

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.



1-channel contact extension with TBUS interface, 4 N/O contacts, 1 N/C contact, 1 confirmation current path, adjustable dropout delay of 0.5 ... 30 s, Cat. 3, PL e in accordance with EN ISO 13849, width: 22.5 mm, pluggable Push-in terminal block

Your advantages

- Up to Cat. 3/PL e in accordance with EN ISO 13849-1, SIL 3 in accordance with EN IEC 62061, SIL 3 in accordance with IEC 61508
- Each with 4 enabling, 1 signaling, and 1 confirmation current path, all with dropout delay
- 1-channel control

Commercial data

Item number	2981525
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN01
Product key	DNA233
GTIN	4017918996819
Weight per piece (including packing)	233.18 g
Weight per piece (excluding packing)	168.02 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 relays
Product family	PSRclassic
Application	Extension module
Control	1-channel
Mechanical service life	approx. 10^7 cycles
Relay type	Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3

Insulation characteristics

Overvoltage category	III
Degree of pollution	2

Electrical properties

Maximum power dissipation for nominal condition	2.02 W
Nominal operating mode	100% operating factor
Rated insulation voltage	250 V
Rated surge voltage/insulation	4 kV / basic isolation (safe isolation, reinforced insulation and 6 kV between input circuit/N/C contacts and enabling current paths).

Input data

General

Nominal input voltage U_N	24 V DC
Input voltage range in reference to U_N	0.85 ... 1.1
Typical input current at U_N	84 mA
Typical response time	20 ms
Typical release time range	0.5 s ... 38 s ± 20 % (BG rating to max. 30 s)
Recovery time	1 s
Protective circuit	Surge protection; Suppressor diode Fuse; PTC resistor
Operating voltage display	Green LED
Status display	LED (green)

Output data

Contact switching type	4 delayed enabling current paths 1 delayed signaling current path 1 delayed confirmation current path
------------------------	---

PSR-SPP- 24DC/URD3/4X1/2X2 - Extension module



2981525

<https://www.phoenixcontact.com/us/products/2981525>

Contact material	AgSnO ₂
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	15 V AC/DC
Limiting continuous current	6 A (N/O contact) 3 A (N/C contact)
Maximum inrush current	6 A (N/O contact) 3 A (N/C contact)
Inrush current, minimum	25 mA
Sq. Total current	$50 \text{ A}^2 (I_{TH}^2 = I_1^2 + I_2^2 + I_3^2 + I_4^2)$
Interrupting rating (ohmic load) max.	114 W (24 V DC, $\tau = 0 \text{ ms}$, N/C contact 65/66: 72 W) 288 W (48 V DC, $\tau = 0 \text{ ms}$) 77 W (110 V DC, $\tau = 0 \text{ ms}$) 88 W (220 V DC, $\tau = 0 \text{ ms}$) 1500 VA (250 V AC, $\tau = 0 \text{ ms}$, N/C contact 65/66: 750 VA)
Maximum interrupting rating (inductive load)	48 W (24 V DC, $\tau = 40 \text{ ms}$) 40 W (48 V DC, $\tau = 40 \text{ ms}$) 35 W (110 V DC, $\tau = 40 \text{ ms}$) 33 W (220 V DC, $\tau = 40 \text{ ms}$)
Switching capacity min.	0.4 W
Switching capacity (360/h cycles)	6 A (24 V DC) 5 A (230 V AC)
Switching capacity (3600/h cycles)	3 A (24 V (DC13)) 3 A (230 V (AC15))
Output fuse	10 A gL/gG NEOZED (N/O contact) 4 A gL/gG NEOZED (N/C contact)

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
Conductor cross-section flexible	0.2 mm ² ... 1.5 mm ²
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 (Housing)	yellow (RAL 1018)
Housing material	PA

Characteristics

Safety data

Stop category	1
---------------	---

Safety data: EN ISO 13849

Category	3 (In conjunction with suitable evaluating device)
Performance level (PL)	e (In conjunction with suitable evaluating device)

Safety data: IEC 61508 - High demand

Safety Integrity Level (SIL)	3 (In conjunction with suitable evaluating device)
------------------------------	--

Safety data: IEC 61508 - Low demand

Safety Integrity Level (SIL)	3 (In conjunction with suitable evaluating device)
------------------------------	--

Safety data: EN IEC 62061

Safety Integrity Level (SIL)	3 (In conjunction with suitable evaluating device)
------------------------------	--

Environmental and real-life conditions

Ambient conditions

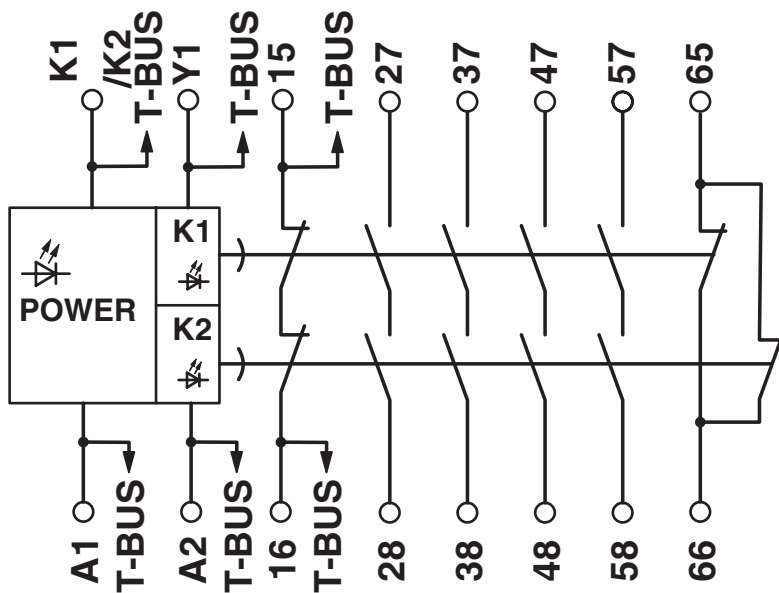
Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Ambient temperature (operation)	-20 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Maximum altitude	max. 2000 m (Above sea level)
Max. permissible humidity (storage/transport)	75 % (on average, 85% infrequently, non-condensing)
Max. permissible relative humidity (operation)	75 % (on average, 85% infrequently, non-condensing)

Mounting

Mounting type	DIN rail mounting
Mounting position	any

Drawings

Circuit diagram



Block diagram

PSR-SPP- 24DC/URD3/4X1/2X2 - Extension module



2981525

<https://www.phoenixcontact.com/us/products/2981525>

Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2981525>



cULus Listed

Approval ID: E140324



Functional Safety

Approval ID: 968/EZ 366.05/23

PSR-SPP- 24DC/URD3/4X1/2X2 - Extension module



2981525

<https://www.phoenixcontact.com/us/products/2981525>

Classifications

ECLASS

ECLASS-13.0	27371819
ECLASS-15.0	27371819
ECLASS-15.0 ASSET	27250101

ETIM

ETIM 9.0	EC001449
----------	----------

UNSPSC

UNSPSC 21.0	39122200
-------------	----------

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	34, 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)
SCIP	9523db36-0851-4e1c-ac0e-e3555eac1c4f