

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



2981842

<https://www.phoenixcontact.com/mx/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

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	02
Product key	DNA162
Catalog page	Page 246 (C-6-2019)
GTIN	4046356138611
Weight per piece (including packing)	153 g
Weight per piece (excluding packing)	153 g
Customs tariff number	85364900
Country of origin	DE

Technical data

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
----------	---

Product properties

Product type	Coupling relay
Product family	PSRclassic
Application	Safe switch off
	High demand
	Low demand
Mechanical service life	10x 10 ⁶ cycles
Relay type	Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3

Times

Restart time	< 1 s (Boot time)
--------------	-------------------

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 , $R_{\text{contact}} = 0.1 \Omega$)
Nominal operating mode	100% operating factor

Air clearances and creepage distances between the power circuits

Rated insulation voltage	250 V
	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

Rated control circuit supply voltage U_S	20.4 V AC/DC ... 26.4 V AC/DC
--	-------------------------------

Input data

General

Rated control circuit supply voltage U_S	24 V AC/DC -15 % / +10 %
Power consumption at U_S	typ. 1.08 W
Rated control supply current I_S	typ. 45 mA
Input voltage range	20.4 V AC/DC ... 26.4 V AC/DC
Inrush current	typ. 350 mA DC ($\Delta t < 1 \mu\text{s}$ at U_S)
	typ. 350 mA AC ($\Delta t = 2$ ms at U_S)
Typ. starting time with U_S	typ. 15 ms (when controlled via A1)
Typical release time	typ. 15 ms (when controlled via A1)
Recovery time	< 500 ms

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



2981842

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

Maximum switching frequency	0.5 Hz
Protective circuit	Surge protection; Suppressor diode
Operating voltage display	1 x green LED

Output data

Contact switching type	3 enabling current paths
	3 confirmation current paths
Contact material	AgSnO ₂
Maximum switching voltage	230 V AC/DC (Observe the load curve)
Minimum switching voltage	5 V AC/DC
Limiting continuous current	6 A (N/O contact)
	6 A (N/C contact)
Maximum inrush current	8 A
Inrush current, minimum	10 mA
Sq. Total current	48 A ²
Interrupting rating (ohmic load) max.	For additional values, see load 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)
Switching capacity	min. 50 mW
Switching capacity in accordance with IEC 60947-5-1	5 A (24 V (DC13))
	5 A (230 V (AC 15))
Output fuse	10 A gL/gG (N/O contact)
	4 A gL/gG (N/O contact, for low-demand applications)
	6 A gL/gG (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
Tightening torque	0.6 Nm

Dimensions

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



2981842

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

Width	22.5 mm
Height	114.5 mm
Depth	112 mm

Material specifications

Housing material	Polyamide
------------------	-----------

Characteristics

Safety data

Stop category	0
---------------	---

Safety data: EN ISO 13849

Category	1
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 2 ms.)
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
-------------	--------------

Standards and regulations

Air clearances and creepage distances between the power circuits

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

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



2981842

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

Mounting

Mounting type	DIN rail mounting
Mounting position	vertical or horizontal
Connection method	Push-in connection

