

# Safety relays - PSR-SCP-120UC/ESAM4/3X1/1X2/B - 2901422

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://download.phoenixcontact.com>)



Safety relay for emergency stop and safety door monitoring up to SIL 3 or Cat. 4, PL e according to EN ISO 13849, single or two-channel operation, 3 enabling current paths, nominal input voltage of 120 V AC/DC, plug-in screw terminal blocks

The figure shows 120 UC version

## Product Features

- Up to Cat. 4/PL e according to ISO 13849-1, SIL CL 3 according to IEC 62061, SIL 3 according to IEC 61508
- Manually monitored and automatic activation in a single device
- 3 enabling current paths, 1 signaling current path
- Single and two-channel control
- Basic insulation



## Key commercial data

package_quantity	1
GTIN	4046356592024

## Technical data

Note:

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

## Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

## Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	75 %
Max. permissible humidity (storage/transport)	75 %

## Input data

Input voltage range	110 V AC/DC ... 120 V AC/DC
Input voltage range in reference to U <sub>N</sub>	0.85 ... 1.1
Typical input current at U <sub>N</sub>	38 mA

# Safety relays - PSR-SCP-120UC/ESAM4/3X1/1X2/B - 2901422

## Technical data

### Input data

Voltage at input/start and feedback circuit	~ 24 V DC
Typical response time	40 ms (man. start)
Typical pick-up time	330 ms (when controlled via A1)
Typical release time	60 ms (when controlled via A1)
Typical release time	20 ms (when controlled via S11/S12 and S21/S22)
Concurrence input 1/2	Infinite
Recovery time	1 s
Maximum switching frequency	0.5 Hz
Max. permissible overall conductor resistance	50 Ω

### Output data

Contact type	3 enabling current paths
Contact type	1 signaling current path
Contact material	AgSnO <sub>2</sub> , + 0.2 μm Au
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	10 V AC/DC
Limiting continuous current	6 A (N/O contact)
Limiting continuous current	5 A (N/C contact)
Maximum inrush current	6 A
Inrush current, minimum	10 mA
Sq. Total current	$72 A^2 (I_{TH}^2 = I_1^2 + I_2^2 + I_3^2)$
Interrupting rating (ohmic load) max.	144 W (24 V DC, τ = 0 ms)
Interrupting rating (ohmic load) max.	230 W (48 V DC, τ = 0 ms)
Interrupting rating (ohmic load) max.	68 W (110 V DC, τ = 0 ms)
Interrupting rating (ohmic load) max.	88 W (220 V DC, τ = 0 ms)
Interrupting rating (ohmic load) max.	2000 VA (250 V AC, τ = 0 ms)
Maximum interrupting rating (inductive load)	48 W (24 V DC, τ = 40 ms)
Maximum interrupting rating (inductive load)	40 W (48 V DC, τ = 40 ms)
Maximum interrupting rating (inductive load)	35 W (110 V DC, τ = 40 ms)
Maximum interrupting rating (inductive load)	33 W (220 V DC, τ = 40 ms)
Switching capacity min.	100 mW
Output fuse	10 A gL/gG NEOZED (N/O contact)
Output fuse	6 A gL/gG NEOZED (N/C contact)

### General

Relay type	Electromechanically forcibly guided, dust-proof relay.
Mechanical service life	Approx. 10 <sup>7</sup> cycles
Mounting position	Any
Category according to EN 13849-1	4
Stop category	0 (undelayed contacts)
Name	Air and creepage distances between the power circuits
Standards/regulations	DIN EN 50178/VDE 0160

# Safety relays - PSR-SCP-120UC/ESAM4/3X1/1X2/B - 2901422

## Technical data

### General

<b>Rated surge voltage / insulation</b>	4 kV / basic insulation (safe isolation, reinforced insulation, and 6 kV between A1-A2/logic/enabling and signaling current paths)
<b>Rated insulation voltage</b>	250 V AC
<b>Pollution degree</b>	2
<b>Surge voltage category</b>	III

### Connection data

<b>Conductor cross section solid min.</b>	0.2 mm <sup>2</sup>
<b>Conductor cross section solid max.</b>	2.5 mm <sup>2</sup>
<b>Conductor cross section stranded min.</b>	0.2 mm <sup>2</sup>
<b>Conductor cross section stranded max.</b>	2.5 mm <sup>2</sup>
<b>Conductor cross section AWG/kcmil min.</b>	24
<b>Conductor cross section AWG/kcmil max</b>	12
<b>Connection method</b>	Screw connection

## classifications

### eCl@ss

<b>eCl@ss 4.0</b>	27371102
<b>eCl@ss 4.1</b>	27371102
<b>eCl@ss 5.0</b>	27371901
<b>eCl@ss 5.1</b>	27371901
<b>eCl@ss 6.0</b>	27371819
<b>eCl@ss 7.0</b>	27371819
<b>eCl@ss 8.0</b>	27371819

### ETIM

<b>ETIM 3.0</b>	EC001449
<b>ETIM 4.0</b>	EC001449
<b>ETIM 5.0</b>	EC001449

### UNSPSC

<b>UNSPSC 6.01</b>	30211901
<b>UNSPSC 7.0901</b>	39121501
<b>UNSPSC 11</b>	39121501
<b>UNSPSC 12.01</b>	39121501
<b>UNSPSC 13.2</b>	39121501

