

Extension module - PSR-SCP- 24UC/URM4/5X1/2X2/B - 2981033

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

Product Features

- Five enabling, one signaling, and one confirmation current path
- Up to Cat. 4/PL e according to ISO 13849-1, SILCL 3 according to IEC 62061, SIL 3 according to IEC 61508
- Single and two-channel control



Key commercial data

package_quantity	1
GTIN	4017918915513

Technical data

Note

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

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Max. permissible relative humidity (operation)	75 %
Max. permissible humidity (storage/transport)	75 %

Input data

Nominal input voltage U_N	24 V AC/DC
Input voltage range in reference to U_N	0.8 ... 1.1
Typical input current at U_N	92 mA
Typical response time	20 ms
Typical release time	20 ms

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Input data

Status display	Green LED
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Output data

Contact type	5 enabling current paths
Contact type	1 signaling current path
Contact type	1 confirmation current path
Contact material	AgSnO ₂ , + 0.2 µm Au
Minimum switching voltage	15 V AC/DC
Maximum switching voltage	250 V AC/DC
Limiting continuous current	6 A (N/O contact)
Limiting continuous current	3 A (N/C contact)
Inrush current, minimum	25 mA
Maximum inrush current	6 A (N/O contact)
Maximum inrush current	3 A (N/C contact)
Sq. Total current	$72 \text{ A}^2 (I_{TH}^2 = I_1^2 + I_2^2 + \dots + I_5^2)$
Interrupting rating (ohmic load) max.	144 W (24 V DC, τ = 0 ms, N/C contact 11/12, 71/72: 72 W)
Interrupting rating (ohmic load) max.	288 W (48 V DC, τ = 0 ms, N/C contact 11/12, 71/72: 144 W)
Interrupting rating (ohmic load) max.	110 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.	1500 VA (250 V AC, τ = 0 ms, N/C contact 11/12, 71/72: 750 VA)
Maximum interrupting rating (inductive load)	42 W (24 V DC, τ = 40 ms)
Maximum interrupting rating (inductive load)	42 W (48 V DC, τ = 40 ms)
Maximum interrupting rating (inductive load)	42 W (110 V DC, τ = 40 ms)
Maximum interrupting rating (inductive load)	42 W (220 V DC, τ = 40 ms)
Switching capacity min.	0.4 W
Output fuse	6 A fast blow
Output fuse	C6 (24 V AC/DC) automatic device

General

Relay type	Electromechanically forcibly guided, dust-proof relay.
Mechanical service life	Approx. 10 ⁷ cycles
Mounting type	DIN rail mounting
Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Mounting position	any
Category according to EN 13849-1	4
Stop category	0
Designation	Air and creepage distances between the power circuits
Standards/regulations	DIN EN 50178/VDE 0160
Rated surge voltage / insulation	4 kV / basic isolation (safe isolation, increased isolation and 6 kV between A1/A2, 11/12, 23/24, 71/72 and 33/34, 43/44, 53/54, 63/64.)
Rated insulation voltage	250 V

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General

Pollution degree	2
Surge voltage category	III

Connection data

Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Stripping length	7 mm
Screw thread	M3
Connection method	Screw connection

Safety-related characteristic data

Stop category	0
Designation	IEC 61508 - High demand
Safety Integrity Level (SIL)	3
SFF_{Single-channel}	100 %
SFF_{Two-channel}	99.5 %
Probability of a hazardous failure per hour (PFH_D)	1.02 x 10 ⁻¹⁰ (8766 switching cycles per year; B10d = 230,000 at 3 A AC 15; in conjunction with suitable evaluating device)
Diagnostic coverage (DC)	99 % (In conjunction with suitable evaluating device)
Proof test interval	240 Months
Note	The details apply assuming the following calculation basis: dop: 365.25 days (assumption)hop: 24 hours (assumption)tcycle: 3600 seconds (assumption)B10d for AC-15 6A: 230 000 (manufacturer's value)Data only applies if the safety function is demanded at least once a year. Only applies if signal contact is left in position!
Designation	IEC 61508 - Low demand
Safety Integrity Level (SIL)	3
SFF_{Single-channel}	100 %
SFF_{Two-channel}	80.02 %
Probability of a hazardous failure on demand (PFD_{AVG})	1,50 x 10 ⁻⁴
Diagnostic coverage (DC)	0 %
Proof test interval	84 Months
Designation	EN ISO 13849
Performance level (PL)	e
Category	4
CCF	Passed
T_{10d}	26 Years
Note	The details apply assuming the following calculation basis: dop: 365.25 days (assumption)hop: 24 hours (assumption)tcycle: 3600 seconds (assumption)B10d for AC-15 6A: 230 000 (manufacturer's

