



SSP

Safety System Products

S16LDRB-H09-E2-I1-I1-Q1A0-Q2J0-Q3C0-Q4J0-W19

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 bring safety to where it is needed and make it easier for you to create user-friendly safety systems, such as on access doors. Simply connect your sensors, locking devices or light curtains. A complete safety solution with evaluation and diagnostics, which can be transmitted wirelessly via another Safety Simplifier or directly to your existing system in a safety-oriented manner.

General data

Type designation	S16LDRB-H09-E2-I1-I1-Q1A0-Q2J0-Q3C0-Q4J0-W19
Item number	1029216
Item number (old)	SP-X-89-000-59
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 2	Q2J - female connector M12 12-Pin
- 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]	□

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- EN ISO 13849-1: 2008 TM [Year]	20
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1-channel input

- EN ISO 13849-1: 2008	Category 2
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- IEC 61508-2	SIL CL 2
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- EN 62061 PFHD [1/h]	□
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- EN ISO 13849-1: 2008 TM [Year]	20
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2-channel input

- EN ISO 13849-1: 2008	Category 4
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- IEC 61508-2	SIL CL 3
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- EN 62061 PFHD [1/h]	□
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- EN ISO 13849-1: 2008 TM [Year]	20
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1-channel OSSD output

- EN ISO 13849-1: 2008	Category 2
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- IEC 61508-2	SIL CL 2
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- EN 62061 PFHD [1/h]	□
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- EN ISO 13849-1: 2008 TM [Year]	20
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2- channel OSSD Output

- EN ISO 13849-1: 2008	Category 4
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- IEC 61508-2	SIL CL 3
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- EN 62061 PFHD [1/h]	□
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- EN ISO 13849-1: 2008 TM [Year]	20
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2- channel relais output

- EN ISO 13849-1: 2008	Category 4
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- EN 62061 SIL CIL	SIL CL 3
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- EN 62061 PFHD [1/h]	□
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- EN ISO 13849-1: 2008 TM [Year]	20
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- B10d	1.000.000
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Approvals	CE, TÜV
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Environmental conditions

Max. storage temperature	-20°C ... +65 °C
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Max. operating temperature	-20°C ... +65 °C
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Electrical data

Technical data wireless safety

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- 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 ²
- fine wire	0,08 ... 0,5 mm ²
- fine wired (wire sleeve without plastic collar)	0,25 mm ²

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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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
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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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 terminals
- 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

Technical data safe OSSD outputs, auxilliary and test pulse outputs

Short-circuit proof	Yes
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Mechanical data

