

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



2986106

<https://www.phoenixcontact.com/us/products/2986106>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



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 SIL 3, Cat. 4/PL e, SIL 3, EN 50156, pluggable Push-in terminal block

The figure shows a version with a screw connection

Commercial data

Item number	2986106
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN02
Product key	DNA332
GTIN	4046356536547
Weight per piece (including packing)	200 g
Weight per piece (excluding packing)	140 g
Customs tariff number	85371098
Country of origin	DE

Technical data

Notes

Note on application

Note on application	Only for industrial use
---------------------	-------------------------

Product properties

Product type	Safety device
Application	PSR-TRISAFE-M extension module
Control	1 and 2 channel

Insulation characteristics: Air clearances and creepage distances between the power circuits

Overvoltage category	III
Pollution degree	2

Times

Response time	max. 50 ms
Recovery time	< 10 s

Electrical properties

Maximum power dissipation for nominal condition	3932 mW (up to 40°C ambient temperature, at m = 4, n = 4, I _{load} = 4 A, I _{signal} = 50 mA)
	1532 mW (up to 55°C ambient temperature, at m = 4, n = 4, I _{load} = 1 A, I _{signal} = 50 mA)
Nominal operating mode	100% operating factor
Interfaces	DIN rail TBUS for connection to the master module, supplied as standard

Air clearances and creepage distances between the power circuits

Rated insulation voltage	250 V AC
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

Supply

Rated control circuit supply voltage U _S	18 V DC ... 30 V DC (Incl. all tolerances, incl. residual ripple)
Rated control circuit supply voltage U _S	24 V DC (Electrical supply via PSR-TBUS)
Rated control supply current I _S	Electrical supply via PSR-TBUS
	74 mA (At 24 V DC, relay outputs set)
	54 mA (At 24 V DC, relay outputs not set)
Protective circuit	Yes, within the scope of the operating voltage limits
Status display	1 x LED (green) , 1 x LED (red)

Output data

Maximum switching voltage	250 V AC/DC
	24 V DC

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



2986106

<https://www.phoenixcontact.com/us/products/2986106>

Minimum switching voltage	5 V AC/DC
Limiting continuous current	4 A (see derating curve)
Maximum inrush current	6 A
Inrush current, minimum	5 mA
Switching capacity (3600/h cycles)	3 A (230 V (AC 15))
	5 A (24 V (DC13))
Output fuse	6 A gL/gG
Response time	max. 50 ms

Relay

Output description	Relay contacts, safety-related N/O contacts
Number of outputs	4 (Single-channel)
	2 (Two-channel, connected in pairs)
Contact switching type	4 relay output contacts
Contact material	AgSnO ₂ (From HW03) AgCuNi +0.2 ... 0.4 µm Au (up to HW02)
Switching voltage	min. 12 V AC/DC (from HW 03)
	min. 5 V AC/DC (Up to HW02)
	max. 250 V AC/DC (For modules from HW03, see Section "Relay data" in the user manual.)
Switching current	min. 3 mA (from HW 03)
	min. 5 mA (Up to HW02)
Switching power	min. 60 mW
Switching capacity in accordance with IEC 60947-5-1	2 A (AC15)
	4 A (DC13)
Limiting continuous current	4 A (see to derating)
Mechanical service life	10x 10 ⁶ cycles
Output fuse	4 A (gL/gG)
Status display	4 x LED (green)

Signal

Output description	digital
Number of outputs	4
Voltage	24 V DC (Supply via A1/A2)
Limiting continuous current	50 mA
Protective circuit	Yes, within the scope of the operating voltage limits
Short-circuit protection	Yes

Connection data

Connection technology

pluggable	yes
-----------	-----

Conductor connection

Connection method	Push-in connection
Conductor cross-section rigid	0.2 mm ² ... 1.5 mm ²

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



2986106

<https://www.phoenixcontact.com/us/products/2986106>

Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 1.5 mm ² (only together with CRIMPFOX 6)
Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.25 mm ² ... 1.5 mm ² (only together with CRIMPFOX 6)
Conductor cross-section AWG	24 ... 16
Stripping length	8 mm

Dimensions

Width	22.5 mm
Height	112 mm
Depth	114.5 mm

Material specifications

Color	yellow
Housing material	Polyamide PA non-reinforced

Characteristics

Safety data

Stop category (EN 60204-1)	0
----------------------------	---

Safety data: EN ISO 13849

Performance level (PL)	c (1-channel parameterization)
	e (2-channel parameterization)

Safety data: EN 50156

Safety Integrity Level (SIL)	max. 3 (Reference IEC 61508)
------------------------------	------------------------------

Safety data: IEC 61508 - High demand

Safety Integrity Level (SIL)	1 (1-channel parameterization)
	3 (2-channel parameterization)

Safety data: IEC 61508 - Low demand

Safety Integrity Level (SIL)	1 (1-channel parameterization)
	3 (2-channel parameterization)

Safety data: EN IEC 62061

Safety Integrity Level (SIL)	1 (1-channel parameterization)
	3 (2-channel parameterization)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Ambient temperature (operation)	-20 °C ... 55 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C
Maximum altitude	max. 2000 m (See Appendix "Using PSR-TRISAFE modules at altitudes greater than 2000 m above sea level")

2986106

<https://www.phoenixcontact.com/us/products/2986106>

Max. permissible humidity (storage/transport)	75 % (On average, 85 % occasionally)
Max. permissible relative humidity (operation)	75 % (On average, 85 % occasionally)
Shock (operation)	10g ($\Delta t = 11$ ms, three shocks in each space direction)
	10g ($\Delta t = 16$ ms, continuous shock, 1000 shocks in each space direction)
Vibration (operation)	2g
Air pressure (operation)	70 kPa ... 108 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (up to 3500 m above sea level)

