

Extension module - PSR-SPP- 24DC/URM4/4X1/2X2/B - 2981680

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1-channel contact extension with TBUS interface, 4 N/O contacts, 1 N/C contact, 1 confirmation current path, undelayed, Cat. 4, PL e according to EN ISO 13849, pluggable spring-cage terminal block, width: 22.5 mm


The figure shows a version with a screw connection

Your advantages

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



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 081542
GTIN	4046356081542
Weight per Piece (excluding packing)	196.500 g
Custom tariff number	85371098
Country of origin	Germany

Technical data

Dimensions

Width	22.5 mm
Height	112 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 % (on average, 85% infrequently, non-condensing)

Extension module - PSR-SPP- 24DC/URM4/4X1/2X2/B - 2981680

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Ambient conditions

Max. permissible humidity (storage/transport)	75 % (on average, 85% infrequently, non-condensing)
Maximum altitude	max. 2000 m (Above sea level)

Input data

Nominal input voltage U_N	24 V DC
Input voltage range in reference to U_N	0.9 ... 1.1
Typical input current at U_N	42 mA
Typical response time	10 ms
Typical release time	10 ms
Recovery time	1 s
Status display	Green LED
Protective circuit	Surge protection Suppressor diode

Output data

Contact type	4 enabling current paths
	1 signaling current path
	1 confirmation current path
Contact material	AgSnO ₂
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	15 V AC/DC
Limiting continuous current	6 A (N/O contact, DC1/AC1)
	3 A (N/C contact)
Maximum inrush current	6 A (N/O contact, DC1/AC1)
	3 A (N/C contact)
Inrush current, minimum	25 mA
Sq. Total current	$72 \text{ A}^2 (I_{TH}^2 = I_1^2 + I_2^2 + I_3^2 + I_4^2)$
Interrupting rating (ohmic load) max.	144 W (24 V DC, $\tau = 0 \text{ ms}$, N/C contact 61/62: 72 W)
	288 W (48 V DC, $\tau = 0 \text{ ms}$, N/C contact 61/62: 144 W)
	77 W (110 V DC, $\tau = 0 \text{ ms}$)
	88 W (220 V DC, $\tau = 0 \text{ ms}$)
	1500 VA (250 V AC, $\tau = 0 \text{ ms}$, N/C contact 61/62: 750 VA)
Maximum interrupting rating (inductive load)	48 W (24 V DC, $\tau = 40 \text{ ms}$)
	40 W (48 V DC, $\tau = 40 \text{ ms}$)
	35 W (110 V DC, $\tau = 40 \text{ ms}$)
	33 W (220 V DC, $\tau = 40 \text{ ms}$)
Switching capacity min.	0.4 W
Mechanical service life	approx. 10^7 cycles
Switching capacity (360/h cycles)	6 A (24 V DC)
	5 A (230 V AC)
Switching capacity according to IEC 60947-5-1	5 A (DC13)
	5 A (AC15)

Extension module - PSR-SPP- 24DC/URM4/4X1/2X2/B - 2981680

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Output data

Output fuse	10 A gL/gG NEOZED (N/O contact)
	4 A gL/gG NEOZED (N/C contact)

General

Relay type	Electromechanical relay with forcibly guided contacts in accordance with EN 50205
Nominal operating mode	100% operating factor
Net weight	196.5 g
Mounting position	any
Mounting type	DIN rail mounting
Degree of protection	IP20
	IP54
Min. degree of protection of inst. location	IP54
Housing color	yellow

Connection data

Connection method	Spring-cage connection
pluggable	Yes
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	1.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16
Stripping length	8 mm

Safety-related characteristic data

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

Standards and Regulations

Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	IEC 60947-1
Rated insulation voltage	250 V
Rated surge voltage/insulation	4 kV / basic isolation (safe isolation, reinforced insulation and 6 kV between input circuit/N/C contacts and enabling current paths).

