

PSR-SPP- 24UC/URM/3X1/3X2 - Coupling relay



2981842

<https://www.phoenixcontact.com/us/products/2981842>

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.



Safe coupling relay with force-guided contacts, 3 N/O contacts, 3 N/C contacts, width: 22.5 mm, pluggable Push-in terminal block

The figure shows a version with a screw connection

Your advantages

- Up to Cat. 1/PL c in accordance with EN ISO 13849-1, SIL 1 in accordance with IEC 61508
- Safe readback due to force-guided signal contact in accordance with EN 50205
- Easy proof test according to IEC 61508 thanks to integrated signal contact
- 1 or 2-channel control
- 3 enabling current paths, 3 confirmation current paths

Commercial data

Item number	2981842
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN01
Product key	DNA162
GTIN	4046356138611
Weight per piece (including packing)	145.9 g
Weight per piece (excluding packing)	153 g
Customs tariff number	85364900
Country of origin	DE

Technical data

Product properties

Product type	Coupling relay
Product family	PSRclassic
Application	Safe switch off
	High demand
	Low demand
Control	1 and 2 channel
Mechanical service life	10x 10 ⁶ 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

Times

Typ. starting time with U _s	typ. 15 ms (with U _s when controlled via A1)
Typical release time	typ. 15 ms (with U _s when controlled via A1)
Restart time	< 1 s (Boot time)
Recovery time	< 500 ms

Electrical properties

Maximum power dissipation for nominal condition	6.11 W (at U _B = 26.4 V DC, U _S = 24 V, I _S = 45 mA, n = 1, I _L ² = 48 A ² , R _{contact} = 0.1 Ω _{max})
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 and enabling current paths.)

Supply

Designation	A1/A2
Rated control circuit supply voltage U _S	24 V AC/DC -15 % / +10 %
Rated control supply current I _S	typ. 45 mA
Power consumption at U _S	typ. 1.08 W
Filter time	1 ms (at A1-A2; test pulse width)
	1 s (at A1-A2; test pulse rate)
Protective circuit	Surge protection
	Suppressor diode

Output data

Relay: Enabling current paths (13/14, 23/24, 33/34)

Number of outputs	3
Contact switching type	3 enabling current paths

PSR-SPP- 24UC/URM/3X1/3X2 - Coupling relay



2981842

<https://www.phoenixcontact.com/us/products/2981842>

Contact material	AgSnO ₂
Switching voltage	min. 5 V AC/DC
	max. 250 V AC/DC
Switching power	min. 50 mW
Inrush current	min. 10 mA
	max. 8 A
Switching capacity	5 A (24 V (DC13))
	5 A (250 V (AC15))
Limiting continuous current	6 A
Sq. Total current	48 A ²
Switching frequency	max. 0.5 Hz
Mechanical service life	10x 10 ⁶ cycles
Interrupting rating (ohmic load) max.	see load limit curve
Maximum interrupting rating (inductive load)	48 W (N/O contact, 24 V DC, τ = 40 ms)
	40 W (N/O contact, 48 V DC, τ = 40 ms)
	36 W (N/O contact, 60 V DC, τ = 40 ms)
	35 W (N/O contact, 110 V DC, τ = 40 ms)
	33 W (N/O contact, 220 V DC, τ = 40 ms)
Output fuse	10 A gL/gG NEOZED
	4 A gL/gG NEOZED (Low demand)

Relay: Confirmation current paths (41/42, 51/52, 61/62)

Number of outputs	3
Contact switching type	3 signaling current paths
Contact material	AgSnO ₂
Switching voltage	min. 5 V AC/DC
	max. 250 V AC/DC
Switching power	min. 50 mW
Inrush current	min. 10 mA
	max. 8 A
Switching capacity	5 A (DC13, 24 V)
	5 A (AC15, 250 V)
Limiting continuous current	6 A
Sq. Total current	48 A ²
Mechanical service life	10x 10 ⁶ cycles
Output fuse	6 A gL/gG NEOZED

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- 24UC/URM/3X1/3X2 - Coupling relay



2981842

<https://www.phoenixcontact.com/us/products/2981842>

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

Signaling

Operating voltage display	1 x LED (green)
---------------------------	-----------------

