

# PSR-PE20-1NO-24DC-SC - Coupling relay



1119573

<https://www.phoenixcontact.com/us/products/1119573>

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.



Coupling relay for SIL 3 low-demand applications, couples digital output signals to the I/O, 1 undelayed enabling current path, safe state off applications, test pulse filter, plug-in screw terminal block

## Product description

The safe coupling relay couples digital output signals from failsafe controllers to I/O devices and is used for power adaptation and electrical isolation. The safe coupling relay can be used in low-demand applications. The safe coupling relay safely interrupts circuits.

## Your advantages

- Up to SIL 3 in accordance with IEC 61508, IEC 61511, and IEC 50156
- Low housing width of just 12.5 mm
- Long service life thanks to filtering of controller test pulses
- 1 enabling current path



## Commercial data

Item number	1119573
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN01
Product key	DN1121
GTIN	4063151049638
Weight per piece (including packing)	115.9 g
Weight per piece (excluding packing)	93.23 g
Customs tariff number	85371098

# PSR-PE20-1NO-24DC-SC - Coupling relay



1119573

<https://www.phoenixcontact.com/us/products/1119573>

Country of origin	DE
-------------------	----

## 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 Low demand
Set comprises	1272930 PSR-PE20-1NO-24DC-SC-SET60
Control	1-channel
Mechanical service life	10x 10 <sup>6</sup> cycles
Relay type	Electromechanical relay in accordance with IEC/EN 61810

#### Insulation characteristics

Overvoltage category	III
Degree of pollution	2

#### Times

Typ. starting time with U <sub>S</sub>	< 70 ms (when controlled via A3 at U <sub>S</sub> )
Typical release time	< 50 ms (on demand via A3 at U <sub>S</sub> )
Recovery time	500 ms

### Electrical properties

Maximum power dissipation for nominal condition	2.36 W (U <sub>B</sub> = 26.4 V, U <sub>S</sub> = 24 V, I <sub>S</sub> = 40 mA, I <sub>L</sub> <sup>2</sup> = 16 A, R <sub>contact</sub> = 0.075 Ω)
Nominal operating mode	100% operating factor
Rated insulation voltage	250 V AC
Rated surge voltage/insulation	Safe isolation, reinforced insulation 6.4 kV between 250 V load current paths and 24 V logic paths Basic insulation 4 kV between all current paths and housing

#### Supply

Designation	3/4
Rated control circuit supply voltage U <sub>S</sub>	21.6 V DC ... 26.4 V DC
Rated control circuit supply voltage U <sub>S</sub>	24 V DC -10 % ... +10 %
Rated control supply current I <sub>S</sub>	40 mA
Power consumption at U <sub>S</sub>	960 mW
Inrush current	typ. 100 mA (Δt = 10 ms at U <sub>S</sub> )
Filter time	1 ms (in the event of voltage dips at U <sub>S</sub> )
Protective circuit	Serial protection against polarity reversal; Suppressor diode, 38.6 V/600 W (connections 3/4)

## Output data

### Relay: Enabling current path (5/6)

Output description	3 N/O contacts in series, without delay, floating
Number of outputs	1 (safety-related)
Contact switching type	1 enabling current path
Contact material	AgSnO <sub>2</sub> , gold-plated
Switching voltage	min. 12 V DC max. 250 V AC/DC (Observe the load curve)
Switching power	min. 120 mW
Inrush current	min. 10 mA max. 4 A
Limiting continuous current	4 A (Low demand)
Sq. Total current	16 A <sup>2</sup> (Low-demand, observe derating)
Switching frequency	1 Hz
Mechanical service life	10x 10 <sup>6</sup> cycles
Output fuse	4 A gL/gG (for low-demand applications)

## Connection data

### Conductor connection

Connection method	Screw connection
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 12
Stripping length	7 mm
Screw thread	M3
Tightening torque	0.6 Nm

