



Transponder safety switches TR4 Direct Sensor & actuator

TR4-SFM03P



Model Name > [TR4-SFM03P](#)
Part No. > [6044648](#)

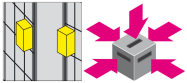


At a glance

- Response range of up to 25 mm
- Sensor and actuator up to enclosure rating IP 69K
- Multicoded and unique coded sensors
- Up to performance level PL e (EN ISO 13849)
- Two OSSD safety outputs for direct connection of sensors to a single safety controller
- Safe series connection of up to 30 sensors possible
- LED status indicator
- Boundary area indication and magnetic retaining force (both optional)

Your benefits

- High level of prevention against tampering due to individually coded actuator (depending on type)
- High level of machine availability due to high tolerances for door misalignment and boundary area indication
- High level of machine reliability due to resistance to shocks and vibrations
- Cascadability of up to 30 sensors saves costs
- Just one safety switch in conjunction with a suitable safety module makes it possible to solve applications up to PL e and Cat. 4 (EN ISO 13849)
- Long service life due to durable and low-maintenance design
- Fast diagnostics via LED status indicator
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards



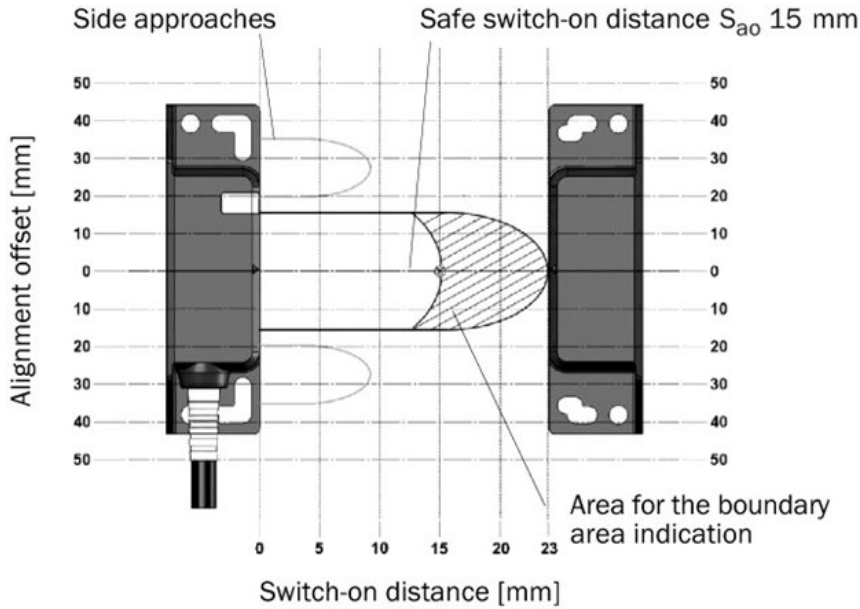
Technical data

| | |
|---|---|
| Coding: | Multicoded |
| Safety integrity level: | SIL3 (IEC 61508) |
| Category: | Category 4 (EN ISO 13849) |
| Performance level: | PL e (EN ISO 13849) |
| PFHd: | 1.119 * 1E-09 (EN ISO 13849) |
| Electrical life: | 10* 1E 06 switching cycles |
| TM (mission time): | 20 a (EN ISO 13849) |
| Classification in compliance with IEC/EN 60947-5-3: | PDF-M |
| Housing material: | Valox® DR48 |
| Enclosure rating: | IP 69K (DIN 40050-9), NEMA 12, NEMA 13, NEMA 3, NEMA 4X |
| Protection class: | III (EN 50178) |

