Datasheet - SE-400C

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

☒ Preferred typ

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

- To monitor 1 safety edge(s)
- 2 safety contacts, STOP 0
- 1 Signalling output

Ordering details

Product type description	SE-400C
Article number	101153920
EAN code	4030661289175
eCl@ss	27-27-92-15

Approval

Approval	TÜV USA/CAN

Classification

Standards	EN ISO 13849-1
PL	up e
Control category	up 4
PFH value	2.47 x 10 - 8 /h
- notice	up to max. 50000 switching cycles/year
Mission time	20 Years

Global Properties

Product name	SE-400C
Standards	EN ISO 13856-2, EN ISO 13849-1
Compliance with the Directives (Y/N) CE	Yes
Product utilisation up to category in accordance with EN 954	4
Climatic stress	EN ISO 13856-2
Mounting	snaps onto standard DIN rail to EN 60715
- Clearance	IP54
- enclosure	IP40
- terminals	IP20
Materials	
- Material of the housings	Plastic, PE (Black), Crastin (Grey)
Weight	184 g
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
Response time	32 ms
Time to readiness	approx. 32 ms

Mechanical data

Connection type	Screw connection
Cable section	
- Min. Cable section	
- Max. Cable section	2 x 1.5 mm²
Detachable terminals (Y/N)	No
Mechanical life	30.000.000 operations
notice	All indications about the cable section are including the conductor ferrules.
Resistance to vibration	10 ... 55 Hz, Amplitude 0,15 mm
Closing duration	approx. 32 ms
Opening duration	15 ms

Ambient conditions

Ambient temperature	
- Min. environmental temperature	+5 °C
- Max. environmental temperature	+55 °C
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

Electrical data

Rated DC voltage for controls	
- Min. rated DC voltage for controls	21.6 V
- Max. rated DC voltage for controls	28.8 V

Rated AC voltage for controls, 50 Hz	
- Min. rated AC voltage for controls, 50 Hz	-
- Max. rated AC voltage for controls, 50 Hz	-
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 W
Type of actuation	DC
Rated operating voltage U_e	24 VDC +20% / −10%
Operating current I_e	approx. 150 mA
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 m

Outputs

Stop category	0
Number of safety contacts	2 piece
Number of auxiliary contacts	0 piece
Number of signalling outputs	1 piece
Switching capacity	
- Switching capacity of the safety contacts	230 VAC / 2 A; 24 VDC / 2 A
- Switching capacity of the signaling/diagnostic outputs	50 mA
Fuse rating	
- Protection of the safety contacts	4 A gG D-fuse
Utilisation category	AC-15: 230 V / 2 A; DC-13: 24 V / 3 A
Number of undelayed semi-conductor outputs with signaling function	1 piece
Number of undelayed outputs with signaling function (with contact)	0 piece
Number of delayed semi-conductor outputs with signaling function.	0 piece
Number of delayed outputs with signalling function (with contact).	0 piece
Number of secure undelayed semi-conductor outputs with signaling function	0 piece
Number of secure, undelayed outputs with signaling function, with contact.	2 piece
Number of secure, delayed semi-conductor outputs with signaling function	0 piece
Number of secure, delayed outputs with signaling function (with contact).	0 piece

LED switching conditions display

LED switching conditions display (Y/N)	Yes
Number of LED´s	2 piece
LED switching conditions display	
- The integrated LEDs indicate the following operating states.	
- Safety edge function	
- Supply voltage U_B	

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 it 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-400C up to PL e and Category 4.

The feedback circuit monitors the position of the contactors KA and KB.

A Start-Reset-Taster (S) can optionally be connected to the feedback circuit.

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

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

Documents

Operating instructions and Declaration of conformity (pl) 232 kB, 11.09.2014
Code: mrl_se400c_pl

Operating instructions and Declaration of conformity (fr) 217 kB, 16.10.2014
Code: mrl_se400c_fr

Operating instructions and Declaration of conformity (de) 213 kB, 13.08.2014
Code: mrl_se400c_de

Operating instructions and Declaration of conformity (nl) 213 kB, 16.10.2014
Code: mrl_se400c_nl

Operating instructions and Declaration of conformity (en) 218 kB, 11.09.2014
Code: mrl_se400c_en

Operating instructions and Declaration of conformity (it) 221 kB, 11.09.2014
Code: mrl_se400c_it

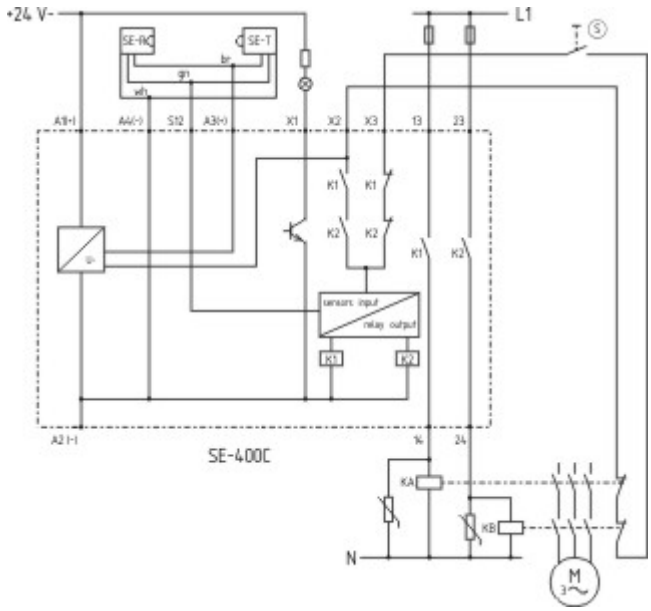
Operating instructions and Declaration of conformity (cn) 291 kB, 30.06.2015
Code: mrl_se400c_cn

Operating instructions and Declaration of conformity (jp) 299 kB, 11.09.2014
Code: mrl_se400c_jp

Operating instructions and Declaration of conformity (es) 222 kB, 11.09.2014
Code: mrl_se400c_es

TÜV certification (de, en) 233 kB, 05.05.2015
Code: z_se4p03

Images



Wiring example

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