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Technical data

Safety-related characteristic data

	value)Data only applies if the safety function is demanded at least once a year. Only applies if signal contact is left in position!
Designation	EN 62061
Safety Integrity Level Claim Limit (SIL CL)	3
PFH_b	1,02 x 10 ⁻¹⁰
Note	The details apply assuming the following calculation basis: dop: 365.25 days (assumption)hop: 24 hours (assumption)cycle: 3600 seconds (assumption)B10d for AC-15 6A: 230 000 (manufacturer's value)Data only applies if the safety function is demanded at least once a year. Only applies if signal contact is left in position!

classifications

eCl@ss

eCl@ss 4.0	27371102
eCl@ss 4.1	27371102
eCl@ss 5.0	27371901
eCl@ss 5.1	27371901
eCl@ss 6.0	27371819
eCl@ss 7.0	27371819
eCl@ss 8.0	27371819

ETIM

ETIM 2.0	EC001449
ETIM 3.0	EC001449
ETIM 4.0	EC001449
ETIM 5.0	EC001449

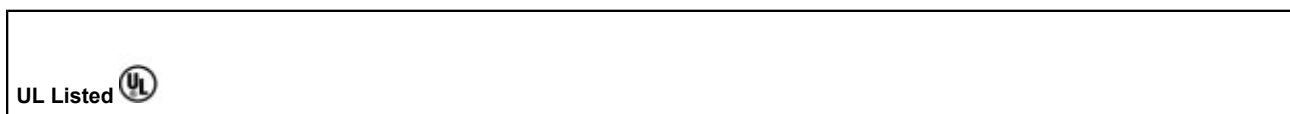
UNSPSC

UNSPSC 6.01	30211901
UNSPSC 7.0901	39121501
UNSPSC 11	39121501
UNSPSC 12.01	39121501
UNSPSC 13.2	39121501

approvals

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

Approval details

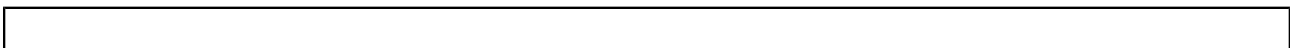
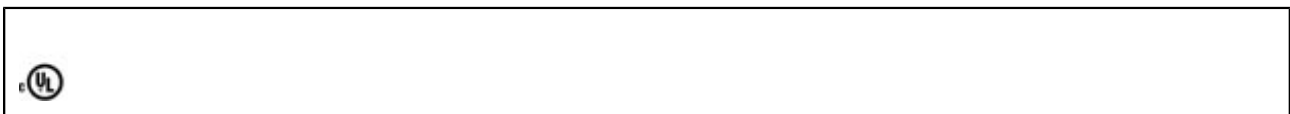
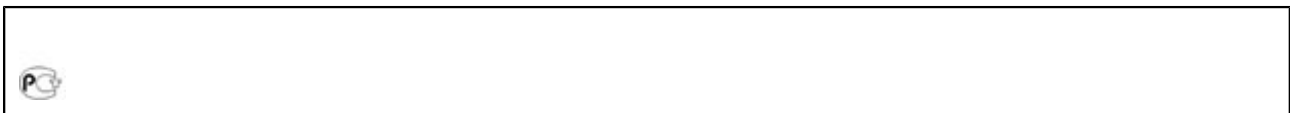
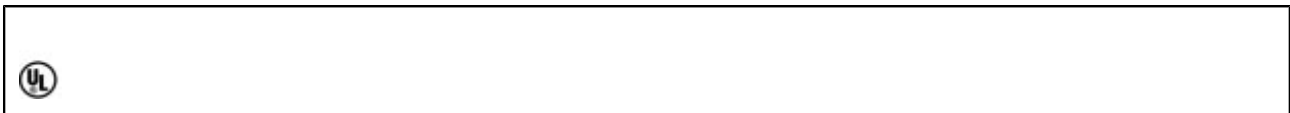


