

2981729

https://www.phoenixcontact.com/us/products/2981729

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1-channel contact extension with TBUS interface, 4 N/O contacts, 1 N/C contact, 1 confirmation current path, 2 sec. dropout delay, Cat. 3, PL d in accordance with EN ISO 13849, width: 22. 5 mm, plug-in Push-in terminal block

Your advantages

- Up to Cat. 3/PL e in accordance with EN ISO 13849-1, SIL 3 in accordance with EN IEC 62061, SIL 3 in accordance with IEC 61508
- Each with 4 enabling, 1 signaling, and 1 confirmation current path, all with dropout delay
- 1-channel control

Commercial data

Item number	2981729
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	DN01
Product key	DNA232
Catalog page	Page 52 (C-8-2015)
GTIN	4046356101882
Weight per piece (including packing)	232.2 g
Weight per piece (excluding packing)	204 g
Customs tariff number	85371099
Country of origin	DE



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Technical data

Notes

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EMC note	EMC: class A product, see manufacturer's declaration in the
	download area

Product properties

Product type	Safety relays
Application	Extension module
Mechanical service life	approx. 10 ⁷ cycles
Relay type	Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3

Electrical properties

Maximum power dissipation for nominal condition	2.02 W
Nominal operating mode	100% operating factor

Air clearances and creepage distances between the power circuits

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).

Input data

General

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	2 s
Recovery time	1 s
Protective circuit	Surge protection; Suppressor diode
	Fuse; PTC resistor
Operating voltage display	Green LED
Status display	Green LED

Output data

Contact switching type	4 delayed enabling current paths
	1 delayed signaling current path
	1 delayed confirmation current path
Contact material	$AgSnO_2$
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	15 V AC/DC



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6 A (N/O contact)
3 A (N/C contact)
6 A (N/O contact)
3 A (N/C contact)
25 mA
$50 \text{ A}^2 \left(I_{TH}^2 = I_1^2 + I_2^2 + I_3^2 + I_4^2 \right)$
114 W (24 V DC, τ = 0 ms, N/C contact 65/66: 72 W)
288 W (48 V DC, τ = 0 ms)
77 W (110 V DC, τ = 0 ms)
88 W (220 V DC, τ = 0 ms)
1500 VA (250 V AC, T = 0 ms, N/C contact 65/66: 750 VA)
48 W (24 V DC, τ = 40 ms)
40 W (48 V DC, T = 40 ms)
35 W (110 V DC, τ = 40 ms)
33 W (220 V DC, τ = 40 ms)
0.4 W
6 A (24 V DC)
5 A (230 V AC)
3 A (24 V (DC13))
3 A (230 V (AC15))
10 A gL/gG NEOZED (N/O contact)
4 A gL/gG NEOZED (N/C contact)

Connection data

pluggable

Connection technology

Conductor connection		
Connection method	Push-in connection	
Conductor cross section, rigid	0.2 mm ² 1.5 mm ²	
Conductor cross section, flexible	0.2 mm ² 1.5 mm ²	
Conductor cross section AWG	24 16	
Stripping length	8 mm	

yes

Dimensions

Width	22.5 mm
Height	112 mm
Depth	114.5 mm

Material specifications

Color	yellow

Characteristics

Safety data



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Stop category	1	
Safety data: EN ISO 13849		
Category	3	
Performance level (PL)	d	
Safety data: IEC 61508 - High demand		
Safety Integrity Level (SIL)	2	
Safety data: EN IEC 62061		
Safety Integrity Level (SIL)	2	

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP54
	IP20
Min. degree of protection of inst. location	IP54
Ambient temperature (operation)	-20 °C 55 °C
Ambient temperature (storage/transport)	-40 °C 70 °C
Max. permissible humidity (storage/transport)	75 % (on average, 85% infrequently, non-condensing)
Max. permissible relative humidity (operation)	75 % (on average, 85% infrequently, non-condensing)

Standards and regulations

Air clearances and creepage distances between the power circuits

Standards/regulations	DIN EN 50178/VDE 0160
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Mounting

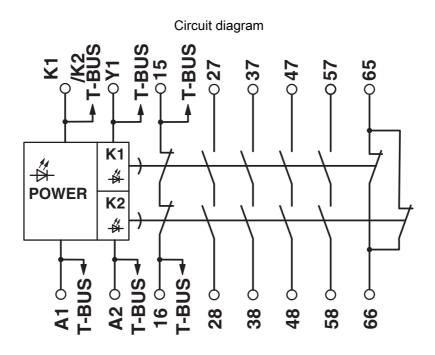
Mounting type	DIN rail mounting
Mounting position	any



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Drawings



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