



SSP

Safety System Products

S16LDRB-H0A-E2-I1-I1-I1-Q1A0-Q2J0-Q3C0-Q4J0-W20

Safety Simplifier | for two tGard SMDU

Your advantages

- 14 I/O's as safety Inputs or redundant OSSD-Outputs
- wireless Interface for safe communication, programming & diagnosis
- IP65
- 40mm width for aluminium safety fence systems



To the downloads ►

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With the Safety Simplifier we take safety where it is needed and we provide safety where it is needed with the Safety Simplifier and make it easier for you to develop user-friendly safety systems, such as on access doors. Simply connect up your sensors, locking systems or light curtains. Select the required push button and/or emergency stop button and you have a complete safety solution with analysis and diagnosis functions. This data is wirelessly transmitted via another Safety Simplifier or directly transmitted to your existing system in a fail-safe manner.

General data

| | |
|------------------|---|
| Type designation | S16LDRB-H0A-E2-I1-I1-I1-Q1A0-Q2J0-Q3C0-Q4J0-W20 |
| Item number | SP-X-89-000-60 |
| Functional type | Safety PLC with safe wireless interface, internal antenna |

Button position 1

| | |
|------------------|------------------------|
| Type designation | E2 |
| Function type | Emergency- Stop-Button |

Button position 2

| | |
|------------------|--------------------|
| Type designation | I1 |
| Function type | Illuminated Button |

Button position 3

| | |
|------------------|--------------------|
| Type designation | I1 |
| Function type | Illuminated Button |

Button position 4

| | |
|------------------|---------------------------------|
| Type designation | I1 |
| Function type | Illuminated Button |
| Colour | red, yellow, green, blue, white |

Connection

| | |
|--------------|-----------------------------------|
| - Position 2 | Q2J - connector female M12 12-Pin |
| - Position 3 | Q3C - connector male M12 5-Pin |
| - Position 4 | Q4J - connector female M12 12-Pin |

Safety data

CPU



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| | |
|----------------------------------|-------------------|
| - EN ISO 13849-1: 2008 | Category 4 |
| - IEC 61508-2 | SIL CL 3 |
| - EN 62061 PFHD [1/h] | □ |
| - EN ISO 13849-1: 2008 TM [Year] | 20 |
| 1-channel input | |
| - EN ISO 13849-1: 2008 | Category 2 |
| - IEC 61508-2 | SIL CL 2 |
| - EN 62061 PFHD [1/h] | □ |
| - EN ISO 13849-1: 2008 TM [Year] | 20 |
| 2-channel input | |
| - EN ISO 13849-1: 2008 | Category 4 |
| - IEC 61508-2 | SIL CL 3 |
| - EN 62061 PFHD [1/h] | □ |
| - EN ISO 13849-1: 2008 TM [Year] | 20 |
| 1-channel OSSD output | |
| - EN ISO 13849-1: 2008 | Category 2 |
| - IEC 61508-2 | SIL CL 2 |
| - EN 62061 PFHD [1/h] | □ |
| - EN ISO 13849-1: 2008 TM [Year] | 20 |
| 2- channel OSSD Output | |
| - EN ISO 13849-1: 2008 | Category 4 |
| - IEC 61508-2 | SIL CL 3 |
| - EN 62061 PFHD [1/h] | □ |
| - EN ISO 13849-1: 2008 TM [Year] | 20 |
| 2- channel relais output | |
| - EN ISO 13849-1: 2008 | Category 4 |
| - EN 62061 SIL CIL | SIL CL 3 |
| - EN 62061 PFHD [1/h] | □ |
| - EN ISO 13849-1: 2008 TM [Year] | 20 |
| - B10d | 1.000.000 |
| Approvals | CE, TÜV |
| Environmental conditions | |
| Max. storage temperature | -20 °C ... +65 °C |



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Max. operating temperature -20 °C ... +65 °C

