

Safety module - PSR-SCP- 24DC/TS/M - 2986012

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Freely configurable safety module with 20 safe inputs and 4 safe outputs; 4 alarm, 2 clock, and 2 ground switching outputs; can be extended with additional I/O modules, up to SILCL 3, Cat.4/PL e, SIL 3, EN 50156, plug-in screw connection terminal blocks

Product Features

- Including PSR-TBUS connector (DIN rail connector) for adapting safe extension modules
- Including IFS-CONFSTICK memory stick for easily storing and saving the configuration
- Option for connecting fieldbus gateways for diagnostics and signaling functions
- Easy graphical configuration with the SAFECONF software
- Flexible extension with safe inputs and outputs
- Multifunctional use for a wide range of safety functions
- Quick startup thanks to user-friendly simulation and test options
- Easy graphical configuration instead of complex programming
- Up to Cat. 4/PL e according to ISO 13849-1, SILCL 3 according to IEC 62061, SIL 3 according to IEC 61508
- Safe and standard extension via INTERFACE DIN rail TBUS
- With 20 safe inputs, 4 safe outputs, 4 alarm outputs, and 2 clock outputs on a design width of just 67.5 mm
- EN 50156



Key commercial data

package_quantity	1
GTIN	4046356346979

Technical data

Note:

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	67.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 55 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C

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Technical data

Input data

Nominal input voltage U_N	24 V DC
Input voltage range in reference to U_N	0.85 ... 1.1
Typical input current at U_N	110 mA
Maximum response time	< 30 ms
Bypassing voltage dips	20 ms
Recovery time	< 10 s
Protective circuit	Surge protection Suppressor diode
Status display	4 LEDs (green, red)
Number of safe inputs	20
Nominal voltage U_N	24 V DC
Typical current consumption	4 mA
Signal level "0" signal	< 5 V
Signal level "1" signal	> 11 V
Permissible cable length	2000 m
Error detection time at 1-channel structure	< 1 s

Output data

Contact type	20 safe digital inputs
Contact type	4 safe semiconductor outputs
Contact type	4 alarm outputs
Contact type	2 grounded switching outputs
Contact type	4 clock outputs
Number of safe semiconductor outputs	4 (Cat.4 / ISO 13849)
Number of ground switching outputs	2
Nominal voltage U_N	24 V DC
Limiting continuous current	2 A (see derating curve)
Max. capacitive load	1 μ F (When using electromechanical components (e.g., contactors), the capacitive load can be disregarded.)
Max. inductive load	(A suitable and effective protective circuit is to be provided for inductive loads. A recommended measure is the use of free-wheeling diodes.)
Test pulses	< 1 ms (To ground)
Short-circuit protection	Yes
Clock outputs	Yes
Number of outputs	2
Nominal voltage U_N	24 V DC (A1 / A2)
Limiting continuous current	100 mA
Test pulses	~ 100 ms
Short-circuit protection	Yes
Alarm outputs	Yes
Number of outputs	4
Nominal voltage U_N	24 V DC (A1 / A2)

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Technical data

Output data

Limiting continuous current	100 mA
Short-circuit protection	Yes

General

Mounting position	Horizontal
Category according to EN 13849-1	4
Name	Air and creepage distances between the power circuits
Standards/regulations	DIN EN 50178
Rated surge voltage / insulation	0.8 kV / Basic isolation
Rated insulation voltage	50 V
Pollution degree	2
Surge voltage category	III
Housing material	Polyamide PA non-reinforced
Number of possible safe extension modules	10
Interfaces	USB

Connection data

Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Stripping length	7 mm
Screw thread	M3
Connection method	Screw connection

classifications

eCl@ss

eCl@ss 4.0	27371102
eCl@ss 4.1	27371102
eCl@ss 5.0	27371901
eCl@ss 5.1	27371901
eCl@ss 6.0	27371819
eCl@ss 7.0	27371819
eCl@ss 8.0	27371819

ETIM

ETIM 2.0	EC001449
ETIM 3.0	EC001449
ETIM 4.0	EC001449
ETIM 5.0	EC001449

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classifications

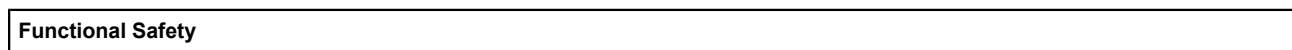
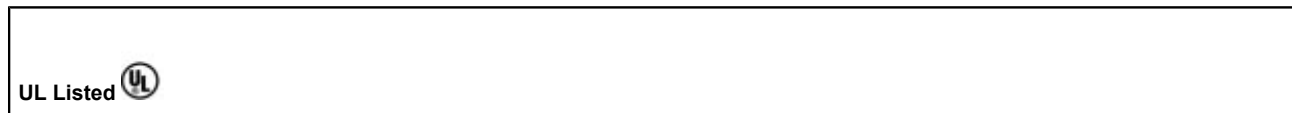
UNSPSC

