

2963718

<https://www.phoenixcontact.com/in/products/2963718>

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.



Safety relay for emergency stop and safety door monitoring up to SIL 3 or Cat. 4, PL e in accordance with EN ISO 13849, 2-channel operation, 2 enabling current paths, nominal input voltage: 24 V DC, plug-in screw terminal block

Your advantages

- Up to Cat. 4/PL e in accordance with EN ISO 13849-1, SIL 3 in accordance with EN IEC 62061, SIL 3 in accordance with IEC 61508
- 2 channel control
- 2 enabling current paths, 1 signaling current path

Commercial data

Item number	2963718
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DNA
Product key	DNA112
GTIN	4017918599379
Weight per piece (including packing)	192.61 g
Weight per piece (excluding packing)	192.1 g
Customs tariff number	85371098
Country of origin	DE

Technical data

Notes

Note on application

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

Product properties

Product type	Safety relays
Product family	PSRclassic
Application	Emergency stop
	Safety door
Control	2-channel
Mechanical service life	approx. 10^7 cycles
Relay type	Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3

Insulation characteristics

Overvoltage category	III
Degree of pollution	2

Electrical properties

Maximum power dissipation for nominal condition	16.44 W ($U_S = 26.4$ V, $I_L^2 = 72$ A ² , $P_{Total\ max} = 2.04$ W + 14.4 W)
Nominal operating mode	100% operating factor
Rated insulation voltage	250 V
Rated surge voltage/insulation	See data sheet, section "Insulation coordination".

Input data

General

Rated control circuit supply voltage U_S	24 V DC -15 % / +10 %
Power consumption at U_S	typ. 1.68 W (DC)
Rated control supply current I_S	typ. 70 mA
Input voltage range in reference to U_N	0.85 ... 1.1
Typical input current at U_N	70 mA DC
Inrush current	< 3.5 A ($\Delta t = 3$ ms at U_S)
	< 100 mA ($\Delta t = 500$ ms, with U_S/I_x at S12)
	> -100 mA ($\Delta t = 300$ ms, with U_S/I_x at S22)
	< 6 mA (with U_S/I_x to S34)
Current consumption	typ. 38 mA (S12)
	typ. -38 mA (S22)
	typ. 1 mA (with U_S/I_x to S34)
Voltage at input/start and feedback circuit	approx. 24 V DC
Filter time	5 ms (at A1 in the event of voltage dips at U_S)
	No test pulses permitted

PSR-SCP- 24UC/ESM4/2X1/1X2 - Safety relays



2963718

<https://www.phoenixcontact.com/in/products/2963718>

Typical response time	100 ms (Monitored/manual start)
Typical release time	20 ms (on demand via the sensor circuit)
	45 ms (on demand via A1)
Concurrence	∞
Recovery time	1 s (following demand of the safety function)
	< 1 s (Boot time)
Protective circuit	Surge protection; Suppressor diode
Max. permissible overall conductor resistance	approx. 50 Ω (Input and start circuits at U_S)
Operating voltage display	Green LED
Status display	LED (green)

Output data

Contact switching 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	10 V AC/DC
Limiting continuous current	6 A (N/O contact)
Maximum inrush current	6 A
Inrush current, minimum	10 mA
Sq. Total current	72 A ² (Enabling current paths)
	36 A ² (Signaling current path 31/32)
Interrupting rating (ohmic load) max.	see load limit curve
Switching capacity min.	100 mW
Output fuse	10 A gL/gG (Enabling current paths)
	4 A gL/gG (Low-demand enabling current paths)
	6 A gL/gG (Signaling current path)

Connection data

Connection technology

pluggable	yes
-----------	-----

Conductor connection

Connection method	Screw connection
Conductor cross-section rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section AWG	24 ... 12
Stripping length	7 mm
Screw thread	M3

Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

PSR-SCP- 24UC/ESM4/2X1/1X2 - Safety relays



2963718

<https://www.phoenixcontact.com/in/products/2963718>

Material specifications

Color (Housing)	yellow (RAL 1018)
Housing material	PA

Characteristics

Safety data

Stop category	0
---------------	---

Safety data: EN ISO 13849

Category	4
Performance level (PL)	e (5 A DC13; 5 A AC15; 8760 switching cycles/year)

Safety data: IEC 61508 - High demand

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

Safety data: IEC 61508 - Low demand

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

Safety data: EN IEC 62061

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

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 (observe derating)
Ambient temperature (storage/transport)	-40 °C ... 70 °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

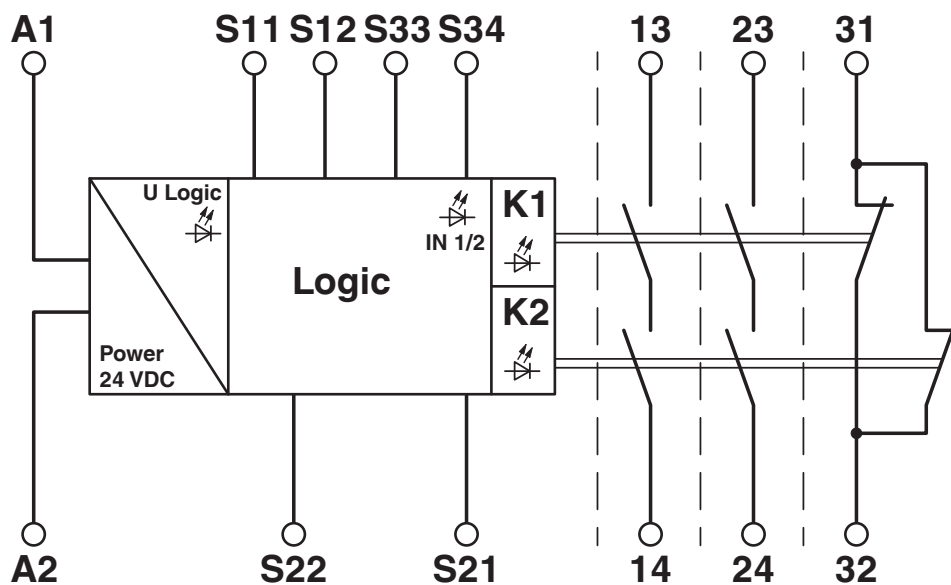
PSR-SCP- 24UC/ESM4/2X1/1X2 - Safety relays

