



# SSP

Safety System Products

## S14LDRB-H09-E2-I1-I1-Q1A0-Q2A0-Q3C0-Q4J0-W15

### Safety Simplifier | for 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



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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 | S14LDRB-H09-E2-I1-I1-Q1A0-Q2A0-Q3C0-Q4J0-W15              |
| Item number      | SP-X-89-000-55                                            |
| 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              |
| Colour           | red, yellow, green, blue, white |

### Connection

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

### Safety data

#### CPU

|                                  |            |
|----------------------------------|------------|
| - 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] | □          |

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## S14LDRB-H09-E2-I1-I1-Q1A0-Q2A0-Q3C0-Q4J0-W15

### 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         |

|           |         |
|-----------|---------|
| Approvals | CE, TÜV |
|-----------|---------|

### Environmental conditions

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

### Electrical data

### Technical data wireless safety



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## S14LDRB-H09-E2-I1-I1-Q1A0-Q2A0-Q3C0-Q4J0-W15

- 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 mm <sup>2</sup> |
| - fine wire                                       | 0,08 ... 0,5 mm <sup>2</sup> |
| - fine wired (wire sleeve without plastic collar) | 0,25 mm <sup>2</sup>         |

stripping length 5-6 mm

### configurable In-/ Outputs

14 semiconductor In-/ Outputs with help of software configurable

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

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## S14LDRB-H09-E2-I1-I1-Q1A0-Q2A0-Q3C0-Q4J0-W15

|                             |                                                  |
|-----------------------------|--------------------------------------------------|
| Input current               | HIGH 2,4 mA ... 3,8 mA    LOW -2,5 mA ... 2,1 mA |
| Output type                 | PNP- Semiconductor                               |
| Output voltage              | Operating 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)                           |
| <b>Button position 1</b>    |                                                  |
| 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                                          |
| <b>Button position 2</b>    |                                                  |
| 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                          |
| <b>Button position 3</b>    |                                                  |
| 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                                           |

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## S14LDRB-H09-E2-I1-I1-Q1A0-Q2A0-Q3C0-Q4J0-W15

|                             |                                |
|-----------------------------|--------------------------------|
| 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<br>MEM-SP-N-88-001-93 possible                          |
| Type terminal connection                       | clamp terminals                                                                       |
| - fine wired (wire sleeve with plastic collar) | 0,08 ... 0,5 mm <sup>2</sup>                                                          |
| Input voltage                                  | HIGH 75% from UB (adjustable by software)<br>LOW 25% from UB (adjustable by software) |

### Technical data inputs

#### Technical data safe OSSD outputs, auxilliary and test pulse outputs

|                     |     |
|---------------------|-----|
| Short-circuit proof | Yes |
|---------------------|-----|

### Mechanical data

|                                 |         |
|---------------------------------|---------|
| Installation opening of buttons | 22.5 mm |
| Type of housing                 | H09     |