Electrical data

Technical data wireless safety

- max. amount of safe wireless channels 16

Channels

- Channel 1 2405 MHz

- Channel 2 2410 MHz

- Channel 3 2415 MHz

- Channel 4 2420 MHz

- Channel 5 2425 MHz

- Channel 6 2430 MHz

- Channel 7 2435 MHz

- Channel 8 2440 MHz

- Channel 9 2445 MHz

- Channel 11 2455 MHz

- Channel 10 2450 MHz

- Channel 12 2460 MHz

- Channel 13 2465 MHz

- Channel 14 2470 MHz

- Channel 15 2475 MHz

- Channel 16 2480 MHz

- amount of clamps 32

Supply voltage 10 - 30 V

Current consumption 110 mA with LED display

Conductor cross section

- single wire 0,08 ... 0,5 mm²

- fine wire 0,08 ... 0,5 mm²

- fine wired (wire sleeve without plastic collar) 0,25 mm²

stripping length 5-6 mm

configurable In-/ Outputs

14 semiconductor In-/ Outputs with help of software configurable □

S16LDRB-H0A-E2-I1-I1-I1-Q1A0-Q2J0-Q3C0-Q4J0-W20

| | |
|--|--|
| Amount of safe inputs | max. 14 |
| Amount of safe semi-conductors OSSD outputs | max. 14 |
| Amount of semi-conductors auxilliary outputs | max. 14 |
| Amount of semi-conductors clock outputs | max. 8 |
| Input current | HIGH 2,4 mA ... 3,8 mA LOW -2,5 mA ... 2,1 mA |
| Output type | PNP- Semiconductor |
| Output voltage | Operation voltage UB -0,5 V |
| Seperate output current | max. 600 mA (bei UB 24 V) |
| Total output current | max. 2 A (bei UB 24 V) |
| Button position 1 | |
| Type designation | E2 |
| Function type | Emergency- Stop- Button |
| Switch type | 2 Openers + LED |
| Bounce time NO | <10 ms |
| Bounce time NC | <10 ms |
| Break contact force opening | according to EN60947-5-1 Anh-K |
| Illumination | LED |
| mechanical lifespan | 50.000 switching cycles |
| electrical lifespan | 50.000 switching cycles |
| B10d- Value | 250.000 |
| Button position 2 | |
| Type designation | I1 |
| Function type | Illuminated Button |
| Switch type | 1 closing device + LED |
| Bounce time NO | <10 ms |
| Bounce time NC | <10 ms |
| Break contact force opening | according to EN60947-5-1 Anh-K |
| Illumination | LED |
| mechanical lifespan | 30.000 switching cycles |
| electrical lifespan | 30.000 switching cycles |
| Button position 3 | |
| Type designation | I1 |
| Function type | Illuminated Button |



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| | |
|--|---|
| Colour | red, yellow, green, blue, white |
| Switch type | 1 closing device + LED |
| Bounce time NO | <10 ms |
| Bounce time NC | <10 ms |
| Break contact force opening | EN60947-5-1 Anh-K |
| Illumination | LED |
| mechanical lifespan | 30.000 switching cycles |
| electrical lifespan | 30.000 switching cycles |
| Button position 4 | |
| Type designation | I1 |
| Function type | Illuminated Button |
| Colour | red, yellow, green, blue, white |
| Switch type | 1 closing device + LED |
| Bounce time NO | <10 ms |
| Bounce time NC | <10 ms |
| Break contact force opening | according to EN60947-5-1 Anh-K |
| Illumination | LED |
| mechanical lifespan | 30.000 switching cycles |
| electrical lifespan | 30.000 switching cycles |
| General data | |
| Memory card | Installation of a memory card MEM-SP-N-88-001-93 possible |
| Programming connection | micro USB |
| Type terminal connection | clamp terminal |
| - fine wired (wire sleeve with plastic collar) | 0,08 ... 0,5 mm ² |
| Input voltage | HIGH 75% from UB (adjustable by software) LOW 25% from UB (adjustable by software) |
| Technical data inputs | |
| Short-circuit proof | Yes |
| Mechanical data | |
| Installation opening of buttons | 22,5 mm |
| Type of housing | H0A |

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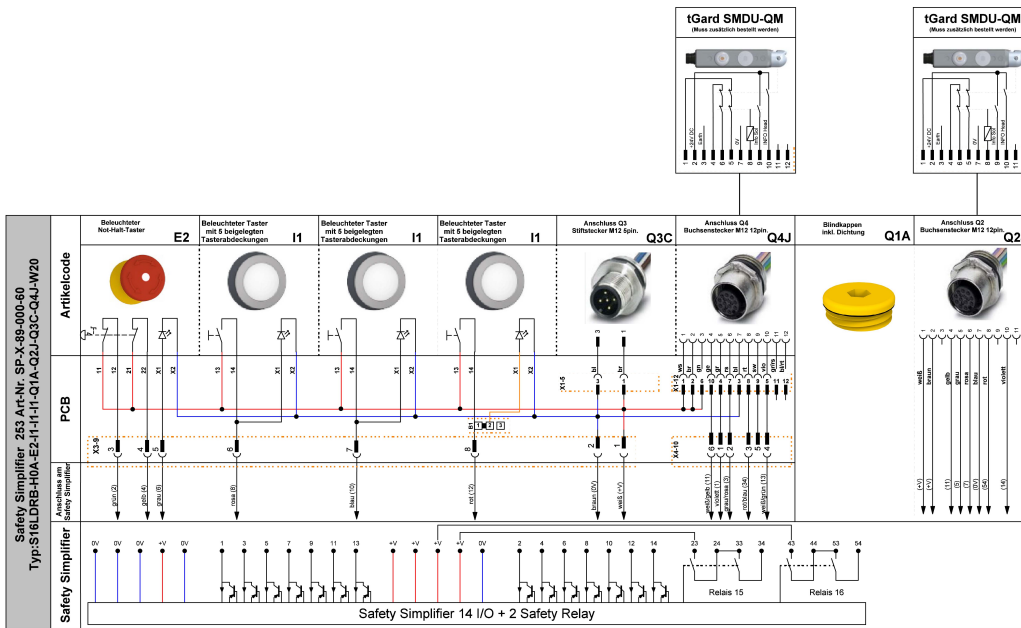
Dimensions

