PSR-SPP-42-230UC/URM4/4NO/2NC - Extension module

2702925

https://www.phoenixcontact.com/us/products/2702925

1- or 2-channel contact extension with wide range input, 4 N/O contacts, 1 N/C contact, 1 confirmation current path, together with basic device up to Cat. 4, PL e in accordance with EN ISO 13849, plug-in Push-in terminal block, width: 22.5 mm

Product description

The URM4 contact extension device enables safety-related signals to be further processed as floating contacts for an input voltage range of 42 to 230 V AC/DC. The contact extension device specifically covers the operating range above a nominal voltage of 24 V.
The new device is approved in accordance with EN 50156 and can therefore be used in furnaces without any additional effort. In particular when used in conjunction with the corresponding PSR safety relay as a basic device, safety circuits up to PL e or SIL 3 can be implemented.

Commercial data

Item number	2702925
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN01
Product key	DNA151
Catalog page	Page 232 (C-6-2019)
GTIN	4055626428895
Weight per piece (including packing)	206.48 g
Weight per piece (excluding packing)	170.91 g
Customs tariff number	85371098
Country of origin	DE

Technical data

Product properties

Product type	Safety relays
Product family	PSRclassic
Application	Extension module
Mechanical service life	10x 10^6 cycles
Relay type	Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3

Times

Typ. starting time with U_s	< 100 ms (with Us / when controlled via A1)
Typical release time	< 40 ms (Control via A1 at 42 V DC)
	< 200 ms (Control via A1 at 230 V AC)
Recovery time	< 1 s

Electrical properties

Maximum power dissipation for nominal condition	16.1 W (At I_L^2 = 72 A², $P_{Total\ max}$ = 1.7 W + 14.4 W)
Nominal operating mode	100% operating factor

Air clearances and creepage distances between the power circuits

Rated insulation voltage	250 V AC
Rated surge voltage/insulation	

Supply

Rated control circuit supply voltage U_S	42 V AC/DC -15 % / +10 %
	230 V AC/DC -15 % / +10 %
Rated control supply current I_S	typ. 35 mA (At 42 V DC)
	typ. 15 mA (@ 230 V AC)
Power consumption at U_S	1.5 W (with DC)
	1.7 W (with AC)
Apparent power	max. 3.5 VA (at U_S)
Inrush current	< 20 A (Δt = 100 µs at U_s)
Protective circuit	Surge protection; Suppressor diode and varistors

Output data

Relay: Enabling current paths (13/14, 23/24, 33/34, 43/44)

Output description	2 N/O contacts in series, safety-related, floating
Number of outputs	4
Contact switching type	4 enabling current paths
Contact material	$AgSnO_2$
Switching voltage	min. 5 V AC/DC
	max. 250 V AC
Switching capacity	min. 50 mW
Inrush current	min. 10 mA

	max. 8 A
Switching capacity in accordance with IEC 60947-5-1	5 A (AC15)
	6 A (DC13)
Limiting continuous current	6 A (observe derating)
Sq. Total current	72 A^2 (observe derating)
Switching frequency	max. 0.5 Hz
Output fuse	6 A gL/gG (High demand)
	4 A gL/gG (Low demand)

Relay: Diagnostics contact (51/52)

Output description	2 N/O contacts in series, floating
Number of outputs	1
Contact switching type	1 confirmation current path
Contact material	$AgSnO_2$
Switching voltage	min. 5 V AC/DC
	max. 250 V AC
Switching capacity	min. 50 mW
Inrush current	min. 10 mA
	max. 6 A
Switching capacity in accordance with IEC 60947-5-1	1 A (AC15)
	1 A (DC13)
Limiting continuous current	1 A (see to derating)
Sq. Total current	1 A^2 (see to derating)
Switching frequency	max. 0.5 Hz
Output fuse	1 A (gL/gG)

Relay: Signaling current path (61/62)

Output description	2 N/C contacts in parallel, floating
Number of outputs	1
Contact material	$AgSnO_2$
Switching voltage	min. 5 V AC/DC
	250 V AC
Switching capacity	min. 50 mW
Inrush current	max. 6 A
Switching capacity in accordance with IEC 60947-5-1	5 A (AC15)
	6 A (DC13)
Limiting continuous current	6 A (observe derating)
Sq. Total current	36 A^2 (observe derating)
Switching frequency	max. 0.5 Hz
Output fuse	1 A (gL/gG)

Connection data

Connection technology

pluggable	yes

Conductor connection

Connection method	Push-in connection
Conductor cross section rigid	0.2 mm² ... 1.5 mm²
Conductor cross section flexible	0.2 mm² ... 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 1.5 mm² (only together with CRIMPFOX 6)
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 1.5 mm² (only together with CRIMPFOX 6)
Conductor cross-section AWG	24 ... 16
Stripping length	8 mm

Signaling

Operating voltage display	1 x green LED

Dimensions

Width	22.5 mm
Height	112 mm
Depth	114.5 mm

Material specifications

Color (Housing)	yellow (RAL 1018)
Housing material	Polyamide

Characteristics

Safety data

Stop category	0

Safety data: EN ISO 13849

Category	4 (In conjunction with suitable evaluating device)
Performance level (PL)	e (In conjunction with suitable evaluating device)

Safety data: IEC 61508 - High demand

Safety Integrity Level (SIL)	3 (In conjunction with suitable evaluating device)

Safety data: IEC 61508 - Low demand

Safety Integrity Level (SIL)	3 (In conjunction with suitable evaluating device)

Safety data: EN IEC 62061

Safety Integrity Level (SIL)	3 (In conjunction with suitable evaluating device)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Ambient temperature (operation)	-20 °C ... 55 °C (observe derating)
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Maximum altitude	≤ 2000 m (Above sea level)
Max. permissible humidity (storage/transport)	75 % (on average, 85% infrequently, non-condensing)
Max. permissible relative humidity (operation)	75 % (on average, 85% infrequently, non-condensing)
Shock	15g
Vibration (operation)	10 Hz ... 150 Hz, amplitude 0.15 mm, 2g

Approvals

CE

Identification	CE-compliant

Standards and regulations

Air clearances and creepage distances between the power circuits

Standards/regulations	IEC 60664-1

Mounting

Mounting type	DIN rail mounting
Assembly instructions	See derating curve
Mounting position	vertical or horizontal

Classifications

ECLASS

ECLASS-11.0	27371819
ECLASS-13.0	27371819
ECLASS-12.0	27371819

ETIM

ETIM 8.0	EC001449

UNSPSC

UNSPSC 21.0	39122200

Environmental product compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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