

## 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

### Why buy this product

- ✓ 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 SAFECONF)
- ✓ 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 SAFECONF)
- ✓ EN 50156



### Key commercial data

Packing unit	1 pc
GTIN	 4 046356 451871
Weight per Piece (excluding packing)	178.2 g
Custom tariff number	85389091
Country of origin	Germany

### Technical data

#### Note:

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

Width	22.5 mm
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### Technical data

#### Dimensions

Height	99 mm
Depth	114.5 mm

#### Ambient conditions

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

#### 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
Cycle/alarm outputs	<p></p>
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

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### Technical data

#### General

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
Interfaces	DIN rail TBUS for connection to the master module, supplied as standard

#### Connection data

Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
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

#### UNSPSC

UNSPSC 6.01	30211901
UNSPSC 7.0901	39121501
UNSPSC 11	39121501

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## Classifications

### UNSPSC

UNSPSC 12.01	39121501
UNSPSC 13.2	39121501

## Approvals

### Approvals

#### Approvals

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

#### Ex Approvals

#### Approvals submitted

### Approval details

UL Listed

GOST

cUL Listed

Functional Safety

cULus Listed

## Accessories

### Accessories

Adapter cable

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### Accessories

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



USB connecting cable: USB plug type A to USB plug type Mini-B; length: 3 m

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### Configuration set

Configuration package - PSR-SAFECONF-BOX-EN - 2986164



Configuration package for the PSR-TRISAFE safety module, consisting of the SAFECONF software, connecting cable and Quick Start Guide.

Configuration package - PSR-SAFECONF-BOX-DE - 2986151



Configuration package for the PSR-TRISAFE safety module, consisting of the SAFECONF software, connecting cable and Quick Start Guide.

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### DIN rail connector

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



DIN rail connector for DIN rail mounting. Universal for TBUS housing. Gold-plated contacts, 5-pos.

Electronic housing - PSR-TBUS - 2890425



DIN rail connector for safety switching devices, for supplying/controlling/monitoring (depending on the module)

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### Gateways/Proxies

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### Accessories

Data interface - EM-PB-GATEWAY-IFS - 2297620



The PROFIBUS module EM-PB-GATEWAY-IFS, certified as per DPV1 specification (EN 50170), connects up to 32 motor management modules (EMM-...IFS) or other INTERFACE system devices via the TBUS DIN rail connector.

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### Memory block

Memory block - IFS-CONFSTICK - 2986122



Multi-functional memory block for the INTERFACE system for easy storage and backup of the configuration.

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### Solid-state contactor

Filter terminal block - PSR-FTB/20/86 - 2904477



Terminal block for filtering test pulses of safe semiconductor outputs, plus EMI filtering of 24 V signals up to a current strength of 2 A

Filter terminal block - PSR-FTB/1.5/11.5 - 2904476



Terminal block for filtering test pulses of safe semiconductor outputs, plus EMI filtering of 24 V signals up to a current strength of 2 A

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### Starter kit

Starter kit - ILC 130 SBT V2 STARTERKIT - 2700993



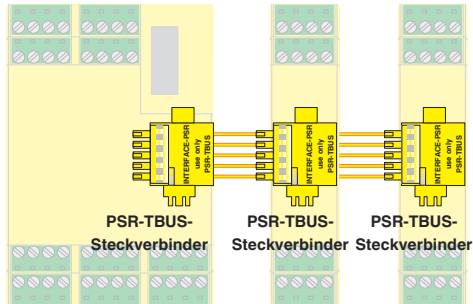
ILC 130 SBT starter kit including ILC 130 ETH, LPSDO and PSDI SafetyBridge modules, control panel, power supply unit, and accessories with pre-configured safety application

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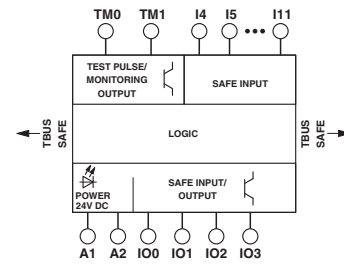
### Drawings

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

Connection diagram



Circuit diagram



PSR-TBUS DIN rail connectors are used for cross-wiring between the modules.