UNSPSC 6.01	30211901
UNSPSC 7.0901	39121501
UNSPSC 11	39121501
UNSPSC 12.01	39121501
UNSPSC 13.2	39121501

approvals

UL Listed / GOST / cUL Listed / Functional Safety / cULus Listed /

Approval details



accessories

Starter kit

ILC 130 SBT V2 STARTERKIT - 2700993



Memory block

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accessories

IFS-CONFSTICK - 2986122



Adapter cable

CABLE-USB/MINI-USB-3,0M - 2986135



Configuration set

PSR-SAFECONF-BOX-EN - 2986164



PSR-SAFECONF-BOX-DE - 2986151



DIN rail connector

ME 22,5 TBUS 1,5/ 5-ST-3,81 GN - 2707437



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accessories

PSR-TBUS - 2890425



Gateways/Proxies

EM-PB-GATEWAY-IFS - 2297620



Solid-state contactor

PSR-FTB/20/86 - 2904477



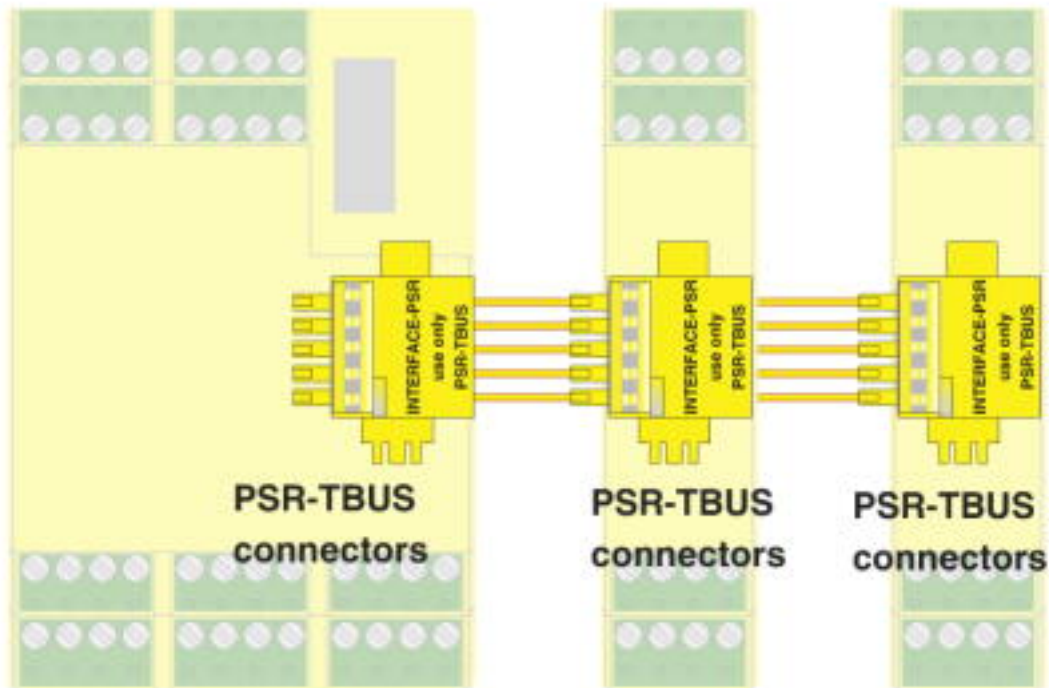
PSR-FTB/1.5/11.5 - 2904476



Drawings

Safety module - PSR-SCP- 24DC/TS/M - 2986012

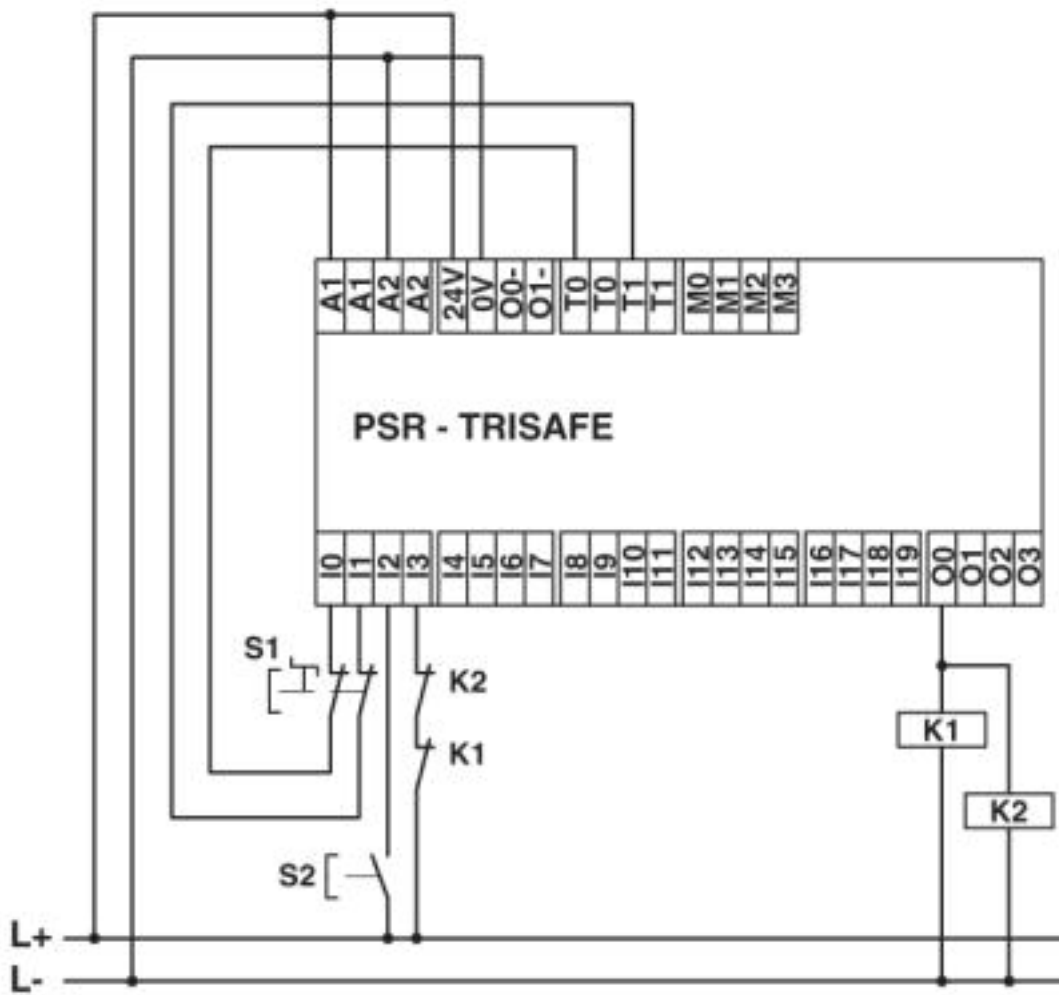
Connection diagram



The TBUS connectors carry out the cross-wiring between the modules.

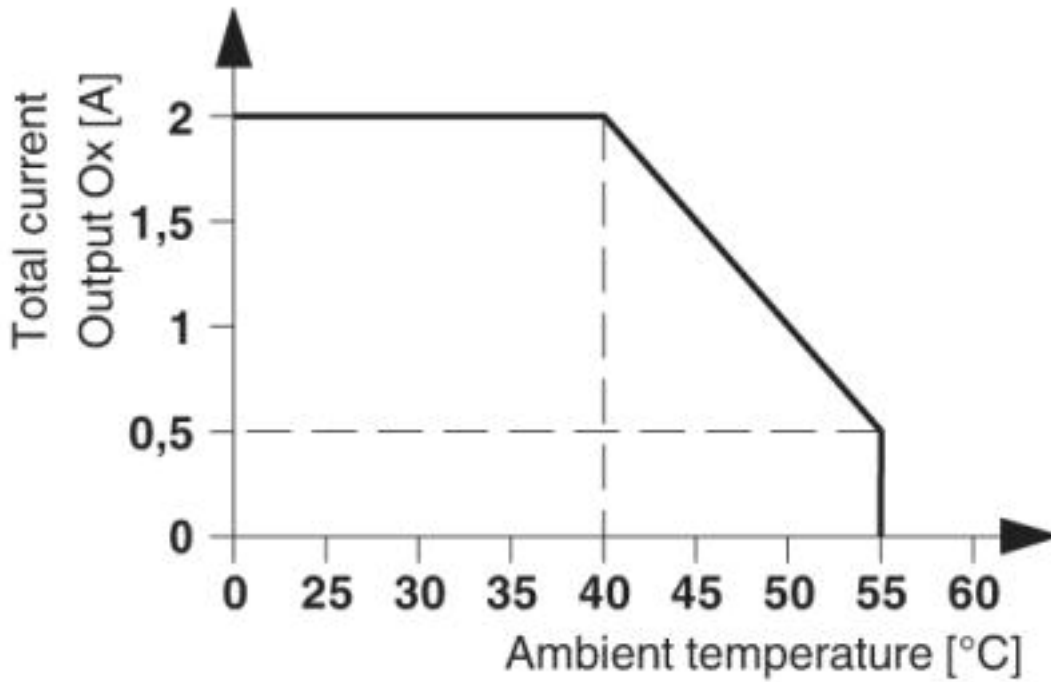
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Application drawing



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Diagram



Circuit diagram