## approvals

---

GOST / UL Listed / cUL Listed / Functional Safety / cULus Listed /

---

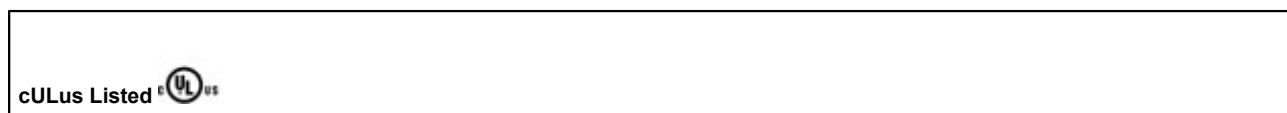
### Approval details

# Safety relays - PSR-SCP-120UC/ESAM4/3X1/1X2/B - 2901422

approvals

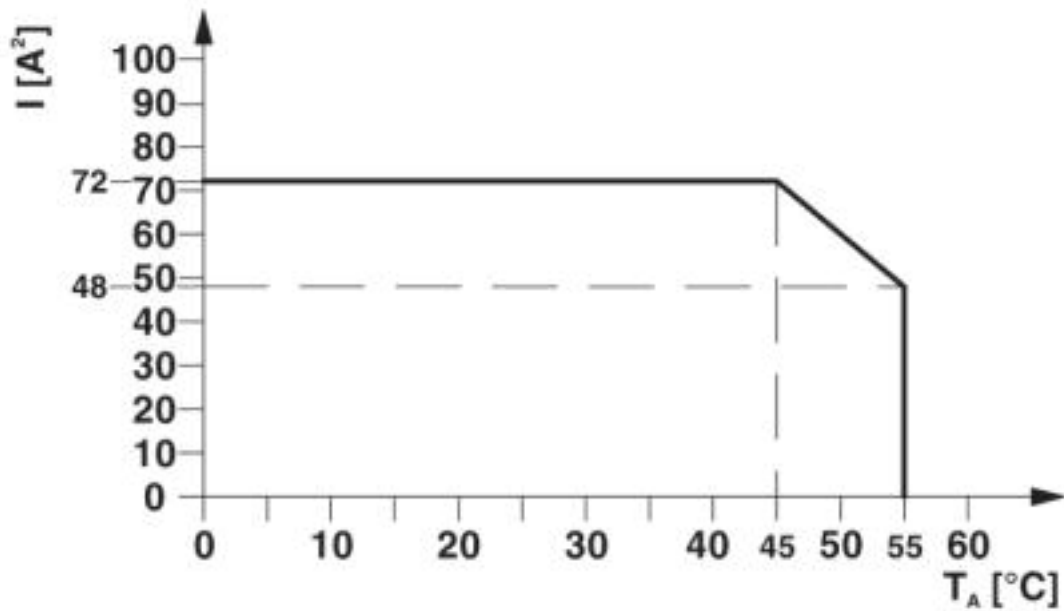


Functional Safety



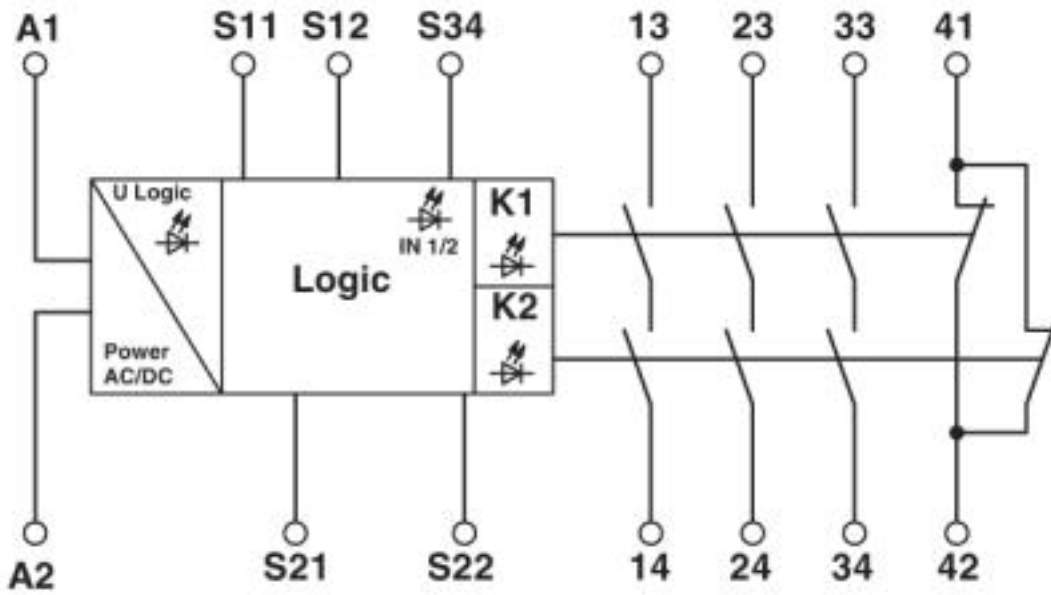
Drawings

Diagram



## Safety relays - PSR-SCP-120UC/ESAM4/3X1/1X2/B - 2901422

Circuit diagram



© Phoenix Contact 2013 - all rights reserved  
<http://www.phoenixcontact.com>