



TR10-SRU01C

TR10 Lock

SAFETY LOCKING DEVICES

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
TR10-SRU01C	6054764

Other models and accessories → www.sick.com/TR10_Lock

Detailed technical data

Features

Sensor principle	Transponder
Number of safe outputs	2
Coding	Uniquely coded
Locking force F_{max}	1,690 N (EN ISO 14119)
With straight actuator	EN ISO 14119
With angled actuator	EN ISO 14119
With hinged actuator	EN ISO 14119
Locking force F_{Zh}	1,300 N (EN ISO 14119)
Actuation directions	4
Approach speed	≥ 2 mm/s

Safety-related parameters

Safety integrity level	SIL3 (IEC 61508)
Category	Category 4 (EN ISO 13849)
Performance level	PL e (EN ISO 13849)
PFH_D (mean probability of a dangerous failure per hour)	9.1×10^{-10} (EN ISO 13849)
T_M (mission time)	20 years (EN ISO 13849)
Type	Type 4 (EN ISO 14119)
Actuator coding level	High coding level (EN ISO 14119)
Safe state in the event of a fault	At least one safety-related semiconductor output (OSSD) is in the OFF state.

Functions

Cascading	✓
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Interfaces

Connection type	Cable with plug M12, 8-pin
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Flexi-Loop-ready	✓
Length of cable	0.2 m
Cable material	PVC
Connecting cable length	≤ 200 m

Electrical data

Protection class	II (IEC 61140)
Contamination rating	3
Classification according to cULus	Class 2
Usage category	DC-13 (IEC 60947-5-1)
Rated operating current (voltage)	200 mA (24 V DC)
Rated insulation voltage U_i	75 V
Rated impulse withstand voltage U_{imp}	1,000 V
Supply voltage V_s	24 V DC (20.4 V DC ... 26.4 V DC)
Type of output	Semiconductor (OSSD)
Output current	≤ 200 mA
Peak current	400 mA, 100 ms ¹⁾
Power consumption	2.5 W
Response time	100 ms for the first switch, 50 ms for each subsequent switch ²⁾
Enable time	600 ms
Risk time	100 ms
Switch-on time	7 s
Locking principle	Power to release

¹⁾ During switching on, locking, or unlocking.

²⁾ Time until the outputs are switched off.

Mechanical data

Weight	0.4 kg
Housing material	ABS
Locking bolt material	Stainless steel 304
Mechanical life	5 x 10 ⁵ switching cycles

Ambient data

Enclosure rating	IP66 (IEC 60529) IP67 (IEC 60529) IP69K (IEC 60529)
Ambient operating temperature	0 °C ... +55 °C
Storage temperature	-25 °C ... +75 °C
Vibration resistance	10 Hz ... 55 Hz (IEC 60068-2-6)
Shock resistance	30 g, 11 ms (EN 60068-2-27)
EMC	IEC 60947-5-3