## Signaling

Status display	1 x LED (green)
----------------	-----------------

## Dimensions

Width	12.5 mm
Height	99 mm
Depth	114.5 mm

## Material specifications

Color (Housing)	traffic gray B (RAL 7043)
Housing material	PA

## Characteristics

Safety data: IEC 61508 - Low-demand for 1-channel wiring (1oo3 structure without diagnostics)

Safety Integrity Level (SIL)	3
------------------------------	---

1119573

<https://www.phoenixcontact.com/us/products/1119573>

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Ambient temperature (operation)	-40 °C ... 70 °C (observe derating)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Maximum altitude	≤ 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
Vibration (operation)	10 Hz ... 150 Hz, 2g

## Approvals

### CE

Identification	CE-compliant
----------------	--------------

## Mounting

Mounting type	DIN rail mounting
Assembly note	See derating curve
Mounting position	vertical or horizontal

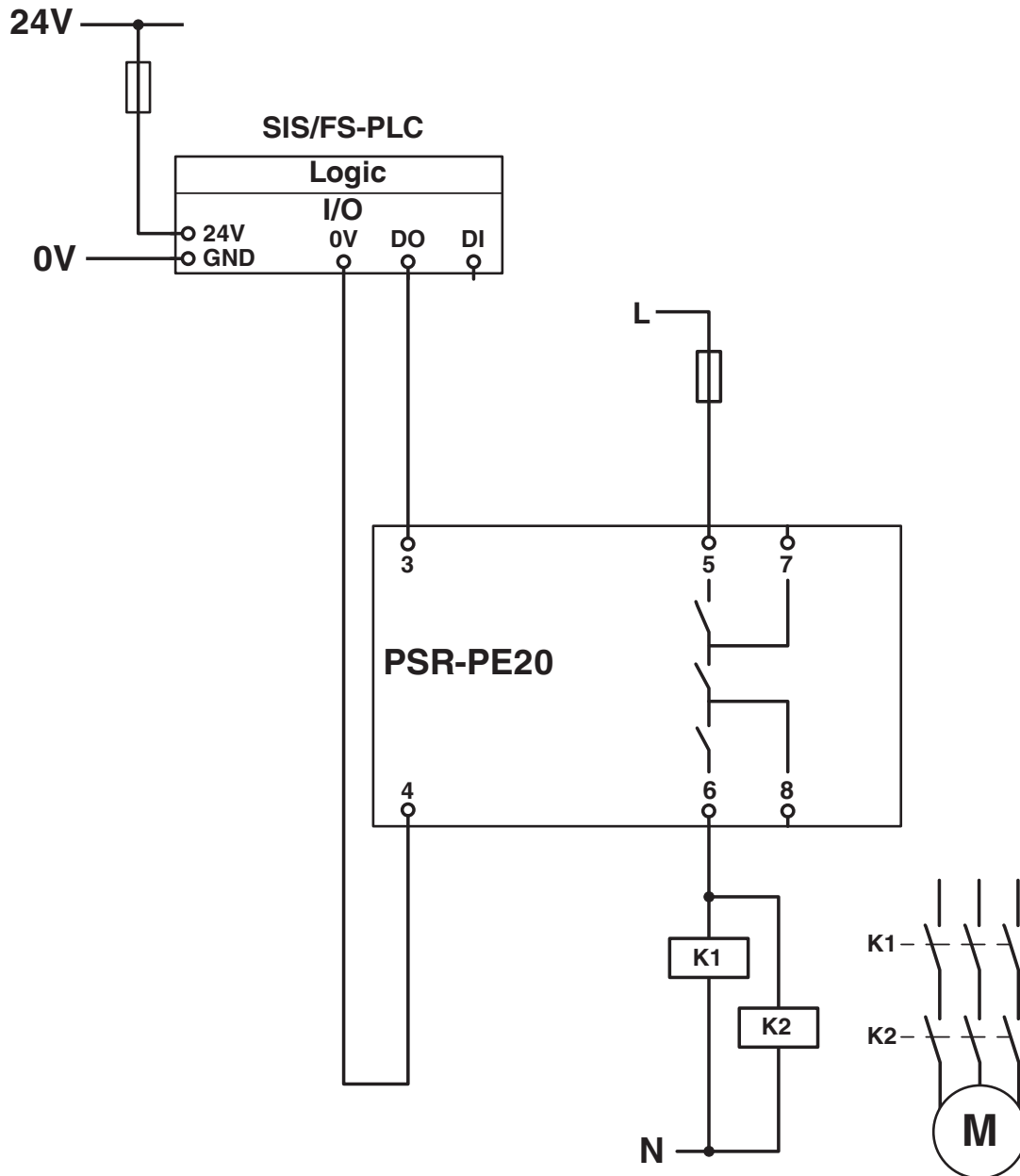
# PSR-PE20-1NO-24DC-SC - Coupling relay

1119573

<https://www.phoenixcontact.com/us/products/1119573>