Installation opening of buttons	22,5 mm
Type of housing	H09

Dimensions

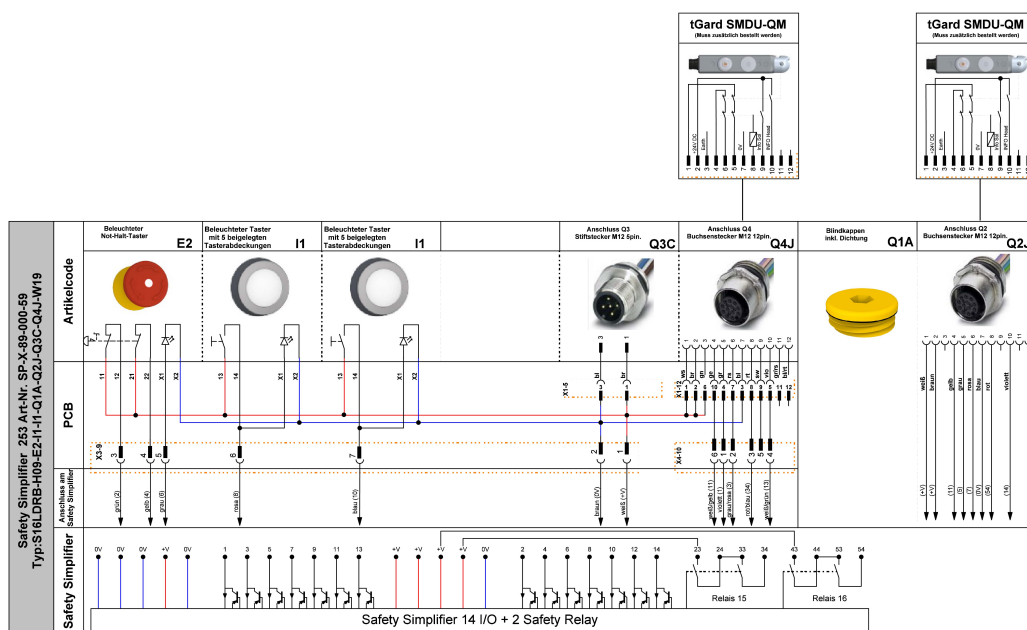
Height	44 mm
Length	253 mm
Width	42 mm

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Electrical drawings

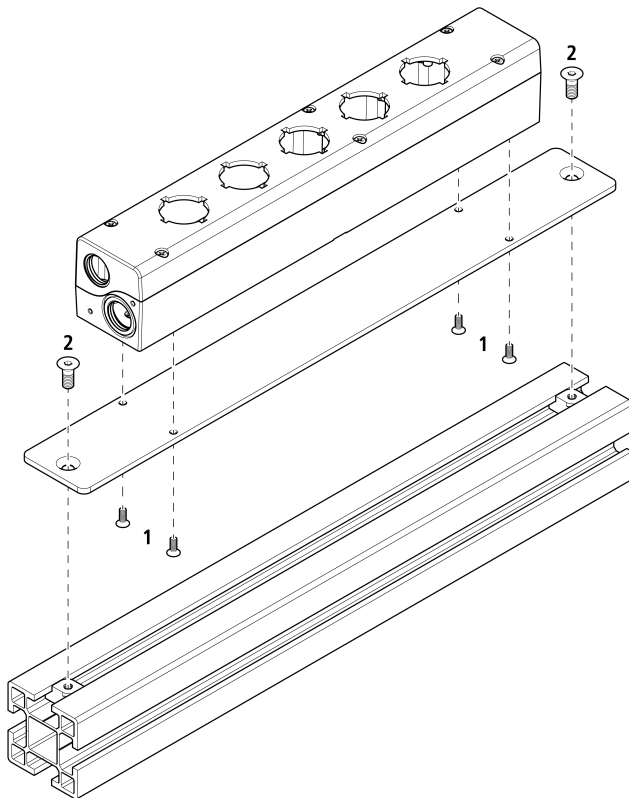
Connection example 1



S16LDRB-H09-E2-I1-I1-Q1A0-Q2J0-Q3C0-Q4J0-W19

Drawings

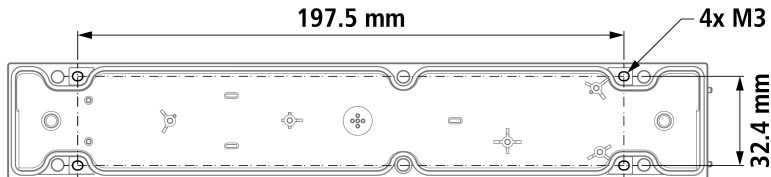
Assembly



- 1.) Gehäuse über den dafür vorgesehenen Bohrungen positionieren und mit den vier mitgelieferten M3 Senkkopfschrauben auf der Montageplatte befestigen.
- 2.) Montageplatte mit zwei M5 Senkkopfschrauben (nicht im Lieferumfang enthalten) zum Beispiel auf einer Profilschiene befestigen.

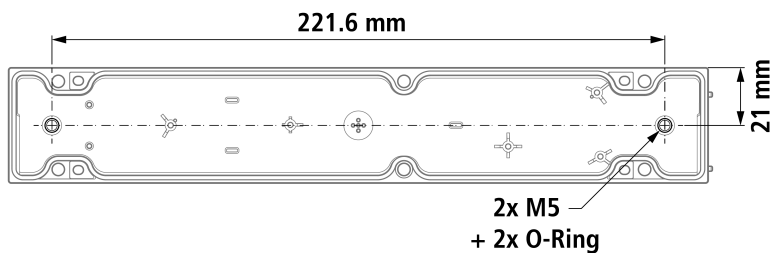
S16LDRB-H09-E2-I1-I1-Q1A0-Q2J0-Q3C0-Q4J0-W19

Assembly 2



Befestigungsvariante 1:

Von aussen, mit vier M3 Schrauben an den dafür vorgesehenen Langlöchern.



Befestigungsvariante 2:

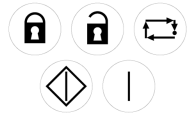
Im Gehäuseinnern, mit zwei mit O-Ringen bestückten M5 Schrauben an beiden Enden des Gehäuses. Die Öffnungen für die beiden M5 Schrauben müssen dabei herausgebrochen werden.

Equipment

Wireless Safety

Article code ZTK5	Button cap set for	1028969	
	illuminated buttons		
	Inscription label set ZB1	1028971	

S16LDRB-H09-E2-I1-I1-Q1A0-Q2J0-Q3C0-Q4J0-W19

	Inscription label set ZB2	1028972	
	Inscription label set ZB3	1028973	
	Inscription label set ZB4	1029020	
Article code ZMT	Installation wrench	1028974	
Article code ZUK	Liftingtool for button and light caps	1028975	
Article code ZMB	Mounting plate big	1019520	
Article code ZMS	Mountingplate small	1019519	

S16LDRB-H09-E2-I1-I1-Q1A0-Q2J0-Q3C0-Q4J0-W19

Article code ZSD	Screw with seal	1029016	
External antenna for Safety Simplifier, cable length 1 m	Simplifier EXTA 1 m	1029141	
External antenna for Safety Simplifier, cable length 10 m	Simplifier EXTA 10 m	1029137	
External antenna for Safety Simplifier, cable length 2 m	Simplifier EXTA 2 m	1029140	
External antenna for Safety Simplifier, cable length 5 m	Simplifier EXTA 5 m	1029139	
External antenna for Safety Simplifier, cable length 8 m	Simplifier EXTA 8 m	1029138	
Free software for the Safety Simplifier System	Simplifier Manager		
	Simplifier Monitor SRM	1019521	

S16LDRB-H09-E2-I1-I1-Q1A0-Q2J0-Q3C0-Q4J0-W19

Fastening set for Safety Simplifier for back panel

Simplifier ZHMS

1029018

mounting



Fastening set for Safety Simplifier

Simplifier ZHS

1029018



Operating elements

Universal hook

SP UH-K

1022689



Safety switches

Safety switch with locking function

THM-SMDU-QM

1016137



Downloads

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