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## Extension module - PSR-SPP- 24DC/TS/SDOR4/4X1 - 2986106

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PSR-TRISAFE-M relay output extension module with 4 safe relay output contacts (choice of 4 single-channel or 2 two-channel relay contacts), 4 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



### Key Commercial Data

Packing unit	1 STK
GTIN	
GTIN	4046356536547

### 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
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 (via PSR-TBUS)
Input voltage range in reference to $U_N$	0.85 ... 1.1
Typical input current at $U_N$	120 mA
Protective circuit	Surge protection Suppressor diode

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### Technical data

#### Input data

Status display	2 LEDs (green, red)
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#### Output data

Contact type	4 enabling current paths
	4 alarm outputs
Contact material	AgCuNi, + 0.2 µm Au
Minimum switching voltage	5 V AC/DC
Maximum switching voltage	250 V AC/DC
	24 V DC
Limiting continuous current	4 A (see derating curve)
Inrush current, minimum	5 mA
Maximum inrush current	6 A
Switching capacity min.	60 mW
Output fuse	6 A gL/gG
Response time	max. 50 ms

#### Alarm outputs

Number of outputs	4
Voltage	24 V DC (A1 / A2)
Limiting continuous current	50 mA
Electrical isolation	yes, against relay outputs
Short-circuit protection	Yes

#### General

Nominal operating mode	100% operating factor
Net weight	274.4 g
Mounting type	DIN rail mounting
Mounting position	horizontal
Degree of protection	IP54
	IP20
Min. degree of protection of inst. location	IP54
Control	one and two channel
Housing material	Polyamide PA non-reinforced
Housing color	yellow
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 mm²
Conductor cross section solid max.	1.5 mm²
Conductor cross section flexible min.	0.2 mm²

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### Technical data

#### Connection data

Conductor cross section flexible max.	1.5 mm <sup>2</sup>
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	EN 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	250 V
Rated surge voltage/insulation	4 kV / basic insulation between output contact current paths (13/14, 23/24, 33/34, 43/44); 6 kV / safe isolation, reinforced insulation between output contact current paths (13/14, 23/24, 33/34, 43/44) and the other circuits
Degree of pollution	2
Overvoltage category	III

#### Environmental Product Compliance

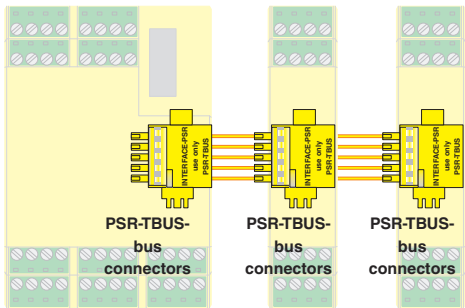
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

### Drawings

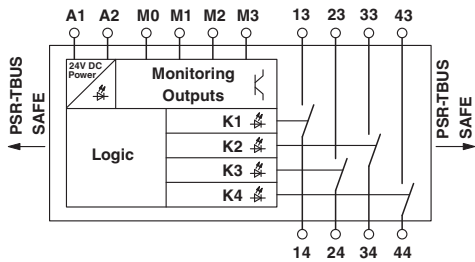


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Connection diagram



Circuit diagram



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

## Approvals

### Approvals

Approvals

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

Ex Approvals

### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
Functional Safety			01/205/5151.01/16
EAC			RU C- DE.A*30.B.01082

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### Approvals

cULus Listed



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