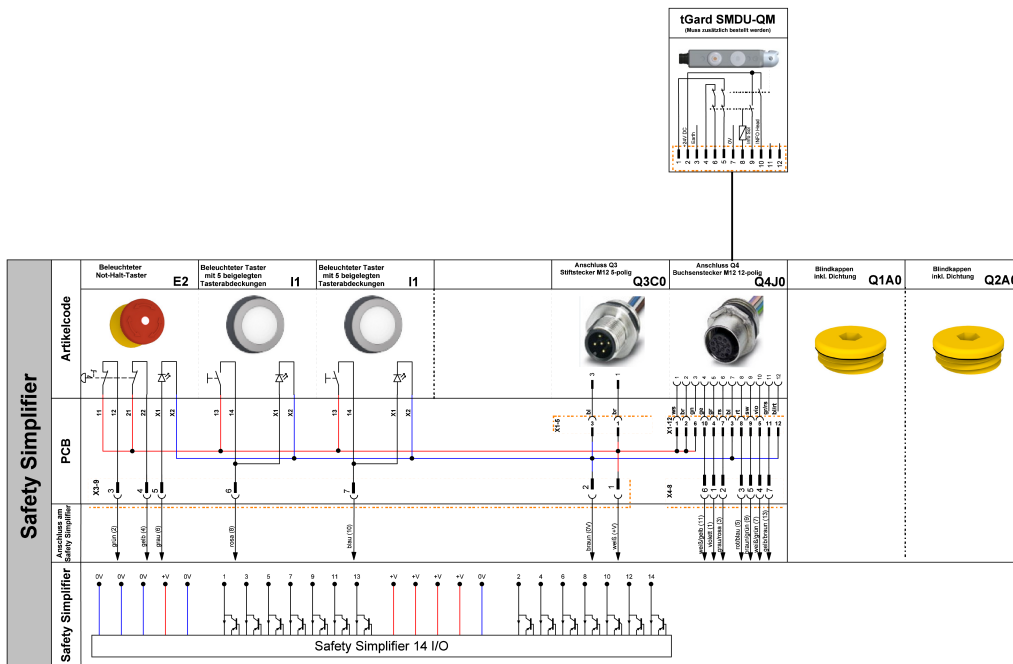
### Dimensions

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

# S14LDRB-H09-E2-I1-I1-Q1A0-Q2A0-Q3C0-Q4J0-W15

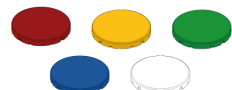
## Electrical drawings

### Connection example 1

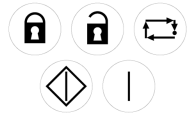


## Equipment

### Wireless Safety

|                          |                                                   |                                                                                                             |
|--------------------------|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <p>Article code ZTK5</p> | <p>Button cap set for<br/>illuminated buttons</p> | <p>SP-X-88-001-19</p>  |
|                          | <p>Inscription label set ZB1</p>                  | <p>SP-X-88-001-21</p>  |

## S14LDRB-H09-E2-I1-I1-Q1A0-Q2A0-Q3C0-Q4J0-W15

|                  |                                          |                |                                                                                       |
|------------------|------------------------------------------|----------------|---------------------------------------------------------------------------------------|
|                  | Inscription label set ZB2                | SP-X-88-001-22 |    |
|                  | 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<br>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 |  |



### S14LDRB-H09-E2-I1-I1-Q1A0-Q2A0-Q3C0-Q4J0-W15

|                                                              |                        |                |                                                                                       |
|--------------------------------------------------------------|------------------------|----------------|---------------------------------------------------------------------------------------|
| Article code ZSD                                             | Screw with seal        | SP-X-88-001-89 |    |
| External antenna for Safety Simplifier, cable length<br>1 m  | Simplifier EXTA 1 m    | SP-X-88-200-24 |    |
| External antenna for Safety Simplifier, cable length<br>10 m | Simplifier EXTA 10 m   | SP-X-88-200-20 |   |
| External antenna for Safety Simplifier, cable length<br>2 m  | Simplifier EXTA 2 m    | SP-X-88-200-23 |  |
| External antenna for Safety Simplifier, cable length<br>5 m  | Simplifier EXTA 5 m    | SP-X-88-200-22 |  |
| External antenna for Safety Simplifier, cable length<br>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 |  |

### S14LDRB-H09-E2-I1-I1-Q1A0-Q2A0-Q3C0-Q4J0-W15

Fastening set for Safety Simplifier for back panel  
mounting

Simplifier ZHMS

SP-X-88-001-91



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



### S14LDRB-H09-E2-I1-I1-Q1A0-Q2A0-Q3C0-Q4J0-W15

|                                    |                 |                |                                                                                       |
|------------------------------------|-----------------|----------------|---------------------------------------------------------------------------------------|
| M12-connecting cable, 12 pin, 1 m  | M12-M12-C1213-G | SP-X-33-000-30 |    |
| 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

## S14LDRB-H09-E2-I1-I1-Q1A0-Q2A0-Q3C0-Q4J0-W15

Safety switch with locking function

THM-SMDU-QM

ITM-00159181



### Downloads

- Certificates
- STEP
- SM Software Projekt
- Catalog
- Product line
- Certificates
- Catalog packaging systems
- Operating manual
- EPLAN-Data