Standards and regulations

Air clearances and creepage distances between the power circuits

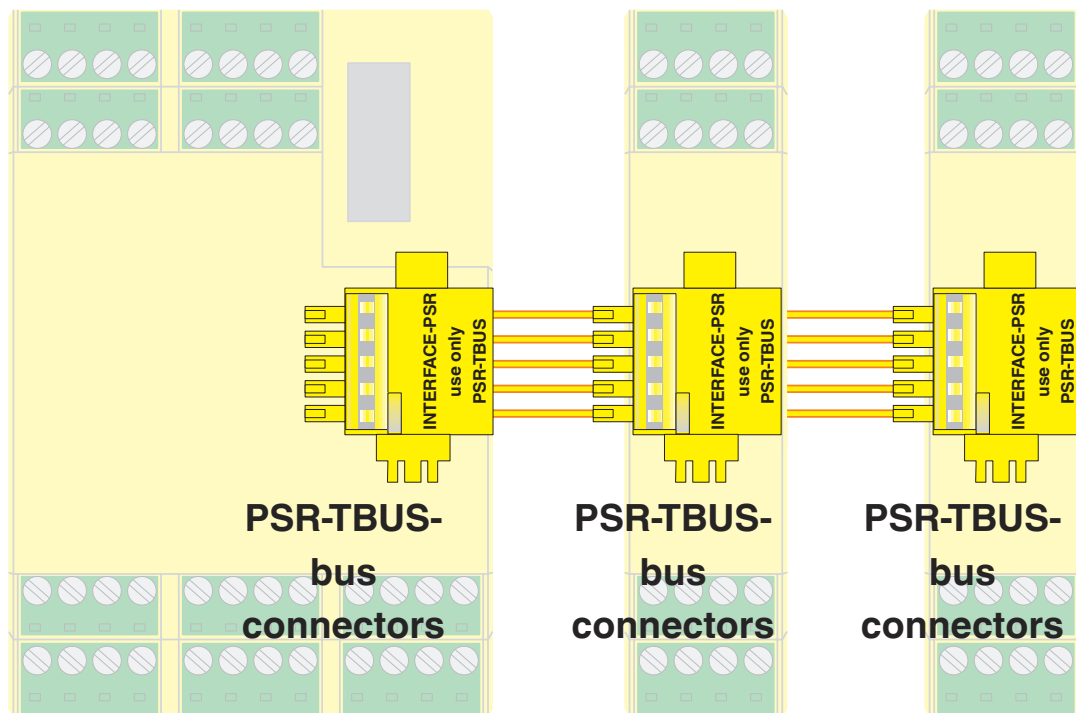
Standards/regulations	DIN EN 50178
-----------------------	--------------

Mounting

Mounting type	DIN rail mounting
Mounting position	On horizontal DIN rail

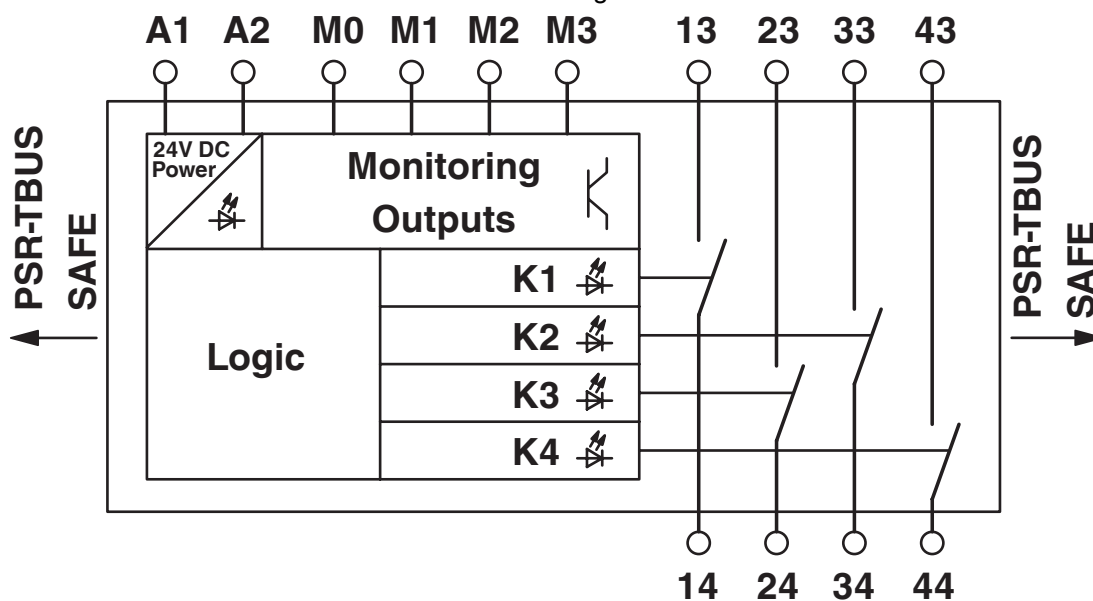
Drawings

Connection diagram



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

Circuit diagram



2986106

<https://www.phoenixcontact.com/us/products/2986106>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2986106>



cULus Listed

Approval ID: E140324



Functional Safety

Approval ID: 01/205/5151.04/20

2986106

<https://www.phoenixcontact.com/us/products/2986106>

Classifications

ECLASS

ECLASS-13.0

27371819

ETIM

ETIM 9.0

EC001449

UNSPSC

UNSPSC 21.0

39122200

2986106

<https://www.phoenixcontact.com/us/products/2986106>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol(CAS: 79-94-7)

Phoenix Contact 2026 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA
 586 Fulling Mill Road
 Middletown, PA 17057, United States
 (+717) 944-1300
info@phoenixcon.com