

# PSR-MC82-5NO-1NC-1DO-24DC-SC - Extension module



2702382

<https://www.phoenixcontact.com/us/products/2702382>

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.



Contact extension up to SIL 3, Cat. 4, PL e in conjunction with suitable evaluation device, 5 enabling current paths,  $U_S = 24 \text{ V DC}$ , plug-in screw terminal block

## Your advantages

- Up to Cat. 4/PL e in accordance with ISO 13849-1, SIL 3 in accordance with EN IEC 62061 in conjunction with suitable evaluation device
- Low housing width of just 17.5 mm
- 1- and 2-channel control
- 5 enabling current paths, 1 confirmation current path, 1 digital signal output
- Automatic activation

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2702382       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | DN01          |
| Product key                          | DNA181        |
| GTIN                                 | 4055626145471 |
| Weight per piece (including packing) | 220.77 g      |
| Weight per piece (excluding packing) | 185.49 g      |
| Customs tariff number                | 85371098      |
| Country of origin                    | DE            |

# PSR-MC82-5NO-1NC-1DO-24DC-SC - Extension module



2702382

<https://www.phoenixcontact.com/us/products/2702382>

## Technical data

### Notes

#### Note on application

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

### Product properties

|                |  |
|----------------|--|
| Product type   | Safety relays  |
| Product family | PSRmini  |
| Application    | Extension module   |
| Control        | 1 and 2 channel  |
| Relay type     | Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3 |

#### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution  | 2   |

#### Times

|                               |   |
|-------------------------------|---|
| Typical response time         | < 50 ms (Monitored/manual and auto-start) |
| Typ. starting time with $U_s$ | < 50 ms (when controlled via A1/A2)       |
| Typical release time          | < 25 ms (when controlled via A1/A2)       |
| Recovery time                 | < 100 ms                                  |

### Electrical properties

|   |  |
|---|--|
| Maximum power dissipation for nominal condition | 15.2 W (at $U_s = 30$ V, $I_L^2 = 64$ A <sup>2</sup> ) |
| Nominal operating mode                          | 100% operating factor                                  |
| Rated insulation voltage                        | 250 V AC   |
| Rated surge voltage/insulation                  |  |

#### Supply

|  |   |
|--|---|
| Designation                                | A1/A2   |
| Rated control circuit supply voltage $U_s$ | 19.2 V DC ... 30 V DC   |
| Rated control circuit supply voltage $U_s$ | 24 V DC -20 % / +25 %   |
| Rated control supply current $I_s$         | typ. 80 mA  |
| Power consumption at $U_s$                 | typ. 1.92 W   |
| Inrush current                             | typ. 125 mA ( $\Delta t = 7$ ms at $U_s$ )                            |
| Filter time                                | 4 ms (at A1 in the event of voltage dips at $U_s$ )                   |
|  | max. 1 ms (at A1/A2, test pulse width, blanking pulses/dark test)     |
|  | 5 ms (at A1/A2, test pulse rate, blanking pulses/dark test)           |
|  | Where test pulse width < 1 ms: test pulse rate = 5 x test pulse width |
|  | max. 1 ms (at A1/A2, test pulse width, switch-on pulses/light test)   |
|  | 10 ms (at A1/A2; test pulse rate; switch-on pulses/light test)        |
|  | Deactivate the switch-on pulses for safety applications.              |

# PSR-MC82-5NO-1NC-1DO-24DC-SC - Extension module



2702382

<https://www.phoenixcontact.com/us/products/2702382>

|                    |  |
|--------------------|--|
| Protective circuit | Surge protection; Suppressor diode           |
|                    | Reverse polarity protection; Universal diode |

## Output data

Relay: Enabling current paths (23/24 ... 63/64)

|                             |   |
|-----------------------------|---|
| Output description          | safety-related N/O contacts   |
| Number of outputs           | 5 (undelayed)   |
| Contact switching type      | 5 enabling current paths  |
| Contact material            | AgSnO <sub>2</sub>  |
| Switching voltage           | min. 5 V AC/DC  |
|                             | max. 24 V DC (Enabling current path 23/24)                              |
|                             | max. 250 V AC/DC (all other enabling current paths, observe load curve) |
| Switching capacity          | min. 50 mW (5 V / 10 mA)  |
| Inrush current              | min. 10 mA  |
|                             | max. 20 A (≤ 100 ms)  |
| Limiting continuous current | 6 A (observe derating)  |
| Sq. Total current           | 64 A <sup>2</sup> (observe derating)                                    |
| Switching frequency         | max. 0.5 Hz   |
| Mechanical service life     | 10x 10 <sup>6</sup> cycles  |
| Output fuse                 | 10 A gL/gG  |
|                             | 6 A gL/gG (for low-demand applications)                                 |

