



## Transponder safety switches TR4 Direct Sensor & actuator

TR4-SFU01C



**Model Name** > [TR4-SFU01C](#)  
**Part No.** > [6044653](#)

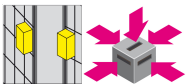


#### At a glance

- 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



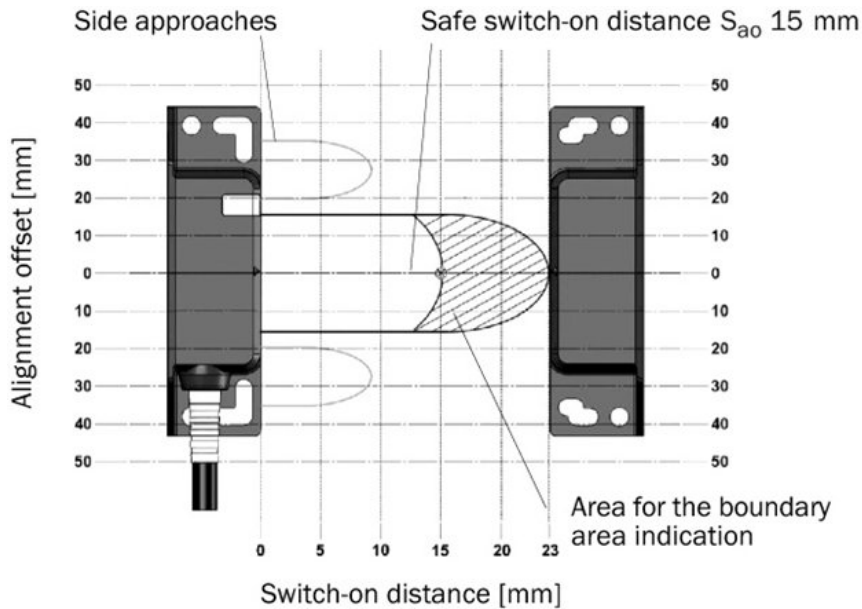
#### Technical data

|                                                     |                                                         |
|-----------------------------------------------------|---------------------------------------------------------|
| Coding:                                             | Unique coded                                            |
| 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)                                          |

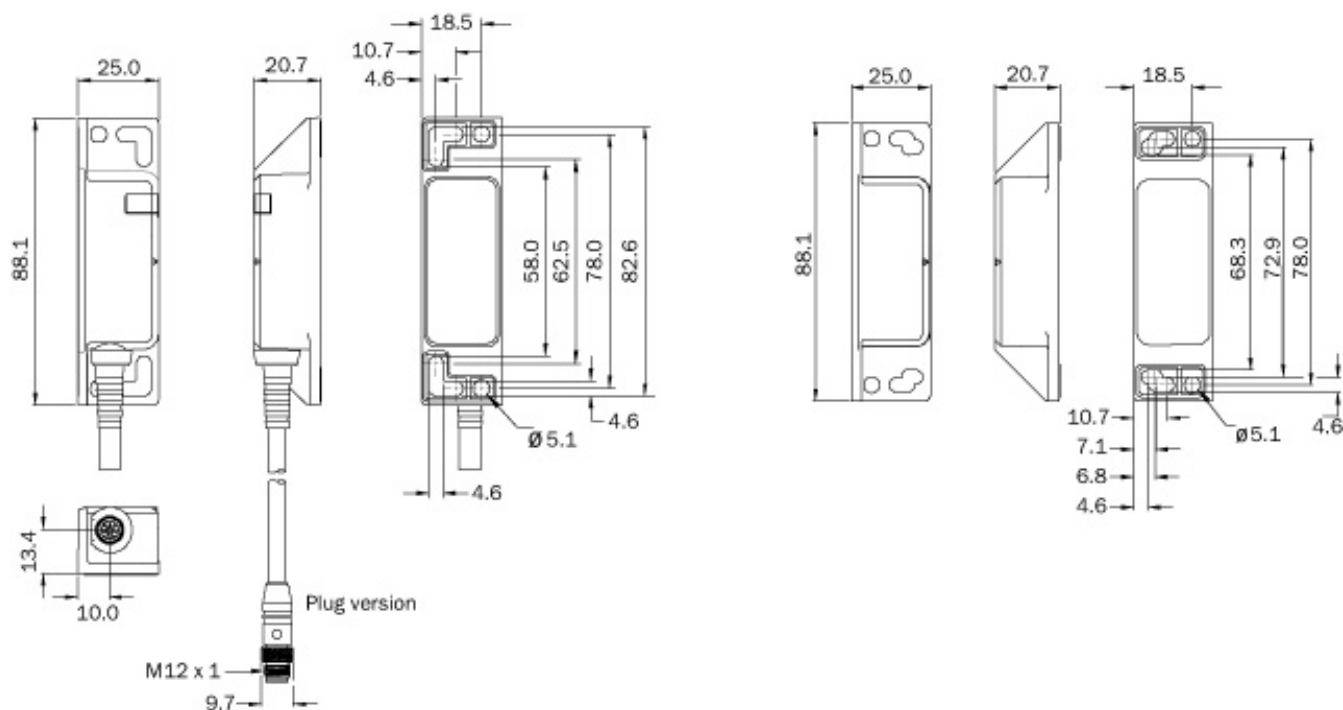
|                                            |                               |
|--------------------------------------------|-------------------------------|
| Ambient operating temperature from ... to: | -10 °C ... 55 °C              |
| Connection type:                           | Cable with plug M12, 8-pin    |
| Cable length:                              | 0.2 m                         |
| Type of output:                            | Semiconductor (OSSD)          |
| Number of safe outputs:                    | 2                             |
| Response time:                             | 60 ms <sup>1)</sup>           |
| Supply voltage typical, from, to:          | 24 V DC, 20.4 V DC, 26.4 V DC |
| Safe switch on distance $S_{ao}$ :         | 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:                                    | 112 g                         |

