

PSR-SCP- 24DC/FSP/2X1/1X2

Order No.: 2986960



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Safe coupling relay for SIL3 high and low demand applications, connects digital output signals to the I/O, 2 enabling current paths, 2 signal contacts, module for safe state off applications, integrated test pulse filter, plug-in screw connection, width: 17.5 mm



Commercial data

EAN	 4 046356 520911
sales group	G501
Pack	1 Pcs.
Customs tariff	85364190
Gross weight in pieces	0.19078 KG
Net weight per piece	0.1899 KG
Catalog page information	Page 92 (C-8-2013)

Product notes

WEEE/RoHS-compliant since:
08/24/2009



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Technical data

Dimensions

Width	17.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Max. permissible humidity (storage/transport)	≤ 75 % (Condensation and icing are not permitted based on the average annual temperature)
	≤ 85 % (On an individual basis, condensation and icing are not permitted)

Input data

Nominal input voltage U_N	24 V DC
Input voltage range in reference to U_N	0.85 ... 1.1
Typical input current at U_N	55 mA
Typical inrush current	max. 100 mA
Typical response time	50 ms
Typical release time	50 ms
Recovery time	1 s

Output data

Contact type	2 undelayed enabling current paths
	1 undelayed confirmation current path
Contact material	AgCuNi, + 0.2 µm Au
Minimum switching voltage	15 V AC/DC
Maximum switching voltage	250 V AC/DC
Limiting continuous current	5 A (N/O contact)
	100 mA (N/C contact)
Inrush current, minimum	5 mA
Maximum inrush current	5 A
Sq. Total current	$50 \text{ A}^2 (I_{TH}^2 = I_1^2 + I_2^2 + \dots + I_N^2)$
Interrupting rating (ohmic load) max.	120 W (24 V DC, $\tau = 0 \text{ ms}$, N/C contact: 2.4 W)
	192 W (48 V DC, $\tau = 0 \text{ ms}$, N/C contact: 4.8 W)
	162 W (60 V DC, $\tau = 0 \text{ ms}$, N/C contact: 6 W)
	66 W (110 V DC, $\tau = 0 \text{ ms}$, N/C contact: 11 W)
	60 W (220 V DC, $\tau = 0 \text{ ms}$, N/C contact: 22 W)
	1250 VA (250 V AC, $\tau = 0 \text{ ms}$, N/C contact: 25 VA)

Maximum interrupting rating (inductive load)	72 W (24 V DC, $\tau = 40$ ms, N/C contact: 2.4 W)
	43 W (48 V DC, $\tau = 40$ ms, N/C contact: 4.8 W)
	41 W (60 V DC, $\tau = 40$ ms, N/C contact: 6 W)
	35 W (110 V DC, $\tau = 40$ ms, N/C contact: 11 W)
	48 W (220 V DC, $\tau = 40$ ms, N/C contact: 22 W)
Switching capacity min.	75 mW
Output fuse	10 A gL/gG (N/O contact)
	6 A gL/gG (N/C contact)

General

Relay type	Electromechanically forcibly guided, dust-proof relay.
Mechanical service life	Approx. 10^7 cycles
Mounting type	DIN rail mounting
Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Mounting position	any
Category according to EN 13849-1	4
Stop category	0
Designation	Air and creepage distances between the power circuits
Standards/regulations	DIN EN 50178/VDE 0160
Rated surge voltage / insulation	6 kV / Safe isolation, increased insulation
Rated insulation voltage	250 V
Pollution degree	2
Surge voltage category	III

Connection data

Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Stripping length	7 mm
Screw thread	M3
Connection method	Screw connection

Certificates / Approvals



Certification

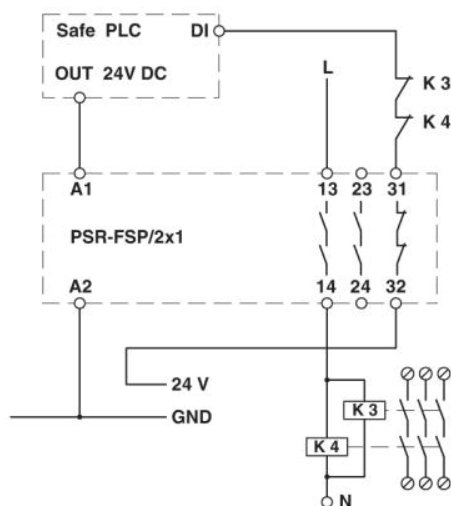
cULus Listed, Functional Safety

Certifications applied for:

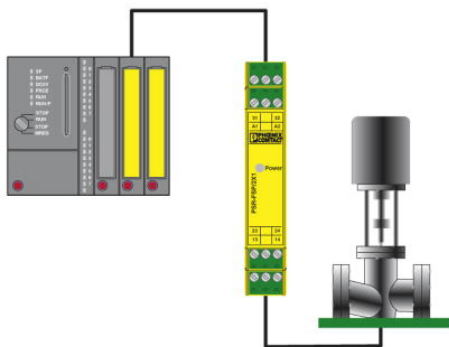
Certification Ex:

Drawings

Connection diagram

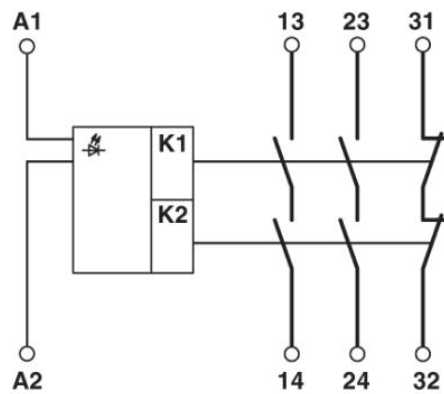


Application drawing



Example of electrical isolation of a safety PLC output from the field.

Circuit diagram



Address

PHOENIX CONTACT Deutschland GmbH
Flachsmarktstr. 8
32825 Blomberg, Germany
Phone +49 5235 3 12000
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>



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