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approvals



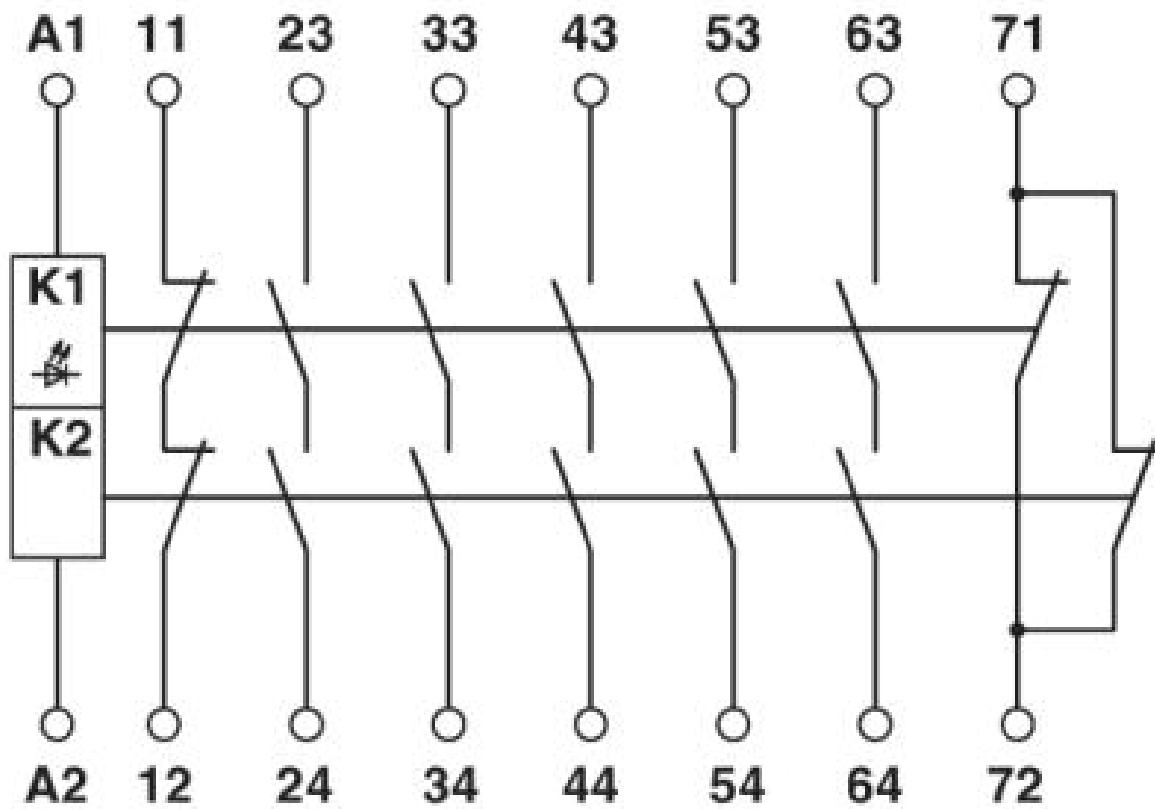
Functional Safety



Drawings

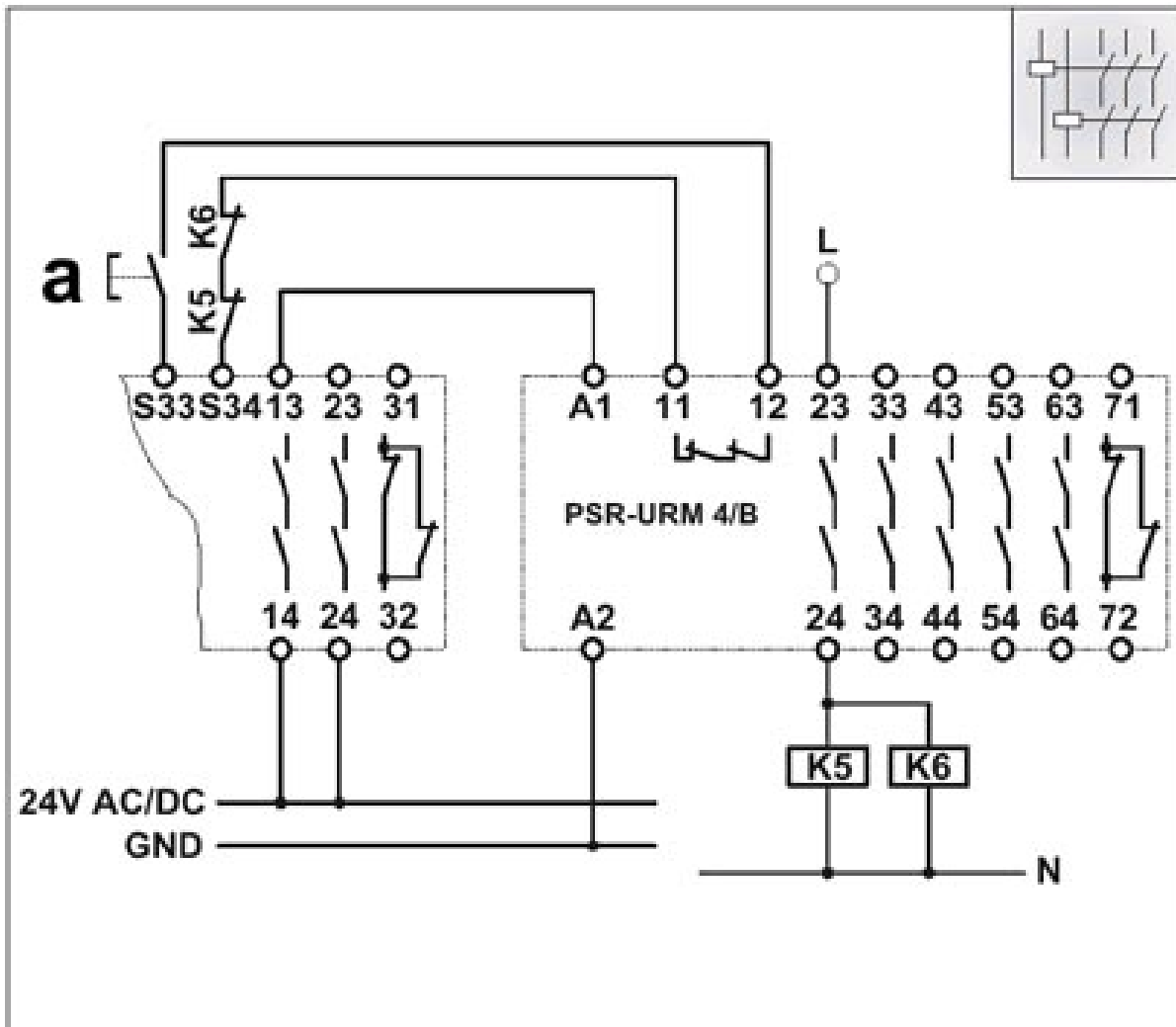
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Circuit diagram