2963718

<https://www.phoenixcontact.com/in/products/2963718>

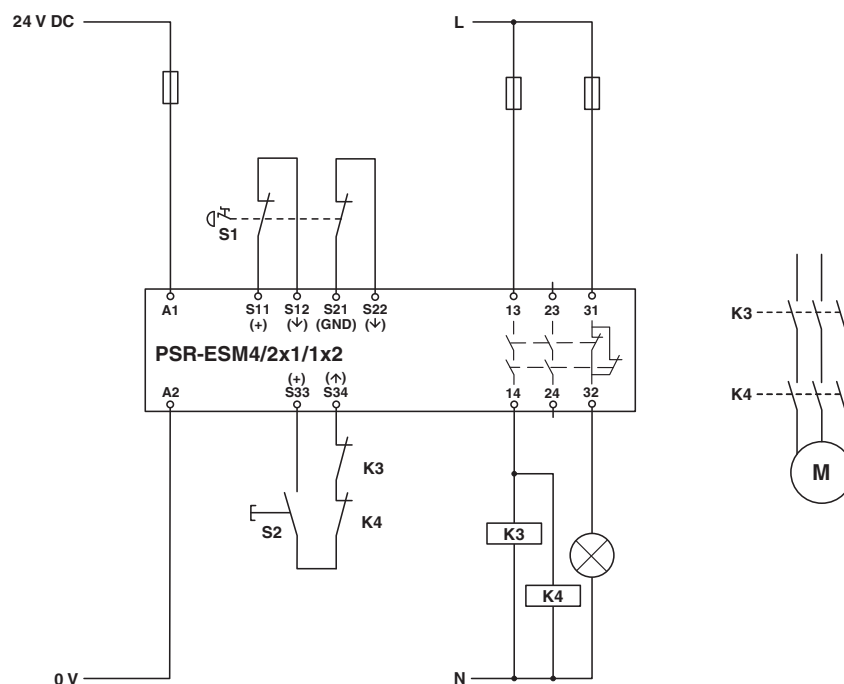
Drawings

Circuit diagram



Block diagram

Circuit diagram



2-channel emergency stop monitoring

PSR-SCP- 24UC/ESM4/2X1/1X2 - Safety relays



2963718

<https://www.phoenixcontact.com/in/products/2963718>

Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/2963718>



cULus Listed

Approval ID: E140324



Functional Safety

Approval ID: 01/205/0652.05/22

PSR-SCP- 24UC/ESM4/2X1/1X2 - Safety relays



2963718

<https://www.phoenixcontact.com/in/products/2963718>

Classifications

ECLASS

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

ETIM

ETIM 9.0	EC001449
----------	----------

UNSPSC

UNSPSC 21.0	39122205
-------------	----------

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	8b9d065e-3f1b-476a-9eb4-02d9fddf6b7f

PSR-SCP- 24UC/ESM4/2X1/1X2 - Safety relays



2963718

<https://www.phoenixcontact.com/in/products/2963718>

Accessories

CP-MSTB - Coding profile

1734634

<https://www.phoenixcontact.com/in/products/1734634>

Coding profile, is inserted into the slot on the plug or inverted header, red insulating material



CR-MSTB - Coding section

1734401

<https://www.phoenixcontact.com/in/products/1734401>

Coding section, inserted into the recess in the header or the inverted plug, red insulating material



PSR-SCP- 24UC/ESM4/2X1/1X2 - Safety relays



2963718

<https://www.phoenixcontact.com/in/products/2963718>

CRIMPFOX 6 - Crimping pliers

1212034

<https://www.phoenixcontact.com/in/products/1212034>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

PSR-ESS-M0-H110 - Actuator

1221757

<https://www.phoenixcontact.com/in/products/1221757>



Actuator with anti-lock collar for modular emergency stop switches, for combination with module holder and contact module as a functional unit, panel installation, bayonet lock

PSR-SCP- 24UC/ESM4/2X1/1X2 - Safety relays



2963718

<https://www.phoenixcontact.com/in/products/2963718>

PSR-ESS-ACC-CB1-C3 - Module holder

1221747

<https://www.phoenixcontact.com/in/products/1221747>



Module holder for modular emergency stop switches, connects the contact block and actuator with bayonet lock, suitable for 3 elements

PSR-ESS-ACC-CB1-NC-SC - Contact module

1221752

<https://www.phoenixcontact.com/in/products/1221752>



Contact module for modular emergency stop switches with force-guided N/C contact for safety-related shutdown, in conjunction with appropriate evaluation unit suitable for use up to PL e (EN ISO 13849-1), SIL 3 (EN IEC 62061)

Phoenix Contact 2025 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT (I) Pvt. Ltd.

A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420

info@phoenixcontact.co.in