

# Extension module - PSR-MC82-5NO-1NC-1DO-24DC-SC - 2702382

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Contact extension up to SILCL 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 according to ISO 13849-1, SILCL 3 according to IEC 62061 in conjunction with suitable evaluation device
- Low housing width of just 17.5 mm
- One or two-channel activation
- 5 enabling current paths, 1 confirmation current path, 1 digital signal output
- Automatic activation



## Key commercial data

<b>package_quantity</b>	1
<b>GTIN</b>	4055626145471

## Technical data

### Note

<b>Utilization restriction</b>	EMC: class A product, see manufacturer's declaration in the download area
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### Dimensions

<b>Width</b>	17.5 mm
<b>Height</b>	112.2 mm
<b>Depth</b>	114.5 mm

### Ambient conditions

<b>Ambient temperature (operation)</b>	-20 °C ... 60 °C (observe derating)
<b>Ambient temperature (storage/transport)</b>	-40 °C ... 80 °C
<b>Max. permissible relative humidity (operation)</b>	75 % (on average, 85% infrequently, non-condensing)
<b>Max. permissible humidity (storage/transport)</b>	75 % (on average, 85% infrequently, non-condensing)
<b>Shock</b>	15g (In the event of stress caused by shock, contact reactions are possible for up to 6 ms.)
<b>Maximum altitude</b>	max. 2000 m (Above sea level)

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## Technical data

### Input data

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	30 mA ( $\Delta t = 7$ ms at $U_s$ )
Typical response time	< 50 ms
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
Status display	2 x green LEDs
Maximum switching frequency	0.5 Hz
Filter time	4 ms (at A1-A2 in the event of voltage dips at $U_s$ )
Filter time	max. 1 ms (at A1/A2, test pulse width, blanking pulses/dark test)
Filter time	5 ms (at A1/A2, test pulse rate, blanking pulses/dark test)
Filter time	Where test pulse width < 1 ms: test pulse rate = 5 x test pulse width
Filter time	max. 1 ms (at A1/A2, test pulse width, switch-on pulses/light test)
Filter time	10 ms (at A1/A2; test pulse rate; switch-on pulses/light test)
Filter time	Deactivate switch-on pulses/light tests for safety applications.

### Output data

Contact type	5 enabling current paths
Contact type	1 confirmation current path
Contact material	AgSnO <sub>2</sub>
Minimum switching voltage	5 V AC/DC
Maximum switching voltage	24 V DC (Enabling current path 23/24)
Maximum switching voltage	250 V AC/DC (all other enabling current paths, observe load curve)
Limiting continuous current	6 A (observe derating)
Inrush current, minimum	10 mA
Maximum inrush current	6 A
Sq. Total current	64 A <sup>2</sup> (observe derating)
Switching capacity	min. 50 mW
Output fuse	10 A gL/gG (N/O contact)
Output fuse	6 A gL/gG (N/C contact)
Output fuse	6 A gL/gG (N/O contact, for low-demand applications)
Output fuse	4 A gL/gG (N/C contact, for low-demand applications)

### Alarm outputs

Number of outputs	1 (digital, PNP)
Voltage	typ. 23 V DC ( $U_s - 1$ V)
Current	max. 100 mA

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## Technical data

### Alarm outputs

<b>Maximum inrush current</b>	500 mA ( $\Delta t = 1 \text{ ms}$ at $U_s$ )
<b>Short-circuit protection</b>	Yes

### General

<b>Relay type</b>	Electromechanical relay with forcibly guided contacts in accordance with EN 50205
<b>Mechanical service life</b>	$10 \times 10^6$ cycles
<b>Nominal operating mode</b>	100% operating factor
<b>Net weight</b>	215 g
<b>Mounting type</b>	DIN rail mounting
<b>Assembly instructions</b>	See derating curve
<b>Mounting position</b>	vertical or horizontal
<b>Degree of protection</b>	IP20
<b>Min. degree of protection of inst. location</b>	IP54
<b>Control</b>	one and two channel
<b>Housing color</b>	yellow