| | |
|--------|--------|
| Height | 44 mm |
| Length | 253 mm |
| Width | 42 mm |

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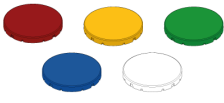


Electrical drawings

Connection example 1

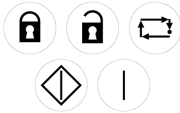
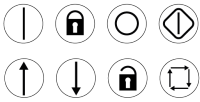







Equipment









Wireless Safety

| | | | |
|-------------------|--|----------------|---|
| Article code ZTK5 | Button cap set for illuminated buttons | SP-X-88-001-19 |  |
| | Inscription label set ZB1 | SP-X-88-001-21 |  |
| | Inscription label set ZB2 | SP-X-88-001-22 |  |

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| | | | |
|------------------|---------------------------------------|----------------|---|
| | Inscription label set ZB3 | SP-X-88-001-23 |  |
| | Inscription label set ZB4 | SP-X-88-001-93 |  |
| Article code ZMT | Installation wrench | SP-X-88-001-25 |  |
| Article code ZUK | Liftingtool for button and light caps | SP-X-88-001-26 |  |
| Article code ZMB | Mounting plate big | SP-N-88-850-02 |  |
| Article code ZMS | Mountingplate small | SP-N-88-850-01 |  |
| Article code ZSD | Screw with seal | SP-X-88-001-89 |  |

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| | | | |
|--|------------------------|----------------|---|
| External antenna for Safety Simplifier, cable length 1 m | Simplifier EXTA 1 m | SP-X-88-200-24 |  |
| External antenna for Safety Simplifier, cable length 10 m | Simplifier EXTA 10 m | SP-X-88-200-20 |  |
| External antenna for Safety Simplifier, cable length 2 m | Simplifier EXTA 2 m | SP-X-88-200-23 |  |
| External antenna for Safety Simplifier, cable length 5 m | Simplifier EXTA 5 m | SP-X-88-200-22 |  |
| External antenna for Safety Simplifier, cable length 8 m | Simplifier EXTA 8 m | SP-X-88-200-21 |  |
| Free software for the Safety Simplifier System | Simplifier Manager | |  |
| | Simplifier Monitor SRM | SP-N-88-850-03 |  |
| Fastening set for Safety Simplifier for back panel mounting | Simplifier ZHMS | SP-X-88-001-91 |  |

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Fastening set for Safety Simplifier

Simplifier ZHS

SP-X-88-001-91



Accessories

M12-female connector, 12 pin, 10 m

M12-C12101-G

SP-X-33-000-21



M12-female connector, 12 pin, 20 m

M12-C12201-G

SP-X-33-000-22



M12-female connector, 5-pin

M12-C51-G

SP-X-33-001-00



M12-male connector, 5 pin

M12-C52-G

SP-X-33-001-01



M12-female connector, 8 pin

M12-C81-G

SP-X-33-001-02



M12-male connector, 8 pin

M12-C82-G

SP-X-33-001-03










M12-connecting cable, 12 pin, 1 m

M12-M12-C1213-G

SP-X-33-000-30



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| | | | |
|-------------------------------------|-----------------|----------------|---|
| M12-connecting cable, 5 pin, 0,5 m | M12-M12-C5023-G | SP-X-33-000-10 |  |
| M12-connecting cable, 5 pin, 1 m | M12-M12-C513-G | SP-X-33-000-11 |  |
| M12-connecting cable, 5 pin, 2 m | M12-M12-C523-G | SP-X-33-000-12 |  |
| M12-connecting cable, 8 pin, 10 m | M12-M12-C8103-G | SP-X-33-000-09 |  |
| M12-connecting cable, 8 pin, 1 m | M12-M12-C813-G | SP-X-33-000-25 |  |
| Operating elements | | | |
| Universal hook | SP UH-K | |  |
| Safety switches | | | |
| Safety switch with locking function | THM-SMDU-QM | ITM-00159181 |  |



Safety System Products

S16LDRB-H0A-E2-I1-I1-I1-Q1A0-Q2J0-Q3C0-Q4J0-W20

Downloads

- Certificates
- STEP
- Operating manual
- EPLAN-Data