Extension module - PSR-SCP- 24UC/URM4/5X1/2X2/B - 2981033

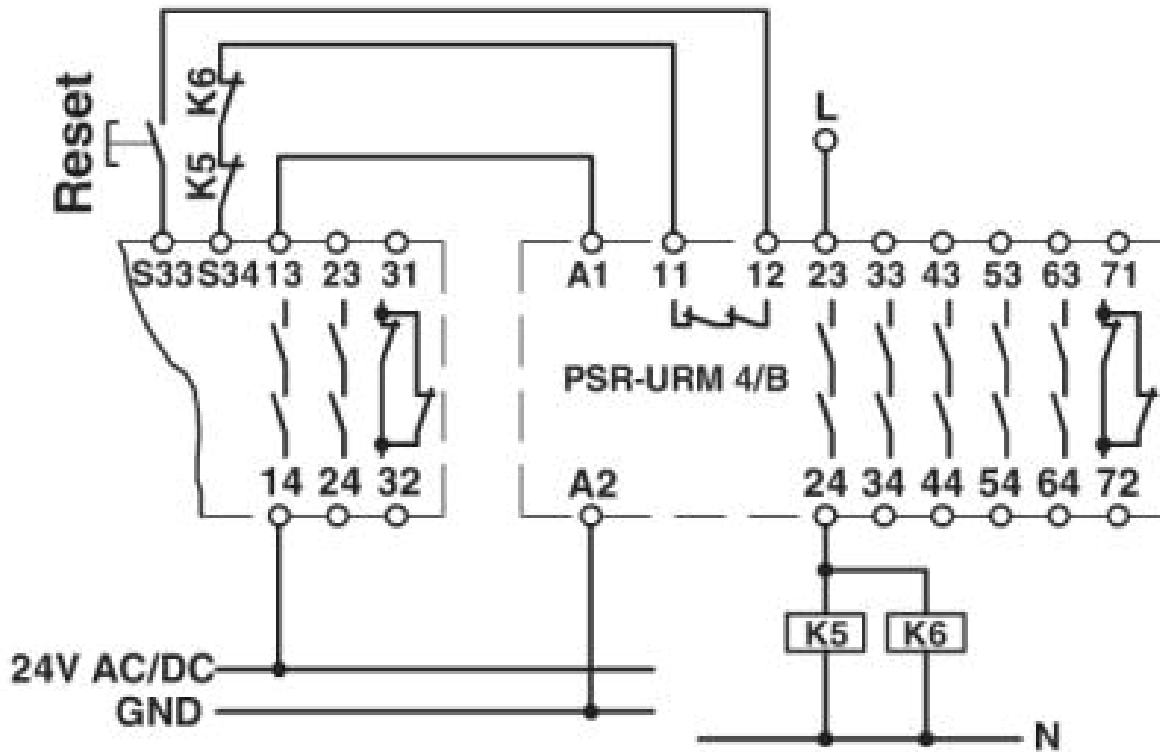
Circuit diagram



a = RESET One-channel connection with checkback path 11/12 integrated in the basic device, suitable up to safety category 2/4. Depends on the basic device. With externally monitored contacts.

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Circuit diagram



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