

# PSR-SPP- 24UC/URM4/5X1/2X2/B - Extension module



2981046  
<https://www.phoenixcontact.com/us/products/2981046>

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Single or two-channel contact extension, 5 N/O contacts, 1 N/C contact, 1 confirmation current path, width: 22.5 mm, pluggable Push-in terminal block

## Your advantages

- 1- and 2-channel control
- 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

## Commercial data

Item number	2981046
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN01
Product key	DNA152
Catalog page	Page 232 (C-6-2019)
GTIN	4017918915520
Weight per piece (including packing)	207.4 g
Weight per piece (excluding packing)	20.4 g
Customs tariff number	85371098
Country of origin	DE

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## Technical data

### Product properties

Product type	Safety relays
Product family	PSRclassic
Application	Extension module
Mechanical service life	10x 10 <sup>6</sup> cycles
Relay type	Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3

### Electrical properties

Maximum power dissipation for nominal condition	2.21 W
Nominal operating mode	100% operating factor

#### Air clearances and creepage distances between the power circuits

Rated insulation voltage	250 V AC
Rated surge voltage/insulation	Basic insulation 4 kV: between all current paths and housing Safe isolation, reinforced insulation 6 kV: between A1/A2, 11/12, 23/24, 71/72 and 33/34, 43/44, 53/54, 63/64

### Input data

#### General

Rated control circuit supply voltage $U_S$	24 V AC/DC -15 % / +10 %
Power consumption at $U_S$	typ. 1.94 W (AC)
	typ. 1.7 W (DC)
Rated control supply current $I_S$	typ. 81 mA AC
	typ. 71 mA DC
Inrush current	175 mA ( $\Delta t = 5$ ms at $U_S$ )
Filter time	2 ms (at A1 in the event of voltage dips at $U_S$ )
Typ. starting time with $U_S$	< 20 ms (when controlled via A1)
Typical release time	< 20 ms (when controlled via A1)
Recovery time	< 1 s
Maximum switching frequency	1 Hz
Protective circuit	Surge protection; Varistor

### Output data

Contact switching type	5 enabling current paths
	1 confirmation current path
	1 signaling current path
Contact material	AgSnO <sub>2</sub>
Maximum switching voltage	250 V AC/DC (Observe the load curve)
Minimum switching voltage	5 V AC/DC
Limiting continuous current	6 A (N/O contact, pay attention to the derating)

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	6 A (N/C contact)
Maximum inrush current	20 A ( $\Delta t \leq 100$ ms)
Inrush current, minimum	10 mA
Sq. Total current	72 A <sup>2</sup> (observe derating)
Interrupting rating (ohmic load) max.	144 W (24 V DC, $\tau = 0$ ms)
	288 W (48 V DC, $\tau = 0$ ms)
	110 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)	42 W (24 V DC, $\tau = 40$ ms)
	42 W (48 V DC, $\tau = 40$ ms)
	42 W (110 V DC, $\tau = 40$ ms)
	42 W (220 V DC, $\tau = 40$ ms)
Switching capacity min.	50 mW
Switching capacity (360/h cycles)	4 A (24 V DC)
	4 A (230 V AC)
Switching capacity (3600/h cycles)	2.5 A (24 V (DC13))
	3 A (230 V (AC15))
Output fuse	10 A gL/gG (N/O contact)
	6 A gL/gG (N/C contact)

## Connection data

### Connection technology

pluggable	yes
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### Conductor connection

Connection method	Push-in connection
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (only together with CRIMPFOX 6)
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (only together with CRIMPFOX 6)
Conductor cross-section AWG	24 ... 16
Stripping length	8 mm

## Signaling

Operating voltage display	1 x green LED
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## Dimensions

Width	22.5 mm
Height	112 mm
Depth	114.5 mm

## Material specifications

Color (Housing)	yellow (RAL 1018)
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Housing material	Polyamide
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## Characteristics

### Safety data

Stop category	0
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### Safety data: EN ISO 13849

Category	4 (In conjunction with suitable evaluating device)
Performance level (PL)	e (In conjunction with suitable evaluating device)

### Safety data: IEC 61508 - High demand

Safety Integrity Level (SIL)	3 (In conjunction with suitable evaluating device)
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### Safety data: IEC 61508 - Low demand

Safety Integrity Level (SIL)	3 (In conjunction with suitable evaluating device)
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### Safety data: EN IEC 62061

Safety Integrity Level (SIL)	3 (In conjunction with suitable evaluating device)
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## 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	max. 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
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## Standards and regulations

### Air clearances and creepage distances between the power circuits

Standards/regulations	IEC 60664-1
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## Mounting

Mounting type	DIN rail mounting
Assembly instructions	See derating curve
Mounting position	vertical or horizontal

