2 A gG D-fuse
Utilisation category	AC-15: 230 V / 2 A; DC-13: 24 V / 2 A
Number of undelayed semi-conductor outputs with signaling function	1
Number of undelayed outputs with signaling function (with contact)	0
Number of delayed semi-conductor outputs with signaling function.	0
Number of delayed outputs with signalling function (with contact).	0
Number of secure undelayed semi-conductor outputs with signaling function	0
Number of secure, undelayed outputs with signaling function, with contact.	1
Number of secure, delayed semi-conductor outputs with signaling function	0
Number of secure, delayed outputs with signaling function (with contact).	0

LED switching conditions display

LED switching conditions display (Y/N)	Yes
Number of LED's	5
LED switching conditions display	
- The integrated LEDs indicate the following operating states.	
- Supply voltage U _B	
- Authorized operation	
- Safety edge function for 4 Safety edges	
- fault indication	

Miscellaneous data

Applications



Safety edges

Dimensions

Dimensions

Width	22.5 mm
Height	100 mm
Depth	121 mm

notice

The overall machine safety depends on the professional mounting and installation of the safety monitoring module and the signal transmitter, as well as on the correct and professional electrical connection of the components.

If there is any risk whatsoever, the machine may not be restarted.

notice - Wiring example

Monitoring the safety edges SE 40 / SE 70 with a safety monitoring unit SE-304C up to PL d and Category 3.

Manual reset function or auto-reset:

The manual reset function is triggered by an edge-sensitive signal (edge switching "0-1-0" within 100 ms up to 2 s) (X2/X3). Alternatively, the auto-reset function can be activated by a connection (A3/X2).

Both re-initialisation and auto-reset must comply with the requirements of EN 1760-2 (diagram A2, A3).

If less than 4 safety edges are connected, the following diagram must be observed.

The wiring diagram is shown for the de-energised condition.

Documents

Operating instructions and Declaration of conformity (pt) 252 kB, 12.01.2018

Code: mrl_se304c_pt

Operating instructions and Declaration of conformity (nl) 245 kB, 16.01.2018

Code: mrl_se304c_nl

Operating instructions and Declaration of conformity (fr) 248 kB, 16.01.2018

Code: mrl_se304c_fr

Operating instructions and Declaration of conformity (pl) 261 kB, 16.01.2018

Code: mrl_se304c_pl

Operating instructions and Declaration of conformity (en) 246 kB, 08.12.2017

Code: mrl_se304c_en

Operating instructions and Declaration of conformity (de) 215 kB, 08.12.2017

Code: mrl_se304c_de

Operating instructions and Declaration of conformity (it) 250 kB, 16.01.2018

Code: mrl_se304c_it

Operating instructions and Declaration of conformity (es) 247 kB, 10.01.2018

Code: mrl_se304c_es

Operating instructions and Declaration of conformity (cn) 385 kB, 23.11.2018

Code: mrl_se304c_cn

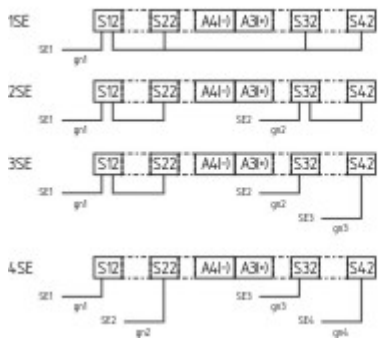
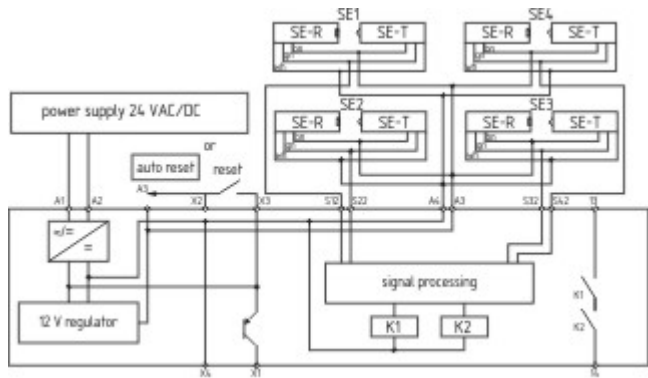
Operating instructions and Declaration of conformity (jp) 480 kB, 02.09.2014

Code: mrl_se304c_jp

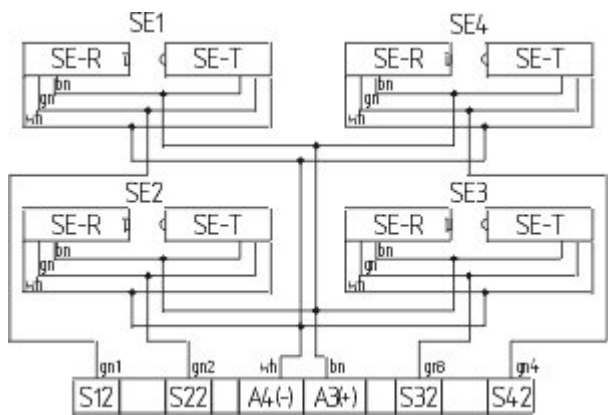
TÜV certification (de, en) 233 kB, 05.05.2015

Code: z_se4p03

Images



Wiring example



Wiring example

K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal

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

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