Relay: Confirmation current path (11/12)

|                             |                             |
|-----------------------------|-----------------------------|
| Output description          | Safety-related N/C contacts |
| Number of outputs           | 1 (undelayed)               |
| Contact switching type      | 1 confirmation current path |
| Contact material            | AgSnO                       |
| Switching voltage           | min. 5 V AC/DC              |
|                             | max. 24 V DC                |
| Switching capacity          | min. 50 mW                  |
| Inrush current              | min. 10 mA                  |
|                             | max. 100 mA                 |
| Limiting continuous current | 100 mA                      |
| Switching frequency         | max. 0.5 Hz                 |
| Mechanical service life     | 10x 10 <sup>6</sup> cycles  |

Signal: M1

|                          |                                       |
|--------------------------|---------------------------------------|
| Output description       | non-safety-related                    |
| Number of outputs        | 1 (digital, PNP)                      |
| Voltage                  | typ. 23 V DC (U <sub>S</sub> - 1 V)   |
| Current                  | max. 100 mA                           |
| Maximum inrush current   | 500 mA (Δt = 1 ms at U <sub>S</sub> ) |
| Short-circuit protection | Yes                                   |

# PSR-MC82-5NO-1NC-1DO-24DC-SC - Extension module



2702382

<https://www.phoenixcontact.com/us/products/2702382>

## Connection data

### Connection technology

|           |     |
|-----------|-----|
| pluggable | yes |
|-----------|-----|

### Conductor connection

|                                  |                     |
|----------------------------------|---------------------|
| Connection method                | Screw connection    |
| Conductor cross section rigid    | 0.2 mm² ... 2.5 mm² |
| Conductor cross section flexible | 0.2 mm² ... 2.5 mm² |
| Conductor cross-section AWG      | 24 ... 12           |
| Stripping length                 | 7 mm                |
| Screw thread                     | M3                  |

## Signaling

|                |                 |
|----------------|-----------------|
| Status display | 2 x LED (green) |
|----------------|-----------------|

## Dimensions

|        |          |
|--------|----------|
| Width  | 17.5 mm  |
| Height | 112.2 mm |
| Depth  | 114.5 mm |

## Material specifications

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

## Characteristics

### Safety data

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

### 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) |
|------------------------------|--|

### Safety data: IEC 61508 - Low demand

|                              |  |
|------------------------------|--|
| Safety Integrity Level (SIL) | 3 (In conjunction with suitable evaluating device) |
|------------------------------|--|

### Safety data: EN IEC 62061

|                              |  |
|------------------------------|--|
| Safety Integrity Level (SIL) | 3 (In conjunction with suitable evaluating device) |
|------------------------------|--|

## Environmental and real-life conditions

### Ambient conditions

|   |      |
|---|------|
| Degree of protection                        | IP20 |
| Min. degree of protection of inst. location | IP54 |

# PSR-MC82-5NO-1NC-1DO-24DC-SC - Extension module



2702382

<https://www.phoenixcontact.com/us/products/2702382>

|  |   |
|--|---|
| Ambient temperature (operation)                | -20 °C ... 60 °C (observe derating)   |
| Ambient temperature (storage/transport)        | -40 °C ... 80 °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 (In the event of stress caused by shock, contact reactions are possible for up to 6 ms.)                      |
| Vibration (operation)                          | 10 Hz ... 150 Hz, 2g (In the event of stress caused by vibration, contact reactions are possible for up to 1 ms.) |

## Approvals

CE

|                |              |
|----------------|--------------|
| Identification | CE-compliant |
|----------------|--------------|

## Mounting

|                   |                        |
|-------------------|------------------------|
| Mounting type     | DIN rail mounting      |
| Assembly note     | See derating curve     |
| Mounting position | vertical or horizontal |