# PSR-SPP- 24UC/URM4/5X1/2X2/B - Extension module

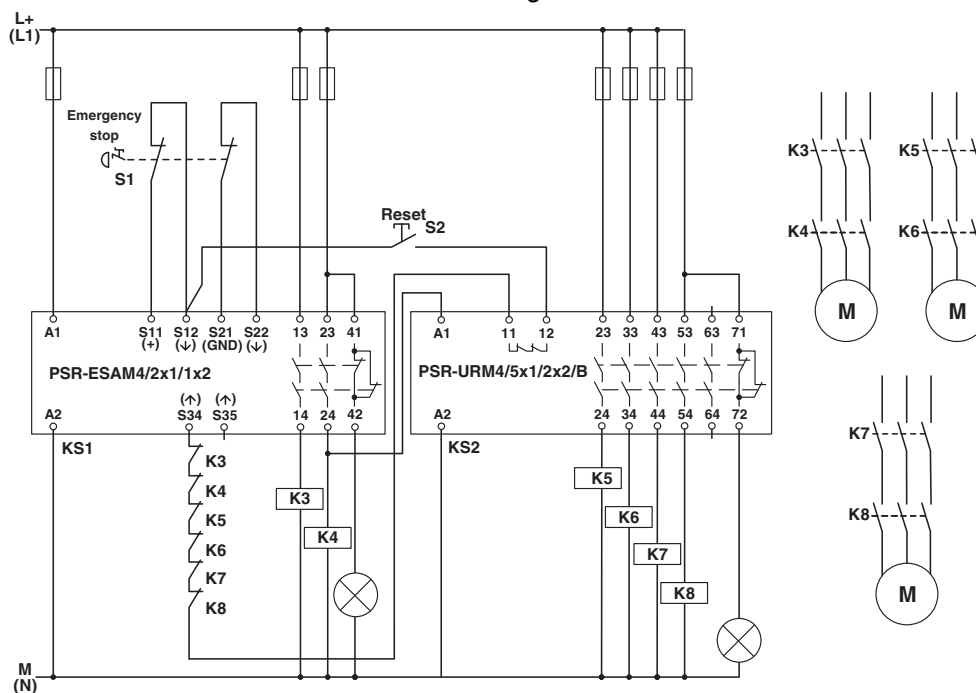


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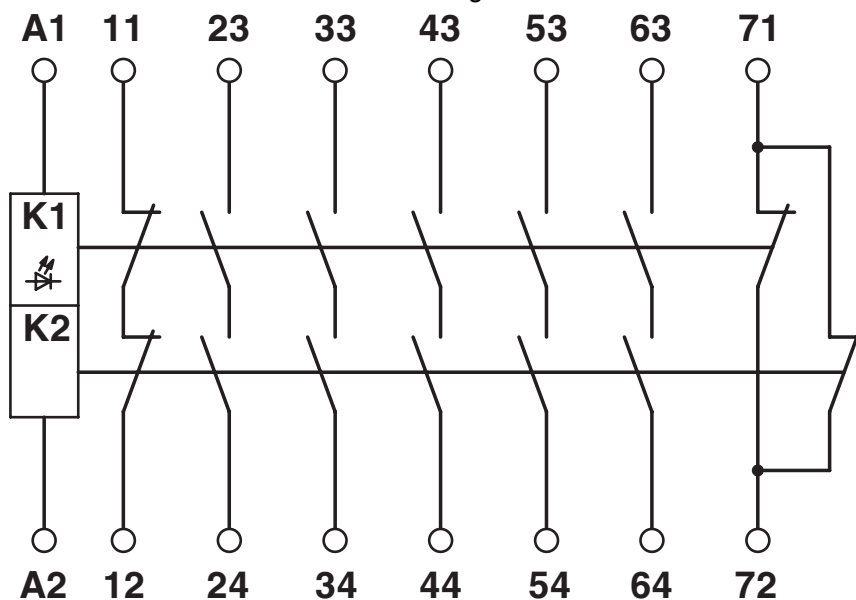
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## Drawings

Circuit diagram



Circuit diagram




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## Approvals


To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2981046>




**EAC**  
Approval ID: TR TS\_D\_01838-19




**UL Listed**  
Approval ID: FILE E 140324



**cUL Listed**  
Approval ID: FILE E 140324



**Functional Safety**  
Approval ID: 968/FSP 1265.02/21



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**cULus Listed**

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## Classifications

### ECLASS

ECLASS-11.0	27371819
ECLASS-13.0	27371819
ECLASS-12.0	27371819

### ETIM

ETIM 9.0	EC001449
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### UNSPSC

UNSPSC 21.0	39122200
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## 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	ef99455f-dd90-451d-b367-bc97d6785ff7

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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)