

# Extension module - PSR-SCP- 24DC/TS/SDI8/SDIO4 - 2986038

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PSR-TRISAFE-M input/output extension module with 8 safe inputs and 4 safe, configurable channels (choice of safe inputs or outputs), 2 clock/alarm outputs; up to SILCL 3, Cat.4/PL e, SIL 3, EN 50156, plug-in screw connection terminal blocks

## Product Features

- Flexible extension with safe inputs and outputs
- Narrow 22.5 mm housing
- 4 safe digital outputs or 4 additional digital inputs (that can be configured using SAFECNF)
- Including PSR-TBUS connector (DIN rail connector) for adapting to the PSR-TRISAFE-M master module
- Easy graphical configuration instead of complex programming
- Multifunctional use for a wide range of safety functions
- Quick startup thanks to user-friendly simulation and test options
- Up to Cat. 4/PL e according to ISO 13849-1, SILCL 3 according to IEC 62061, SIL 3 according to IEC 61508
- 8 safe digital inputs
- 2 alarm outputs or 2 clock outputs (that can be configured using SAFECNF)
- EN 50156



## Key commercial data

<b>package_quantity</b>	1
<b>GTIN</b>	4046356451871

## Technical data

Note:

<b>Utilization restriction</b>	EMC: class A product, see manufacturer's declaration in the download area
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### Dimensions

<b>Width</b>	22.5 mm
<b>Height</b>	99 mm
<b>Depth</b>	114.5 mm

### Ambient conditions

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

### Input data

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## Technical data

### Input data

Nominal input voltage $U_N$	24 V DC (A1 / A2)
Input voltage range in reference to $U_N$	0.85 ... 1.1
Typical input current at $U_N$	100 mA
Maximum response time	< 30 ms
Bypassing voltage dips	20 ms
Recovery time	< 10 s
Protective circuit	Surge protection Suppressor diode
Status display	2 LEDs (green, red)
Number of safe inputs	12 (of which 4 can be configured as input or output)
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
Status display	12 LEDs (green)

### Output data

Number of safe semiconductor outputs	4 (If the four parameterizable inputs/outputs are used as outputs)
Nominal voltage $U_N$	24 V DC
Limiting continuous current	4x 0.5 A (see derating curve)
Max. capacitive load	1 $\mu$ F (When using electromechanical components (e.g. safeguarding), 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
Number of outputs	2
Nominal voltage $U_N$	24 V DC
Limiting continuous current	50 mA
Test pulses	~ 1 ms

### 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

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## Technical data

### General

<b>Interfaces</b>	DIN rail TBUS for connection to the master module, supplied as standard
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### Connection data

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

## classifications

### eCl@ss

<b>eCl@ss 4.0</b>	27371102
<b>eCl@ss 4.1</b>	27371102
<b>eCl@ss 5.0</b>	27371901
<b>eCl@ss 5.1</b>	27371901
<b>eCl@ss 6.0</b>	27371819
<b>eCl@ss 7.0</b>	27371819
<b>eCl@ss 8.0</b>	27371819

### ETIM

<b>ETIM 2.0</b>	EC001449
<b>ETIM 3.0</b>	EC001449
<b>ETIM 4.0</b>	EC001449
<b>ETIM 5.0</b>	EC001449

### UNSPSC

<b>UNSPSC 6.01</b>	30211901
<b>UNSPSC 7.0901</b>	39121501
<b>UNSPSC 11</b>	39121501
<b>UNSPSC 12.01</b>	39121501
<b>UNSPSC 13.2</b>	39121501

## approvals

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

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### Approval details

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approvals

UL Listed

GOST

cUL Listed

Functional Safety

cULus Listed

accessories

**Starter kit**

ILC 130 SBT V2 STARTERKIT - 2700993



**Memory block**

IFS-CONFSTICK - 2986122



**Adapter cable**

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### accessories

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



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### Configuration set

PSR-SAFECONF-BOX-EN - 2986164



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PSR-SAFECONF-BOX-DE - 2986151



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### DIN rail connector

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



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PSR-TBUS - 2890425



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### Gateways/Proxies

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accessories

EM-PB-GATEWAY-IFS - 2297620



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### Solid-state contactor

PSR-FTB/20/86 - 2904477



PSR-FTB/1.5/11.5 - 2904476

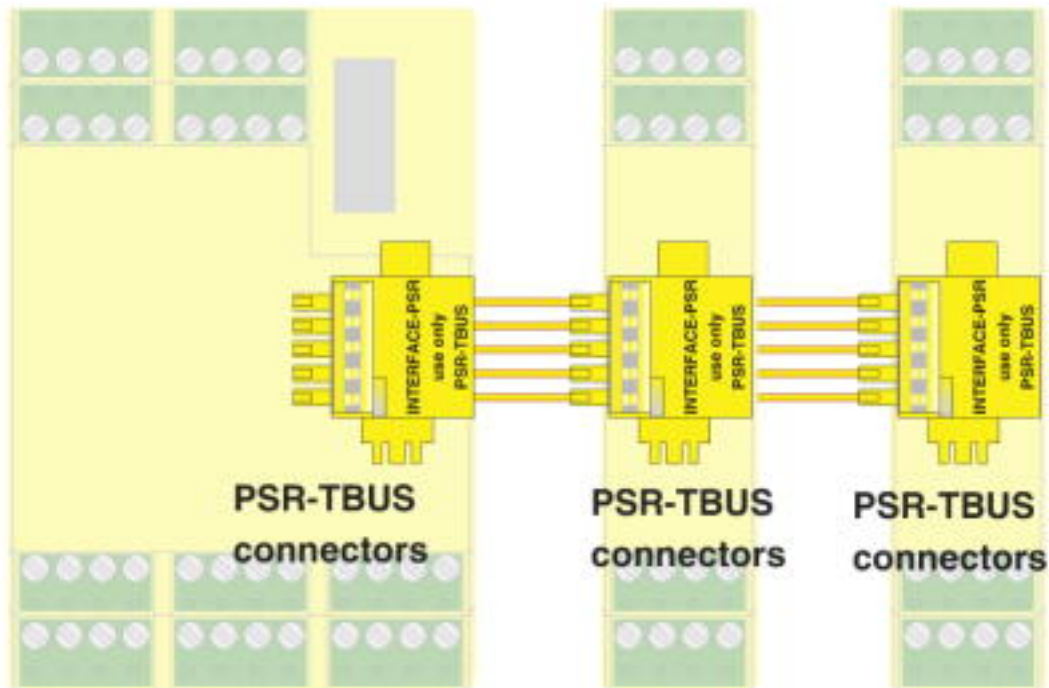


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Drawings

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Connection diagram



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

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Circuit diagram