Extension module - PSR-SPP- 24DC/URM4/4X1/2X2/B - 2981680

Technical data

Standards and Regulations

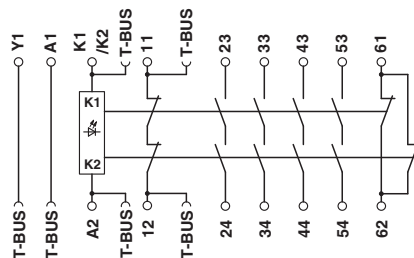
Degree of pollution	2
Overvoltage category	III

Environmental Product Compliance

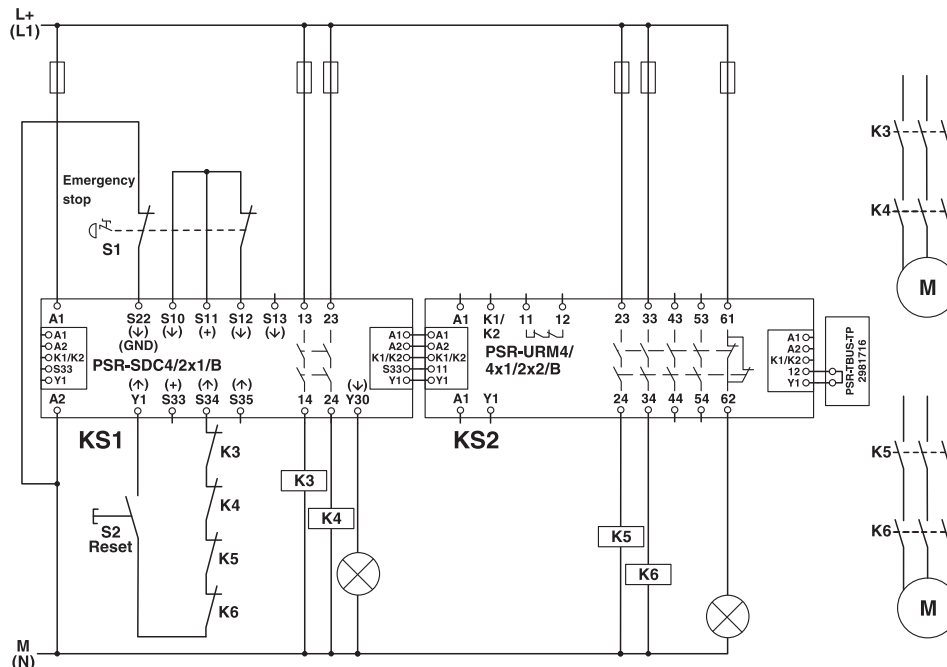
REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

Circuit diagram



Circuit diagram



Two-channel emergency stop monitoring with contact extension

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Classifications

eCl@ss

eCl@ss 4.0	27371102
eCl@ss 4.1	27371102
eCl@ss 5.0	27371901
eCl@ss 5.1	27371900
eCl@ss 6.0	27371800
eCl@ss 7.0	27371819
eCl@ss 8.0	27371819
eCl@ss 9.0	27371819

ETIM

ETIM 2.0	EC001449
ETIM 3.0	EC001449
ETIM 4.0	EC001449
ETIM 5.0	EC001449
ETIM 6.0	EC001449

UNSPSC

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

Approvals

Approvals

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UL Listed / cUL Listed / EAC / cULus Listed


Ex Approvals

Approval details


UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
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Approvals

cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
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EAC			RU C- DE.A*30.B.01082
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cULus Listed			
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Accessories

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DIN rail connector

DIN rail bus connectors - PSR-TBUS - 2890425



DIN rail connector for safety switching devices, for supplying/controlling/monitoring (depending on the module)

DIN rail bus connectors - PSR-TBUS-TP - 2981716



Blind plug for the PSR-TBUS DIN rail connector used with the modular safety relay system (PSR-SDC4)