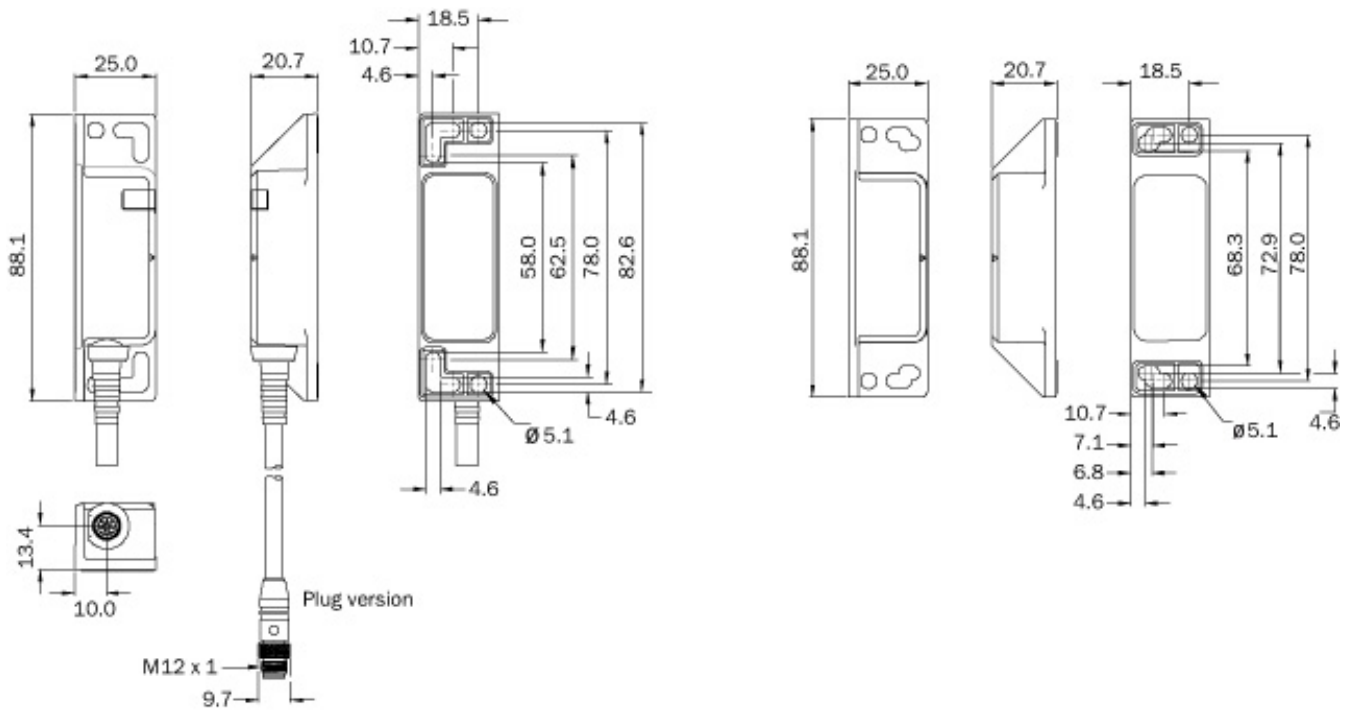
| | |
|--|-------------------------------|
| Ambient operating temperature from ... to: | -10 °C ... 55 °C |
| Connection type: | Cable |
| Cable length: | 3 m |
| Type of output: | Semiconductor (OSSD) |
| Number of safe outputs: | 2 |
| Response time: | 60 ms ¹⁾ |
| Supply voltage typical, from, to: | 24 V DC, 20.4 V DC, 26.4 V DC |
| Safe switch on distance S_{a0} : | 15 mm |
| Status display: | ✓ |
| Boundary area indication: | ✓ |
| Magnetic retaining force: | ✓ |
| Dimensions (W x H x D): | 25 mm x 88 mm x 20 mm |
| Weight: | 270 g |

¹⁾ In a cascade each downstream safety switch increases the response time of the system. Other response times see operating instructions.

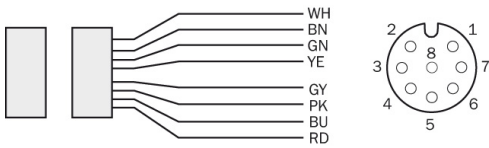
Response range



Dimensional drawing



Connection diagram



| Pin | Wire color | Designation | Description |
|-----|------------|-------------|----------------------------|
| 1 | White | Out Aux | Aux output (not safe) |
| 2 | Brown | + 24 V DC | Voltage supply 24 V DC |
| 3 | Green | N. c. | Not connected |
| 4 | Yellow | In B | Enable input for channel B |
| 5 | Gray | Out A | Safety output A |
| 6 | Pink | Out B | Safety output B |
| 7 | Blue | 0 V | Voltage supply 0 V DC |
| 8 | Red | In A | Enable input for channel A |

Australia

Phone +61 3 9457 0600
1800 334 802 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail sac@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Ceská Republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail kundenservice@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6801000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 3358 1341
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederlands

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail austefjord@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail admin@sicksgp.com.sg

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886-2-2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 8865 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 800-325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com