

2981732

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1-channel contact extension with TBUS interface, 4 N/O contacts, 1 N/C contact, 1 confirmation current path, the contacts have an off-delay (0.3 ... 3 s), Cat. 3, PL e in accordance with EN ISO 13849, plug-in terminal blocks with screw connection, width: 22.5 mm

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

Commercial data

Item number	2981732
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN01
Product key	DNA233
GTIN	4046356103695
Weight per piece (including packing)	233.9 g
Weight per piece (excluding packing)	228 g
Customs tariff number	85371098
Country of origin	DE



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Technical data

Notes

	ppl	

Note on application Only for industrial use

Product properties

Product type	Safety relays
Product family	PSRclassic
Application	Extension module
Control	1-channel
Mechanical service life	approx. 10 ⁷ cycles
Relay type	Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3

Insulation characteristics

Overvoltage category	III
Degree of pollution	2

Electrical properties

Maximum power dissipation for nominal condition	2.02 W
Nominal operating mode	100% operating factor
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	94 mA
Typical response time	20 ms
Typical release time range	0.3 s 3 s +50 % (adjustable)
Recovery time	1 s
Protective circuit	Fuse; PTC resistor
	Surge protection; Suppressor diode
Operating voltage display	Green LED
Status display	LED (green)

Output data

Contact switching type	4 delayed enabling current paths
	1 delayed signaling current path
	1 delayed confirmation current path



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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)
	3 A (N/C contact)
Maximum inrush current	6 A (N/O contact)
	3 A (N/C contact)
Inrush current, minimum	25 mA
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.	144 W (24 V DC, τ = 0 ms, N/C contact 65/66: 72 W)
	288 W (48 V DC, τ = 0 ms, N/C contact 65/66: 144 W)
	77 W (110 V DC, τ = 0 ms)
	88 W (220 V DC, τ = 0 ms)
	1500 VA (250 V AC, τ = 0 ms, N/C contact 65/66: 750 VA)
Maximum interrupting rating (inductive load)	48 W (24 V DC, τ = 40 ms)
	40 W (48 V DC, τ = 40 ms)
	35 W (110 V DC, τ = 40 ms)
	33 W (220 V DC, τ = 40 ms)
Switching power min.	0.4 W
Switching capacity (360/h cycles)	6 A (24 V DC)
	5 A (230 V AC)
Switching capacity (3600/h cycles)	3 A (24 V (DC13))
	3 A (230 V (AC15))
Output fuse	10 A gL/gG NEOZED (N/O contact)
	4 A gL/gG NEOZED (N/C contact)

Connection data

Connection technology

Screw connection
0.2 mm² 2.5 mm²
0.2 mm² 2.5 mm²
24 12
7 mm
M3

Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Material specifications



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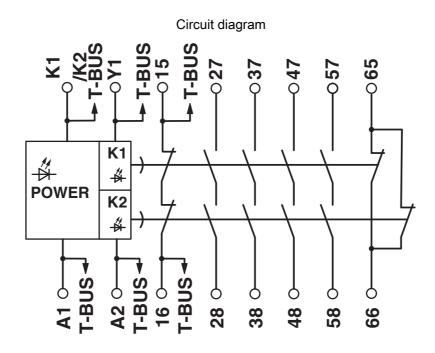
Color (Housing)	yellow (RAL 1018)
Housing material	PA
Characteristics	
Safety data	
Stop category	1
Safety data: EN ISO 13849	
Category	3 (In conjunction with suitable evaluating device)
Performance level (PL)	e (In conjunction with suitable evaluating device)
Safety data: IEC 61508 - High demand	
Safety 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
Ambient temperature (storage/transport)	-40 °C 70 °C
Maximum altitude	max. 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)
Mounting	
	DIM rail maunting
Mounting type	DIN rail mounting



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Drawings



Block diagram



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2981732



cULus Listed

Approval ID: E140324



Functional Safety
Approval ID: 968/EZ 366.05/23



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Classifications

UNSPSC 21.0

ECLASS

ECLASS-13.0		27371819
ECLASS-15.0		27371819
ECLASS-15.0 ASSE	Т	27250101
ETIM		
ETIM 9.0		EC001449
UNSPSC		

39122200



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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	34, 7(a), 7(c)-l
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	cb82a495-4de5-4c08-a704-e94a3c370246
EF3.0 Climate Change	
CO2e kg	3.363 kg CO2e

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