# PSR-MC82-5NO-1NC-1DO-24DC-SC - Extension module

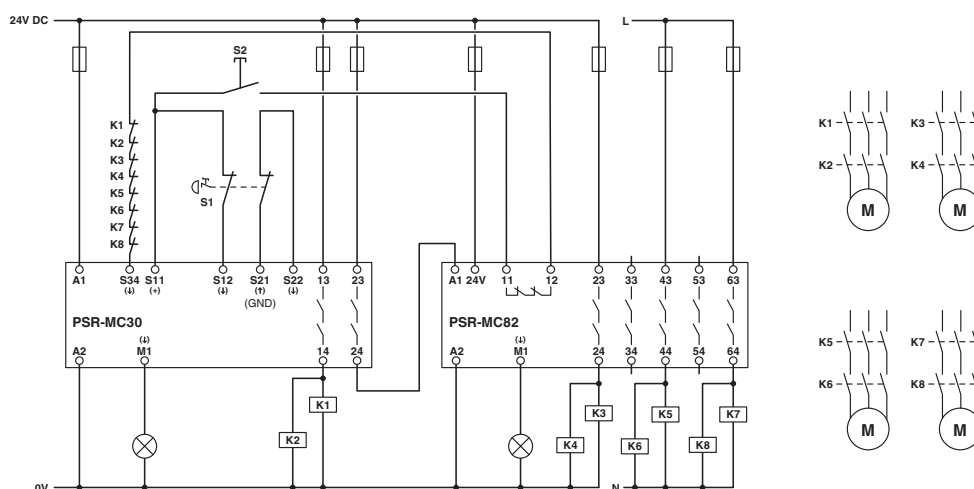


2702382

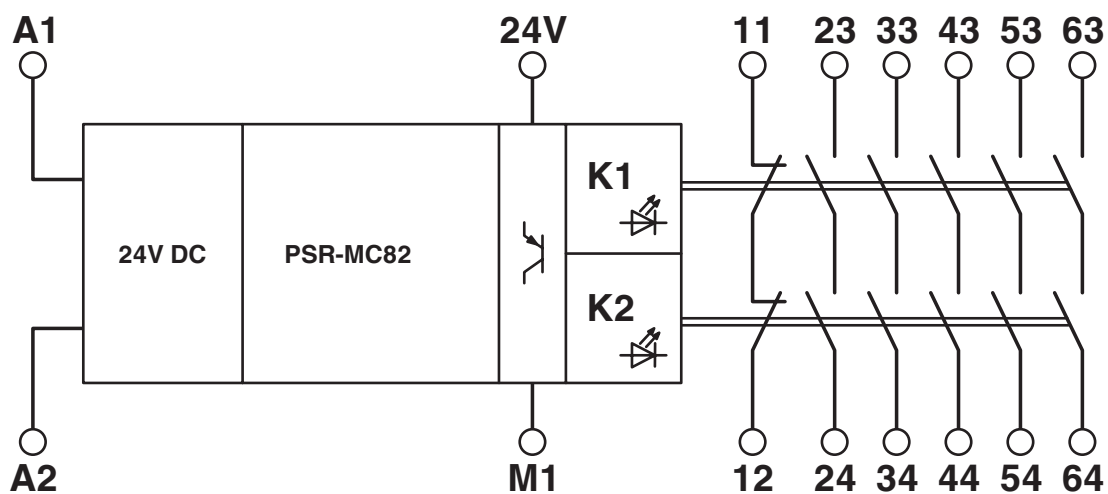
<https://www.phoenixcontact.com/us/products/2702382>

## Drawings

Circuit diagram



Block diagram



Block diagram


# PSR-MC82-5NO-1NC-1DO-24DC-SC - Extension module



2702382

<https://www.phoenixcontact.com/us/products/2702382>

## Approvals

 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2702382>



### Functional Safety

Approval ID: 44-205-15124303



### Functional Safety

Approval ID: 44 205 15124303



### cULus Listed

Approval ID: E140324



### Functional Safety

Approval ID: 4478015124303

# PSR-MC82-5NO-1NC-1DO-24DC-SC - Extension module



2702382  
<https://www.phoenixcontact.com/us/products/2702382>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27371819 |
|-------------|----------|

### ETIM

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

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39122200 |
|-------------|----------|



# PSR-MC82-5NO-1NC-1DO-24DC-SC - Extension module



2702382

<https://www.phoenixcontact.com/us/products/2702382>

## 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                                | 5cc21dee-aeaf-4113-b01b-485afa7da360 |

Phoenix Contact 2025 © - all rights reserved

<https://www.phoenixcontact.com>

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