

Extension module - PSR-SCP-24DC/URML4/3X1/1X2/B - 2903583

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Single or two-channel contact extension for OSSD signals (e.g., light grid), 3 N/O contacts, 1 N/C contact, up to Cat. 4 PL e according to EN ISO 13849, SIL 3 according to EN 62061, plug-in screw terminal blocks, width: 22.5 mm

Article description

The contact extension device is specifically designed for use in conjunction with electrosensitive protective equipment such as light grids. These systems generally have clocked OSSD signals which enable cross circuits in the cabling to be detected. The relay is resistant to the test pulses generated by the electrosensitive protective equipment receiver. Applications up to PL e or SIL 3 can therefore be implemented without the need for additional traceability to the device on the EDM circuit.



Key commercial data

package_quantity	1
GTIN	4046356751698

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 % (on average, 85% infrequently, non-condensing)
Max. permissible humidity (storage/transport)	75 % (on average, 85% infrequently, non-condensing)
Shock	15g
Vibration (operation)	10 Hz ... 150 Hz, 2g
Maximum altitude	≤ 2000 m (Above sea level)

Input data

Nominal input voltage U_N	24 V DC
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Input data

Input voltage range in reference to U_N	0.85 ... 1.1
Typical input current at U_N	70 mA DC
Voltage at input/start and feedback circuit	24 V DC
Typical response time	25 ms (man. start)
Typ. starting time with U_s	100 ms (automatic start)
Typical release time	10 ms
Concurrence input 1/2	∞
Recovery time	1 s

Output data

Contact type	3 enabling current paths
Contact type	1 signaling current path
Contact material	AgSnO ₂
Minimum switching voltage	15 V AC/DC
Maximum switching voltage	250 V AC/DC
Limiting continuous current	6 A (N/C contact / N/O contact)
Inrush current, minimum	25 mA
Maximum inrush current	6 A
Sq. Total current	$72 \text{ A}^2 (I_{TH}^2 = I_1^2 + I_2^2 + I_3^2)$
Interrupting rating (ohmic load) max.	144 W (24 V DC, $\tau = 0 \text{ ms}$)
Interrupting rating (ohmic load) max.	288 W (48 V DC, $\tau = 0 \text{ ms}$)
Interrupting rating (ohmic load) max.	77 W (110 V DC, $\tau = 0 \text{ ms}$)
Interrupting rating (ohmic load) max.	88 W (220 V DC, $\tau = 0 \text{ ms}$)
Interrupting rating (ohmic load) max.	1500 VA (250 V AC, $\tau = 0 \text{ ms}$)
Maximum interrupting rating (inductive load)	48 W (24 V DC, $\tau = 40 \text{ ms}$)
Maximum interrupting rating (inductive load)	40 W (48 V DC, $\tau = 40 \text{ ms}$)
Maximum interrupting rating (inductive load)	35 W (110 V DC, $\tau = 40 \text{ ms}$)
Maximum interrupting rating (inductive load)	33 W (220 V DC, $\tau = 40 \text{ ms}$)
Switching capacity min.	0.4 W
Output fuse	10 A gL/gG NEOZED (N/O contact)
Output fuse	4 A gL/gG NEOZED (Signaling current path)

General

Relay type	Electromechanical relay with forcibly guided contacts in accordance with EN 50205
Mechanical service life	Approx. 10^7 cycles
Nominal operating mode	100% operating factor
Net weight	210.9 g
Mounting type	DIN rail mounting
Mounting position	any
Degree of protection	IP54
Degree of protection	IP20

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General

Min. degree of protection of inst. location	IP54
Control	one and two channel
Housing material	Polyamide PA non-reinforced
Housing color	yellow

Connection data

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

Safety-related characteristic data

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

Standards and Regulations

Shock	15g
Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	DIN EN 50178/VDE 0160
Rated insulation voltage	250 V
Rated surge voltage/insulation	4 kV / Basic isolation, (safe isolation, reinforced insulation and 6 kV between input circuit and enabling current paths.)
Degree of pollution	2
Overvoltage category	III
Vibration (operation)	10 Hz ... 150 Hz, 2g

Environmental Product Compliance

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

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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	27371901
eCl@ss 6.0	27371819
eCl@ss 7.0	27371819
eCl@ss 8.0	27371819
eCl@ss 9.0	27371819

ETIM

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

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

Approval details

Functional Safety

UL Listed

cUL Listed

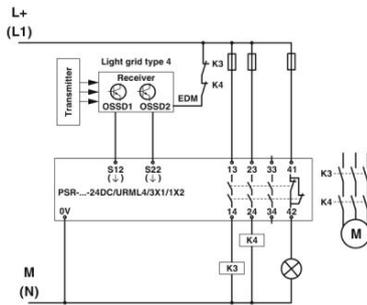
EAC

cULus Listed

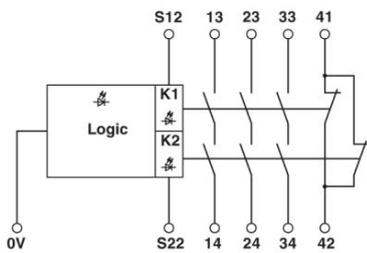
Drawings

Extension module - PSR-SCP-24DC/URML4/3X1/1X2/B - 2903583

Application drawing



Circuit diagram



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