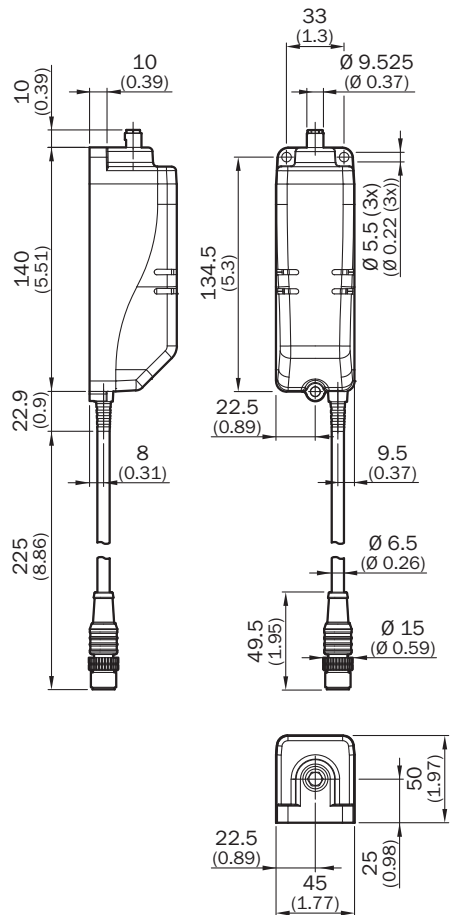
Classifications

ECl@ss 5.0	27272603
ECl@ss 5.1.4	27272603

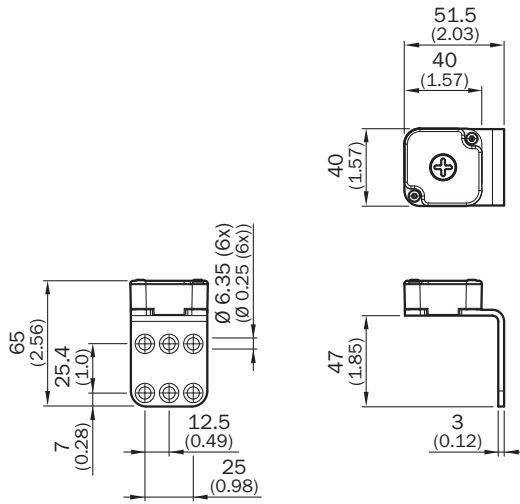
ECl@ss 6.0	27272603
ECl@ss 6.2	27272603
ECl@ss 7.0	27272603
ECl@ss 8.0	27272603
ECl@ss 8.1	27272603
ECl@ss 9.0	27272603
ETIM 5.0	EC002593
ETIM 6.0	EC002593
UNSPSC 16.0901	39122205

Dimensional drawing (Dimensions in mm (inch))

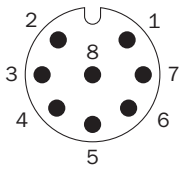
Sensor with cable and male connector



Actuator and mounting bracket



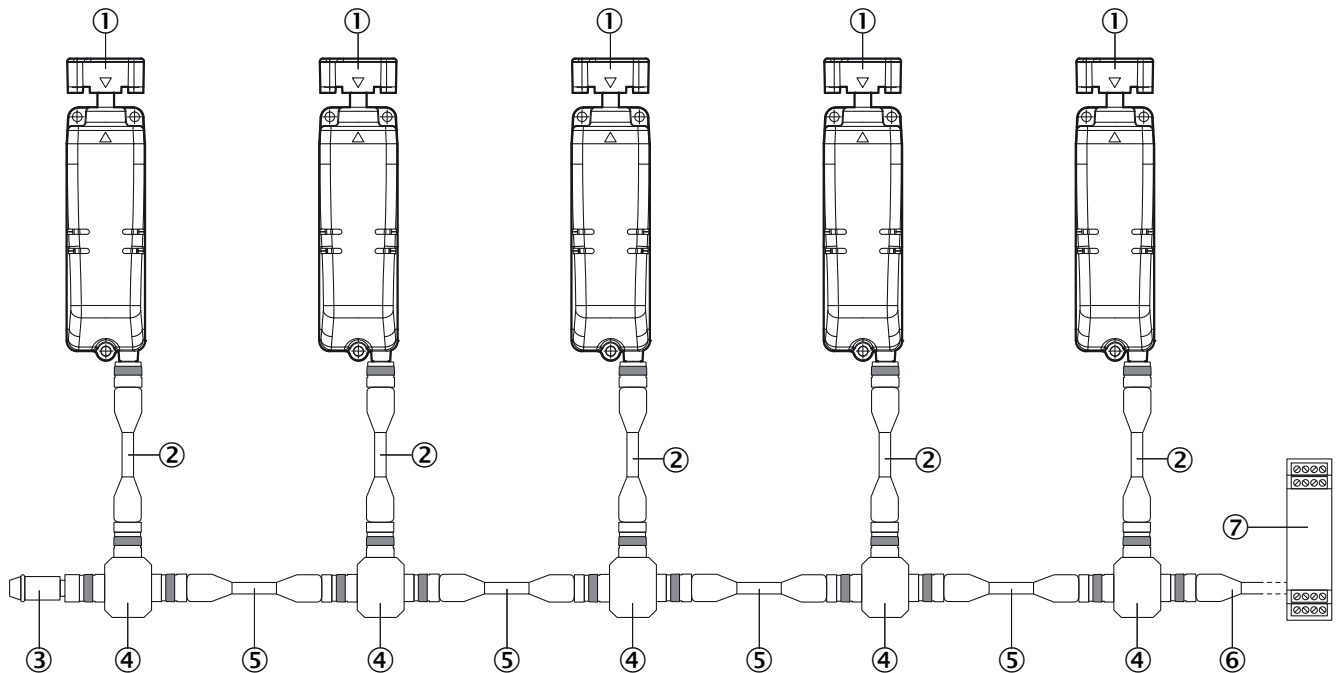
Connection diagram



1	Aux output (not safe)
2	Voltage supply 24 V DC
3	Lock control
4	OSSD 2 input
5	OSSD 1 output
6	OSSD 2 output
7	Voltage supply 0 V DC
8	OSSD 1 input