Dimensions

Width	22.5 mm
Height	114.5 mm
Depth	112 mm

Material specifications

Color (Housing)	yellow (RAL 1018)
Housing material	PA

Characteristics

Safety data

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

Safety data: EN ISO 13849

Performance level (PL)	c
------------------------	---

Safety data: IEC 61508 - High demand

Safety Integrity Level (SIL)	1
------------------------------	---

Safety data: IEC 61508 - Low demand

Safety Integrity Level (SIL)	1
------------------------------	---

Safety data

Safety Integrity Level (SIL)	1
------------------------------	---

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)
Shock	15g (In the event of stress caused by shock, contact reactions are possible for up to 1 ms.)

PSR-SPP- 24UC/URM/3X1/3X2 - Coupling relay



2981842

<https://www.phoenixcontact.com/us/products/2981842>

Vibration (operation)	10 Hz ... 150 Hz, 2g (In the event of stress caused by vibration, contact reactions are possible for up to 1 ms.)
-----------------------	---

Approvals

CE

Certificate	CE-compliant
-------------	--------------

Mounting

Mounting type	DIN rail mounting
Mounting position	vertical or horizontal

PSR-SPP- 24UC/URM/3X1/3X2 - Coupling relay



2981842

<https://www.phoenixcontact.com/us/products/2981842>

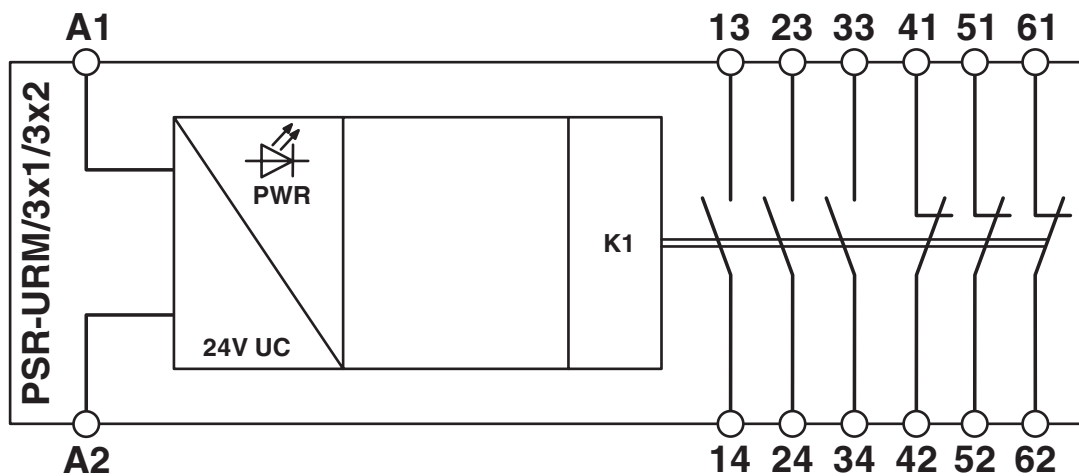
Drawings

Application drawing



Reliable signal exchange between two systems with confirmation function.

Block diagram




Block diagram

2981842


<https://www.phoenixcontact.com/us/products/2981842>


Approvals


 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2981842>


 **Functional Safety**
Approval ID: 3535 2399

 **Functional Safety**
Approval ID: 3535 2399

 **cULus Listed**
Approval ID: E140324

 **cULus Listed**
Approval ID: E140324

 **Functional Safety**
Approval ID: 4478015124312

 **Functional Safety**
Approval ID: 4478015124312

PSR-SPP- 24UC/URM/3X1/3X2 - Coupling relay



2981842

<https://www.phoenixcontact.com/us/products/2981842>

Classifications

ECLASS

ECLASS-13.0	27371819
ECLASS-15.0	27371819

ETIM

ETIM 10.0	EC001449
-----------	----------

UNSPSC

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

PSR-SPP- 24UC/URM/3X1/3X2 - Coupling relay



2981842

<https://www.phoenixcontact.com/us/products/2981842>

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-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	fea6b4af-8451-4859-8e52-22898f8b4115

EF3.1 Climate Change

CO2e kg	2.178 kg CO2e
---------	---------------

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