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

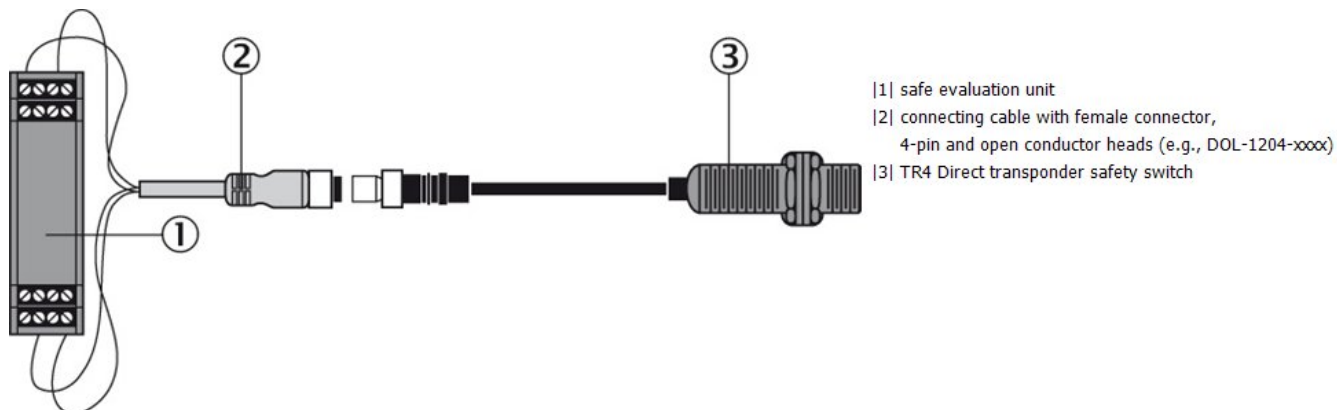
## Response range



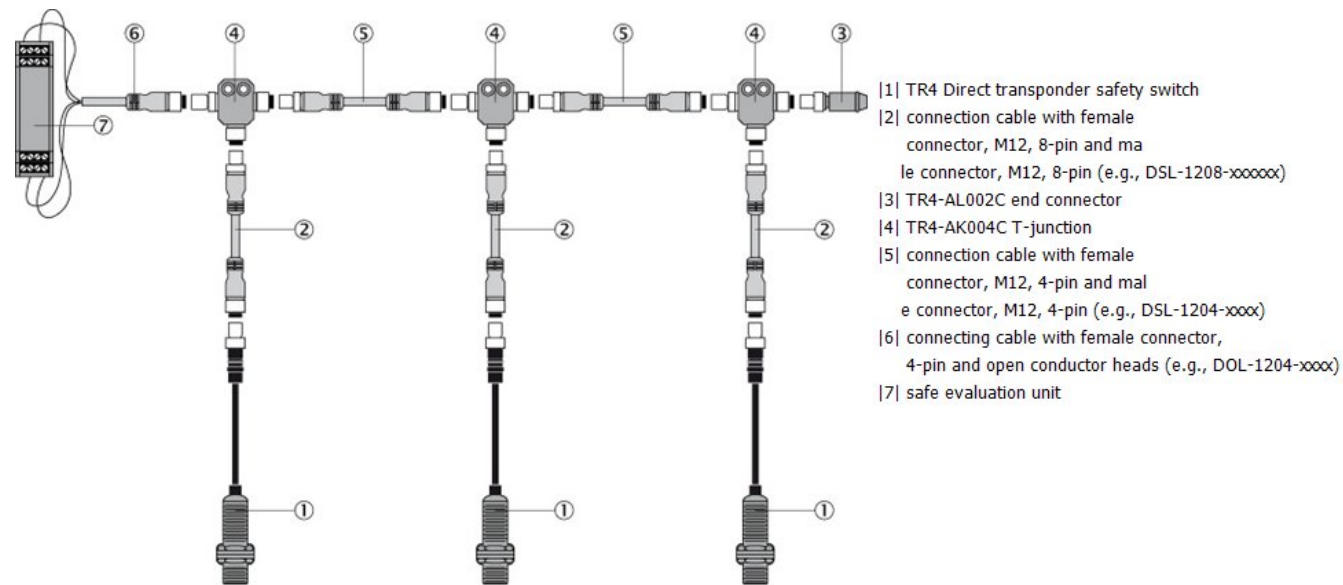
## Dimensional drawing



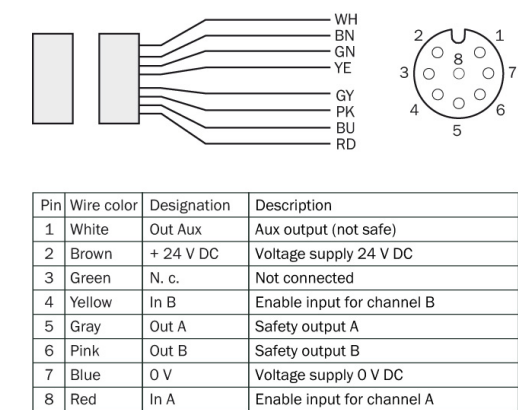
## Connection single sensor



Connection in series



Connection diagram



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