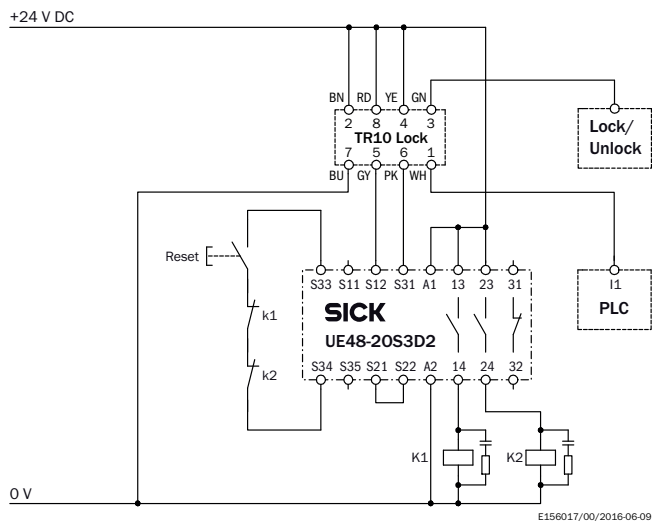
Series connection

Series connection with T-piece (without diagnostics)

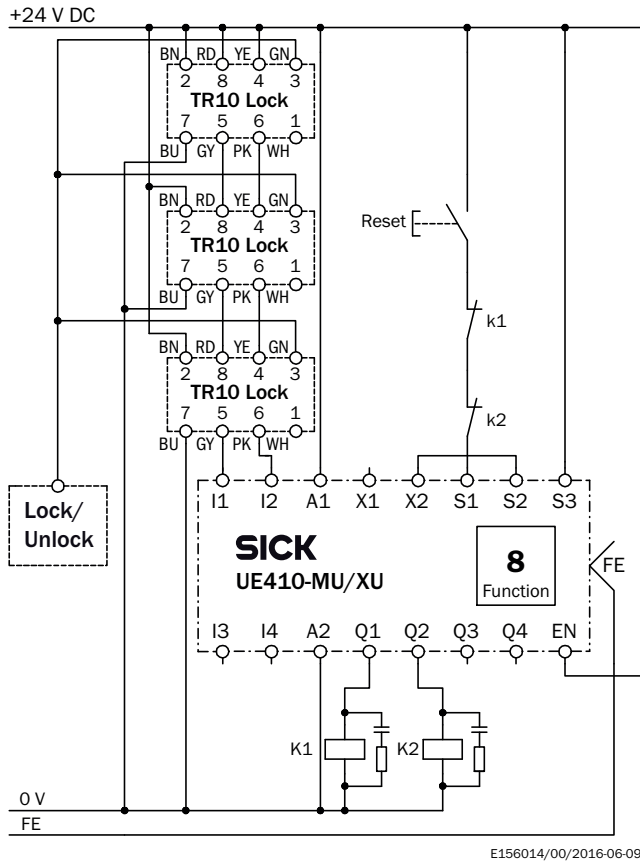


- ① TR10 Lock safety locking device
- ② Connection cable with 8-pin, M12 male connector and 8-pin, M12 female connector (e.g., DSL-1208-xxxx)
- ③ MLP1-XXT end connector
- ④ TR4-AK004C T-connector
- ⑤ Connection cable with 5-pin, M12 male connector and 5-pin, M12 female connector (e.g., DSL-1205-xxxx)
- ⑥ Connecting cable with 5-pin, M12 female connector and flying leads (e.g., DOL-1205-xxxx)
- ⑦ Safe evaluation unit

TR10 Lock safety locking device to UE48-20S safety relay





Series connection of three TR10 Lock safety locking devices to a Flexi Classic safety controller



Recommended accessories

Other models and accessories → www.sick.com/TR10_Lock

	Brief description	Type	Part no.
Nuts and screws			
	10 pieces, Safety screws for mounting bracket of actuator	Safety screws M5 x 10	5334497
Plug connectors and cables			
	Head A: female connector, M12, 8-pin, straight Head B: Flying leads Cable: PUR, halogen-free, unshielded, 2.5 m	DOL-1208-G2M5C	6058863
	Head A: female connector, M12, 8-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YF2A18-050UA5XLEAX	2095653
	Head A: female connector, M12, 8-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	YF2A18-100UA5XLEAX	2095654
	Head A: female connector, M12, 8-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 20 m	YF2A18-200UA5XLEAX	2095680

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