## Drawings

Circuit diagram



Example application

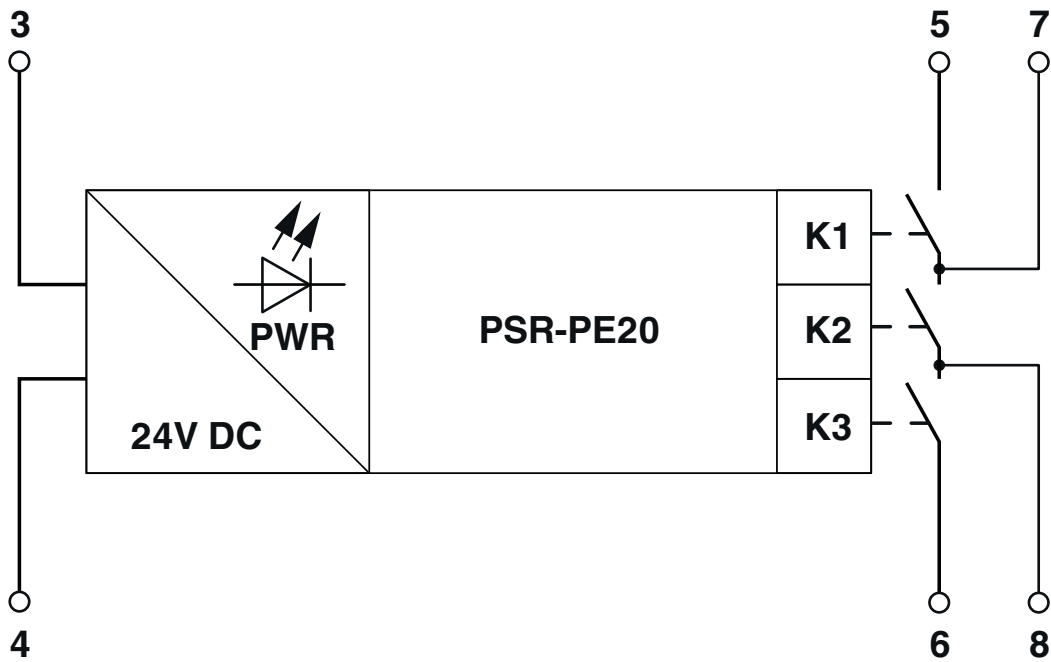
# PSR-PE20-1NO-24DC-SC - Coupling relay



1119573

<https://www.phoenixcontact.com/us/products/1119573>

Block diagram



Block diagram

# PSR-PE20-1NO-24DC-SC - Coupling relay



1119573

<https://www.phoenixcontact.com/us/products/1119573>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1119573>



### Functional Safety

Approval ID: 44-780-15124320



### cULus Listed

Approval ID: E140324

# PSR-PE20-1NO-24DC-SC - Coupling relay



1119573

<https://www.phoenixcontact.com/us/products/1119573>

## Classifications

### ECLASS

ECLASS-13.0	27371819
ECLASS-15.0	27371819

### ETIM

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

### UNSPSC

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

# PSR-PE20-1NO-24DC-SC - Coupling relay



1119573

<https://www.phoenixcontact.com/us/products/1119573>

## 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)
SCIP	22cfc7d0-5b14-45ac-b944-1240cb05b142

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](mailto:info@phoenixcon.com)