### Connection data

<b>Connection method</b>	Screw connection
<b>pluggable</b>	Yes
<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 flexible min.</b>	0.2 mm <sup>2</sup>
<b>Conductor cross section flexible max.</b>	2.5 mm <sup>2</sup>
<b>Conductor cross section AWG min.</b>	24
<b>Conductor cross section AWG max.</b>	12
<b>Stripping length</b>	7 mm
<b>Screw thread</b>	M3

### Safety-related characteristic data

<b>Stop category</b>	0
<b>Designation</b>	IEC 61508 - High demand
<b>Safety Integrity Level (SIL)</b>	3 (In conjunction with suitable evaluating device)
<b>Designation</b>	IEC 61508 - Low demand
<b>Safety Integrity Level (SIL)</b>	3 (In conjunction with suitable evaluating device)
<b>Designation</b>	EN ISO 13849
<b>Performance level (PL)</b>	e (In conjunction with suitable evaluating device)
<b>Category</b>	4 (In conjunction with suitable evaluating device)
<b>Designation</b>	EN 62061
<b>Safety Integrity Level Claim Limit (SIL CL)</b>	3 (In conjunction with suitable evaluating device)

### Standards and Regulations

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## Technical data

### Standards and Regulations

<b>Shock</b>	15g (In the event of stress caused by shock, contact reactions are possible for up to 6 ms.)
<b>Designation</b>	Air clearances and creepage distances between the power circuits
<b>Standards/regulations</b>	DIN EN 50178
<b>Rated insulation voltage</b>	250 V AC
<b>Rated insulation voltage</b>	250 V AC
<b>Rated surge voltage/insulation</b>	Basic insulation 4 kV between all current paths
<b>Rated surge voltage/insulation</b>	Basic insulation 4 kV between all current paths and housing
<b>Rated surge voltage/insulation</b>	Safe isolation, reinforced insulation 6 kV between input circuits and enabling current paths 33/34, 43/44, and 63/64
<b>Degree of pollution</b>	2
<b>Overvoltage category</b>	III
<b>Vibration (operation)</b>	10 Hz ... 150 Hz, 2g (In the event of stress caused by vibration, contact reactions are possible for up to 1 ms.)
<b>Conformance</b>	CE-compliant

### Environmental Product Compliance

<b>China RoHS</b>	Environmentally Friendly Use Period = 50
<b>China RoHS</b>	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Classifications

### eCl@ss

<b>eCl@ss 5.1</b>	27371901
<b>eCl@ss 6.0</b>	27371819
<b>eCl@ss 8.0</b>	27371819
<b>eCl@ss 9.0</b>	27371819

### ETIM

<b>ETIM 3.0</b>	EC001449
<b>ETIM 4.0</b>	EC001449
<b>ETIM 5.0</b>	EC001449
<b>ETIM 6.0</b>	EC001449

### UNSPSC

<b>UNSPSC 13.2</b>	39121501
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## Approvals

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

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### Approval details

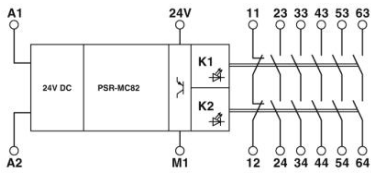
# Extension module - PSR-MC82-5NO-1NC-1DO-24DC-SC - 2702382

## Approvals

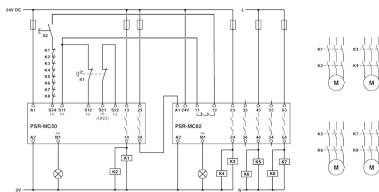
- UL Listed
- cUL Listed
- Functional Safety
- cULus Listed

## Drawings

### Block diagram



### Circuit diagram



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