

PSR-SPP- 24UC/URM/5X1/2X2 - Coupling relay



2963970

<https://www.phoenixcontact.com/us/products/2963970>

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, 5 N/O contacts, 2 N/C contacts, 1-channel, width: 22.5 mm, pluggable Push-in terminal block

The figure shows a version with a screw connection

Your advantages

- Suitable up to category 1, PL c (EN ISO 13849-1), SIL 1 (EN IEC 62061), SIL 1 (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
- 5 enabling current paths, 2 confirmation current paths

Commercial data

Item number	2963970
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN01
Product key	DNA162
GTIN	4017918904791
Weight per piece (including packing)	170 g
Weight per piece (excluding packing)	148 g
Customs tariff number	85364900
Country of origin	DE

PSR-SPP- 24UC/URM/5X1/2X2 - Coupling relay



2963970

<https://www.phoenixcontact.com/us/products/2963970>

Technical data

Notes

Note on application

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

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	II
Degree of pollution	2

Times

Typ. starting time with U _s	typ. 20 ms (with U _s / when controlled via A1)
Typical release time	typ. 20 ms (At U _s /on demand via A1)
Restart time	< 1 s (Boot time)
Recovery time	< 500 ms

Electrical properties

Maximum power dissipation for nominal condition	8.56 W (at U _B = 26.4 V DC, U _S = 24 V, I _S = 47 mA, n = 1, I _L ² = 72 A ² , R _{contact} = 0.1 Ω _{max})
Nominal operating mode	100% operating factor
Rated insulation voltage	250 V
Rated surge voltage/insulation	Safe isolation 4 kV between all current paths and housing

Supply

Rated control circuit supply voltage U _S	24 V AC/DC -15 % / +10 %
Rated control supply current I _S	typ. 47 mA
Power consumption at U _S	typ. 1.2 W
Inrush current	typ. 350 mA DC (Δt < 1 μs at U _S) typ. 350 mA AC (Δt = 2 ms at U _S)
Protective circuit	Surge protection Varistor

Output data

PSR-SPP- 24UC/URM/5X1/2X2 - Coupling relay



2963970

<https://www.phoenixcontact.com/us/products/2963970>

Relay: Enabling current paths (13/14, 23/24, 33/34, 43/44, 53/54)

Number of outputs	5
Contact switching type	5 enabling current paths
Contact material	AgSnO ₂
Switching voltage	min. 5 V AC/DC
	max. 230 V AC/DC
Switching power	min. 50 mW
Inrush current	min. 10 mA
	max. 6 A
Switching capacity	3 A (24 V (DC13))
	3 A (230 V (AC15))
Switching capacity (360/h cycles)	4 A (24 V (DC13))
	4 A (230 V (AC15))
Limiting continuous current	6 A
Sq. Total current	72 A ²
Switching frequency	max. 0.5 Hz
Interrupting rating (ohmic load) max.	144 W (N/O contact, 24 V DC, τ = 0 ms)
	288 W (N/O contact, 48 V DC, τ = 0 ms)
	240 W (N/O contact, 60 V DC, τ = 0 ms)
	110 W (N/O contact, 110 V DC, τ = 0 ms)
	88 W (N/O contact, 220 V DC, τ = 0 ms)
	1380 VA (N/O contact, 230 V AC, τ = 0 ms)
Maximum interrupting rating (inductive load)	42 W (N/O contact, 24 V DC, τ = 40 ms)
	42 W (N/O contact, 48 V DC, τ = 40 ms)
	42 W (N/O contact, 60 V DC, τ = 40 ms)
	42 W (N/O contact, 110 V DC, τ = 40 ms)
	42 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: Signaling current path (61/62, 71/72)

Number of outputs	2
Contact switching type	2 signaling current paths
Contact material	AgSnO ₂
Switching voltage	min. 5 V AC/DC
	max. 230 V AC/DC
Switching power	min. 50 mW
Inrush current	min. 10 mA
	max. 6 A
Switching capacity	3 A (24 V (DC13))
	3 A (230 V (AC15))
Switching capacity (360/h cycles)	4 A (24 V (DC13))
	4 A (230 V (AC15))
Limiting continuous current	3 A

PSR-SPP- 24UC/URM/5X1/2X2 - Coupling relay



2963970

<https://www.phoenixcontact.com/us/products/2963970>

Sq. Total current	72 A ²
Switching frequency	max. 0.5 Hz
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
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

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
------------------------------	---

2963970

<https://www.phoenixcontact.com/us/products/2963970>

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 ... 85 °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.)
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	any

PSR-SPP- 24UC/URM/5X1/2X2 - Coupling relay



2963970

<https://www.phoenixcontact.com/us/products/2963970>

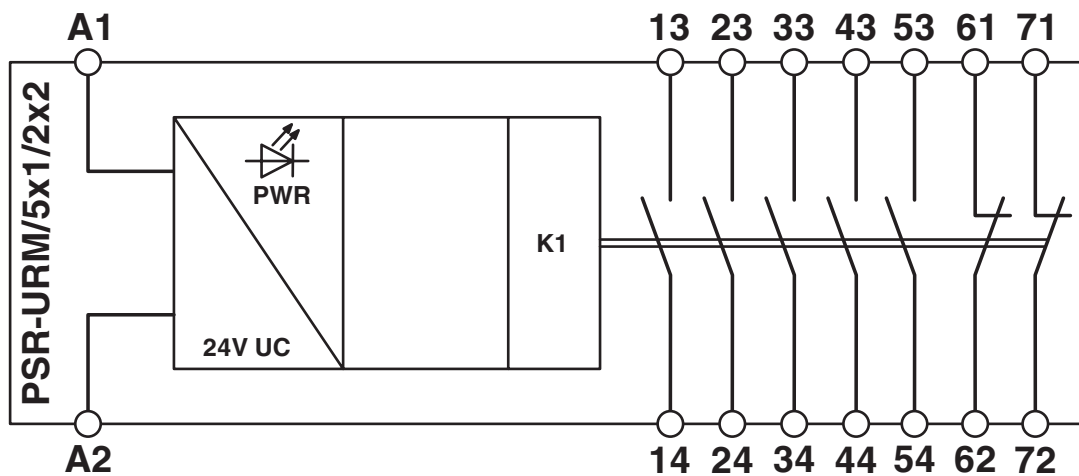
Drawings

Application drawing



Reliable signal exchange between two systems with confirmation function.

Block diagram



Block diagram

PSR-SPP- 24UC/URM/5X1/2X2 - Coupling relay



2963970

<https://www.phoenixcontact.com/us/products/2963970>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2963970>



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/5X1/2X2 - Coupling relay



2963970

<https://www.phoenixcontact.com/us/products/2963970>

Classifications

ECLASS

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

ETIM

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

UNSPSC

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

PSR-SPP- 24UC/URM/5X1/2X2 - Coupling relay



2963970

<https://www.phoenixcontact.com/us/products/2963970>

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	e7f53381-e4de-4980-9f18-f5892eb18940

EF3.1 Climate Change

CO2e kg	3.101 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