

Coupling relay - PSR-PC50-1NO-1DO-24DC-SP - 2904665

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Coupling relay for SIL 3 low-demand applications, couples digital output signals to the I/O, 1 enabling current path, module for F&G applications, test pulse filter, plug-in spring-cage terminal block, width: 17.5 mm

The figure shows a version with a screw connection

Why buy this product

- Up to SIL 3 according to IEC 61508
- Easy proof test according to IEC 61508 thanks to integrated signal contact
- Installation in zone 2 permitted
- Couples digital output signals from failsafe controllers to I/O devices (valves, etc.) for electrical isolation and power adaptation



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 919920
Weight per Piece (excluding packing)	212.4 g
Custom tariff number	85364900
Country of origin	Germany

Technical data

Note

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

Dimensions

Width	17.5 mm
Height	117.4 mm
Depth	114.5 mm

Ambient conditions

Coupling relay - PSR-PC50-1NO-1DO-24DC-SP - 2904665

Technical data

Ambient conditions

Ambient temperature (operation)	-20 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 65 °C
Max. permissible relative humidity (operation)	75 % (on average, 85% infrequently, non-condensing)
Max. permissible humidity (storage/transport)	75 % (on average, 85% infrequently, non-condensing)
Shock	15g
Vibration (operation)	2g
Maximum altitude	≤ 2000 m (Above sea level)

Input data

Nominal input voltage U_N	24 V DC -15 %; +10 % (A1/A2 and 24V/A2)
Input voltage range in reference to U_N	0.85 ... 1.1
Typical input current at U_N	65 mA (A1/A2)
	15 mA (24V/A2; depending on load M1 +100 mA)
Typical inrush current	≤ 200 mA (A1/A2)
Current consumption	typ. 20 mA (Input TP1)
	typ. 18 mA (Input TP2)
	typ. 35 mA (Input TP3)
Typical pick-up time	30 ms (when controlled via A1)
Typical release time	30 ms (when controlled via A1)
Recovery time	1 s
Status display	Green LED
Maximum switching frequency	0.5 Hz
Max. permissible overall conductor resistance	< 10 Ω (between LO/LO' and NI/NI'; taking into account the load in the event of short-circuit + cable resistance)

Output data

Contact type	1 enabling current path
Contact material	AgNi, gold-flashed
Minimum switching voltage	15 V AC/DC (without diagnostics)
	20 V AC/DC (with diagnostics)
Maximum switching voltage	250 V AC
	125 V DC
Nominal current	5 A
Limiting continuous current	5 A (N/O contact)
Inrush current, minimum	100 mA
Maximum inrush current	5 A
Switching capacity min.	1.5 W
Switching capacity	min. 1.5 W

Alarm outputs

Number of outputs	1 (digital)
Voltage	23 V DC

Coupling relay - PSR-PC50-1NO-1DO-24DC-SP - 2904665

Technical data

Alarm outputs

Current	max. 100 mA
Short-circuit protection	no

General

Relay type	Electromechanical relay with forcibly guided contacts in accordance with EN 50205
Mechanical service life	Approx. 5×10^7 cycles
Net weight	212.4 g
Mounting type	DIN rail mounting
Degree of protection	IP54
	IP20
Min. degree of protection of inst. location	IP54
Mounting position	vertical or horizontal
Control	single-channel
Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	DIN EN 50178
Rated surge voltage/insulation	6 kV/safe isolation (through protective impedance)
Rated insulation voltage	250 V AC
Pollution degree	2
Overvoltage category	III

Connection data

Connection method	Spring-cage connection
pluggable	Yes
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	1.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16
Stripping length	8 mm

Classifications

eCl@ss

eCl@ss 5.1	27371901
eCl@ss 6.0	27371819
eCl@ss 8.0	27371819

ETIM

ETIM 4.0	EC001449
ETIM 5.0	EC001449

Coupling relay - PSR-PC50-1NO-1DO-24DC-SP - 2904665

Approvals

Approvals

Approvals

UL Listed / cUL Listed / Functional Safety / GL / EAC / cULus Listed

Ex Approvals

UL Listed / cUL Listed / IECEx / ATEX / cULus Listed

Approvals submitted

Approval details

UL Listed

cUL Listed

Functional Safety

GL

EAC

cULus Listed

Drawings

Block diagram



