

Extension module - PSR-SPP- 24DC/URD3/4X1/2X2 - 2981525

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Single-channel contact extension with TBUS interface, 4 N/O contacts, 1 N/C contact, 1 confirmation current path, adjustable dropout delay of 0.5 - 30 s, Cat. 3, PL e according to EN ISO 13849, plug-in spring-cage terminal block, width: 22.5 mm

The figure shows a version with a screw connection

Why buy this product

- ✓ Up to Cat. 3/PL d according to ISO 13849-1, SILCL 2 according to IEC 62061, SIL 2 according to IEC 61508
- ✓ Each with 4 enabling, 1 signaling, and 1 confirmation current path, all with dropout delay
- ✓ Single-channel control



Key Commercial Data

Packing unit	1 STK
GTIN	 4 017918 996819
GTIN	4017918996819
Weight per Piece (excluding packing)	206.300 g
Custom tariff number	85371098
Country of origin	Germany

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
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Technical data

Dimensions

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)
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	0.85 ... 1.1
Typical input current at U_N	84 mA
Typical response time	20 ms
Typical release time range	0.5 s ... 38 s ± 20 % (BG rating to max. 30 s)
Recovery time	1 s
Status display	Green LED

Output data

Contact type	4 delayed enabling current paths
	1 delayed signaling current path
	1 delayed confirmation 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/O contact)
	3 A (N/C contact)
Inrush current, minimum	25 mA
Maximum inrush current	6 A (N/O contact)
	3 A (N/C contact)
Sq. Total current	$50 \text{ A}^2 (I_{TH}^2 = I_1^2 + I_2^2 + I_3^2 + I_4^2)$
Interrupting rating (ohmic load) max.	114 W (24 V DC, $\tau = 0$ ms, N/C contact 65/66: 72 W)
	288 W (48 V DC, $\tau = 0$ ms)
	77 W (110 V DC, $\tau = 0$ ms)
	88 W (220 V DC, $\tau = 0$ ms)
	1500 VA (250 V AC, $\tau = 0$ ms, N/C contact 65/66: 750 VA)
Maximum interrupting rating (inductive load)	48 W (24 V DC, $\tau = 40$ ms)

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Output data

	40 W (48 V DC, $\tau = 40$ ms)
	35 W (110 V DC, $\tau = 40$ ms)
	33 W (220 V DC, $\tau = 40$ ms)
Switching capacity min.	0.4 W
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
Mechanical service life	Approx. 10^7 cycles
Nominal operating mode	100% operating factor
Net weight	229.16 g
Mounting type	DIN rail mounting
Mounting position	any
Degree of protection	IP54
	IP20
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	1
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)	d

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Technical data

Safety-related characteristic data

Category	3
Designation	EN 62061
Safety Integrity Level Claim Limit (SIL CL)	3

Standards and Regulations

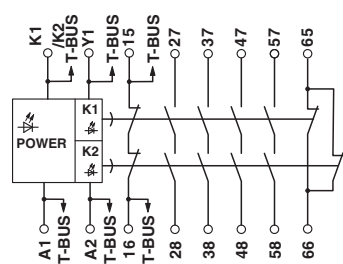
Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	DIN EN 50178/VDE 0160
Rated insulation voltage	250 V
Rated surge voltage/insulation	4 kV / basic isolation (safe isolation, reinforced insulation and 6 kV between input circuit/N/C contacts and enabling current paths).
Degree of pollution	2
Overvoltage category	III

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

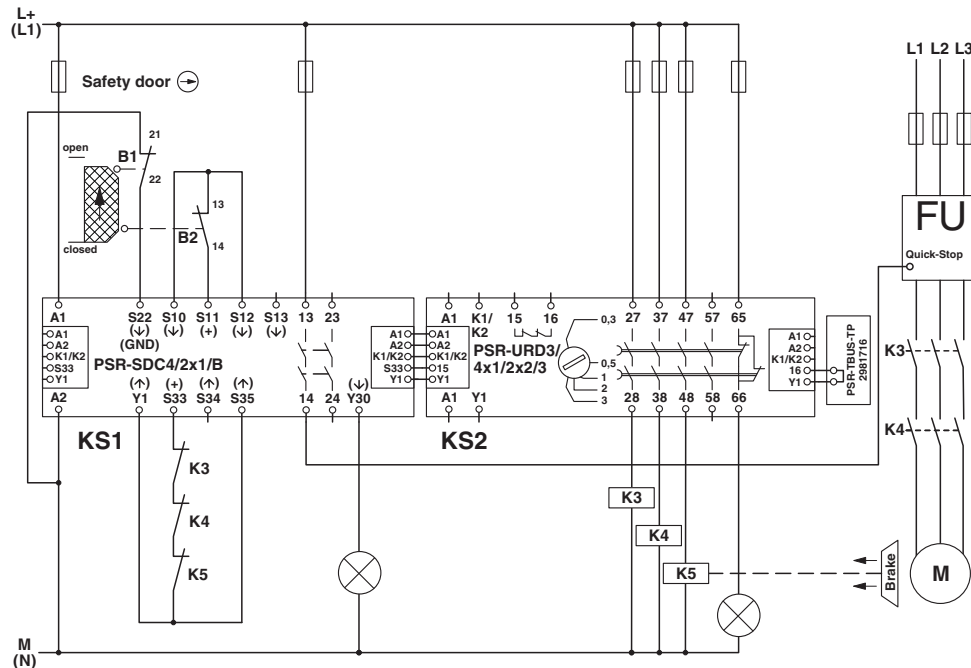
Drawings

Circuit diagram



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Circuit diagram



Two-channel safety door monitoring with contact extension

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

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Classifications

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 / Functional Safety / EAC / Functional Safety / Functional Safety / 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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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
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Functional Safety		968/EZ 366.02/15
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EAC		RU C- DE.A*30.B.01082
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Functional Safety		968/EZ 366.02/15
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Approvals

Functional Safety



968/EZ 366.02/15

cULus Listed



Accessories

Accessories

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)