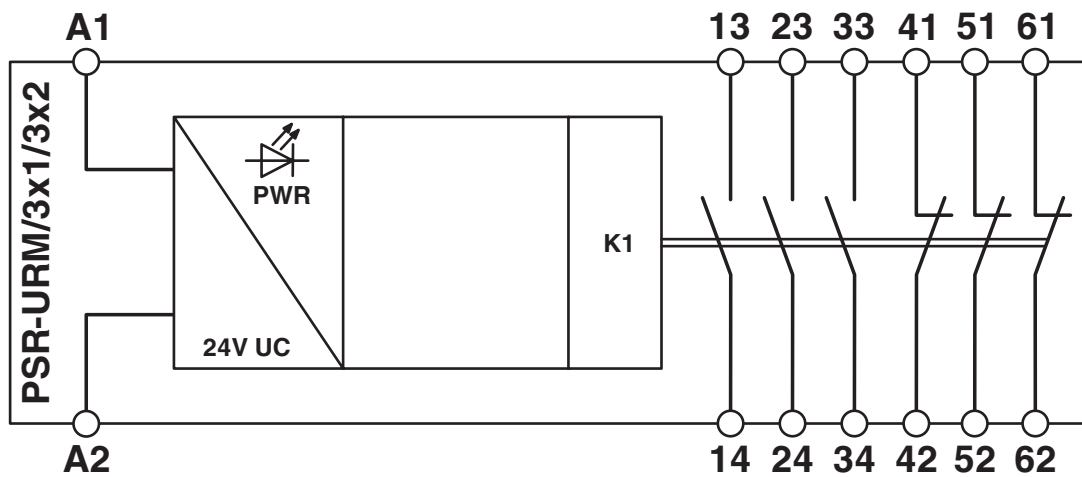
PSR-SPP- 24UC/URM/3X1/3X2 - Coupling relay

2981842

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

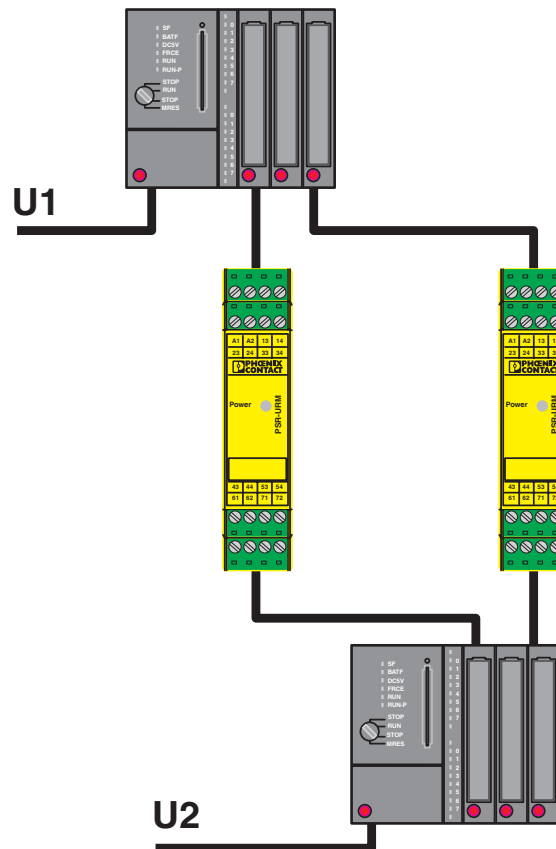
Drawings

Block diagram



Block diagram

Application drawing



Reliable signal exchange between two systems with confirmation function.

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



2981842

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

Approvals

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



EAC

Approval ID: RU C-DE.A*30.B.01082



UL Listed

Approval ID: FILE E 140324



cUL Listed

Approval ID: FILE E 140324



Functional Safety

Approval ID: 44-780-15124312



Functional Safety

Approval ID: 44-205-15124312

cULus Listed

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



2981842

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

Classifications

ECLASS

ECLASS-11.0	27371819
ECLASS-13.0	27371819
ECLASS-12.0	27371819

ETIM

ETIM 8.0	EC001449
----------	----------

UNSPSC

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

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



2981842

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

Environmental product compliance

REACH SVHC	Lead 7439-92-1
	Hexahydromethylphthalic anhydride
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

Phoenix Contact 2023 © - all rights reserved
<https://www.phoenixcontact.com>

PHOENIX CONTACT S.A. de C.V.
Lago Alberto No. 319 - Piso 9
Colonia Granada, Delegación Miguel Hidalgo, México, Ciudad de México, C.P. 11520
+52/55/1101-1380
ventas@phoenixcontact.com.mx