

PSR-SPP- 24UC/ESM4/2X1/1X2


Order No.: 2963705

The figure shows a version with a screw connection

<http://catalog.phoenixcontact.net/phoenix/treeViewClick.do?UID=2963705>

Safety relay to emergency stop and safety door monitoring up to SIL 3 or Cat. 4, PL e according to EN ISO 13849, one- or two-channel operation, manually supervised activation, 2 enabling current paths, nominal input voltage 24 V AC/DC



Commercial data	
EAN	 4 017918 904753
Pack	1 Pcs.
Customs tariff	85364900
Product key	106502
Catalog page information	Page 20 (IF-2009)

Product notesWEEE/RoHS-compliant since:
12/05/2006

<http://www.download.phoenixcontact.com>
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

Technical data	
Input data	
Nominal input voltage U_N	24 V AC/DC
Input voltage range in reference to U_N	0.85 ... 1.1

Typical input current at U_N	140 mA AC
	65 mA DC
Voltage at input/start and feedback circuit	Approx. 24 V DC
Typical response time	20 ms (Monitored/manual start)
Typical release time	45 ms (single-channel)
	10 ms (two-channel)
Concurrence input 1/2	Infinite
Recovery time	1 s
Max. permissible overall conductor resistance	Approx. 50 Ω (Input and start circuits at U_N)

Output data

Contact type	2 enabling current paths
	1 signaling current path
Contact material	AgSnO ₂ , + 0.2 μ m Au
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	15 V AC/DC
Limiting continuous current	6 A (N/O contact)
Maximum inrush current	6 A
Inrush current, minimum	25 mA
Sq. Total current	72 A ² ($I_{TH}^2 = I_1^2 + I_2^2$)
Interrupting rating (ohmic load) max.	144 W (24 V DC, $\tau = 0$ ms)
	288 W (48 V DC, $\tau = 0$ ms)
	77 W (110 V DC, $\tau = 0$ ms)
	88 W (220 V DC, $\tau = 0$ ms)
	1500 VA (250 V AC, $\tau = 0$ ms)
Maximum interrupting rating (inductive load)	48 W (24 V DC, $\tau = 40$ ms)
	40 W (48 V DC, $\tau = 40$ ms)
	35 W (110 V DC, $\tau = 40$ ms)
	35 W (220 V DC, $\tau = 40$ ms)
Switching capacity min.	0.4 W
Output fuse	10 A gL/gG NEOZED (N/O contact)
	6 A gL/gG NEOZED (N/C contact)

General data

Width	22.5 mm
Height	112 mm

Depth	114.5 mm
Ambient temperature (operation)	-20 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relay type	Electromechanically forcibly guided, dust-proof relay.
Mechanical service life	Approx. 10 ⁷ cycles
Mounting position	Any
Category according to EN 13849-1	4
Stop category	0
Name	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

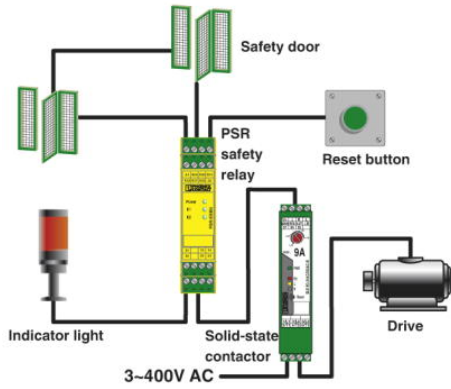
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	1.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	16
Stripping length	8 mm
Connection method	Spring-cage conn.

Certificates / Approvals

Certification CUL Listed, GOST, TUEV-RH, UL Listed

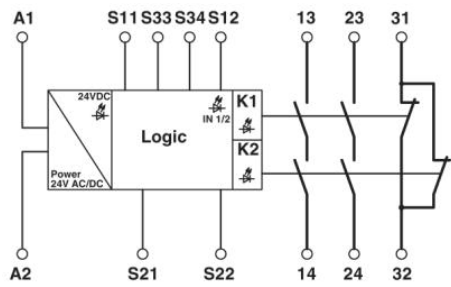
Drawings

Application drawing



Example of a safety door application with a PSR safety relay PSR-ESM4.

Circuit diagram



1 = logics

Connection data incl. use groups





Address

Nanjing Phoenix Contact Co. Ltd.
No. 36 Phoenix Road - Jiangning Development Zone /
P.O. Box 236 Jiangning Nanjing
CN-211100 Nanjing, China
Phone +86/25-5212-1888
Fax +86/25-5212-1999 or 1555
<http://www.phoenixcontact.com.cn>



© 2012 Phoenix Contact
Technical modifications reserved;