

Extension module - PSR-SPP- 24DC/TS/SDI8/SDIO4 - 2986041

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PSR-TRISAFE-M I/O extension module with 8 safe inputs and 4 safe parameterizable channels (choice of safe inputs or outputs), 2 clock/signal outputs; up to SILCL 3, Cat. 4/PL e, SIL 3, EN 50156, plug-in spring-cage terminal block

The figure shows a version with a screw connection

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)
- Multifunctional use for a wide range of safety functions
- Easy graphical configuration instead of complex programming
- Quick startup thanks to user-friendly simulation and test options
- Including PSR-TBUS connector (DIN rail connector) for adapting to the PSR-TRISAFE-M master module
- 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 STK
GTIN	4 046356 451369

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	112 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

Contact type	8 safe digital inputs
	4 safe digital outputs
	4 safe digital inputs
	2 clock outputs
	2 alarm outputs
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 μ 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

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Output data

Test pulses	~ 1 ms
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General

Net weight	99.99 g
Mounting type	DIN rail mounting
Degree of protection	IP54
	IP20
Min. degree of protection of inst. location	IP54
Mounting position	horizontal
Control	one and two channel
Housing material	Polyamide PA non-reinforced
Interfaces	DIN rail TBUS for connection to the master module, supplied as standard

Connection data

Connection method	Spring-cage connection
pluggable	Yes
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	1.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16
Stripping length	8 mm

Safety-related characteristic data

Designation	IEC 61508 - High demand
Safety Integrity Level (SIL)	3
Designation	IEC 61508 - Low demand
Safety Integrity Level (SIL)	3
Designation	EN ISO 13849
Performance level (PL)	e
Category	4
Designation	EN 62061
Safety Integrity Level Claim Limit (SIL CL)	3
Designation	IEC 50156
Safety Integrity Level (SIL)	3

Standards and Regulations

Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	DIN EN 50178
Rated insulation voltage	50 V
Rated surge voltage/insulation	0.8 kV / Basic isolation

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Technical data

Standards and Regulations

Degree of pollution	2
Overvoltage category	III

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	EC001417
ETIM 5.0	EC001449

UNSPSC

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

Approvals

Approvals

Approvals

UL Listed / cUL Listed / Functional Safety / EAC / cULus Listed

Ex Approvals

Approvals submitted

Approval details

Extension module - PSR-SPP- 24DC/TS/SDI8/SDIO4 - 2986041

Approvals

UL Listed

cUL Listed

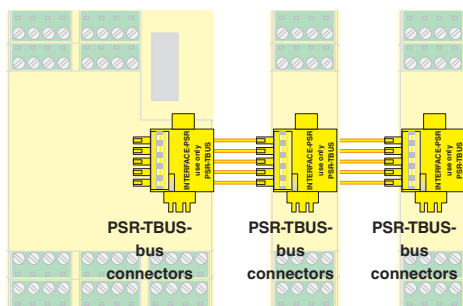
Functional Safety

EAC

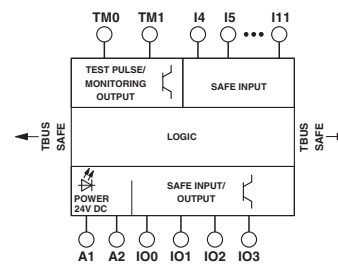
cULus Listed

Drawings

Connection diagram



Circuit diagram



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

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PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>