

2981525

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1-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 in accordance with EN ISO 13849, width: 22.5 mm, pluggable 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	2981525
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN01
Product key	DNA233
Catalog page	Page 233 (C-6-2019)
GTIN	4017918996819
Weight per piece (including packing)	233.18 g
Weight per piece (excluding packing)	168.02 g
Customs tariff number	85371098
Country of origin	DE



2981525

https://www.phoenixcontact.com/us/products/2981525

## Technical data

#### **Product properties**

Product type	Safety relays
Product family	PSRclassic
Application	Extension module
Mechanical service life	approx. 10 <sup>7</sup> 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	
Dated inculation valtage	250.1/
Rated insulation voltage Rated surge voltage/insulation	250 V 4 kV / basic isolation (safe isolation, reinforced insulation and 6

## Input data

General	
Nominal input voltage U <sub>N</sub>	24 V DC
Input voltage range in reference to $U_N$	0.85 1.1
Typical input current at U <sub>N</sub>	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
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 <sub>2</sub>
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)



### 2981525

https://www.phoenixcontact.com/us/products/2981525

Inrush current, minimum	25 mA
Sq. Total current	50 A <sup>2</sup> ( $I_{TH}^{2} = I_{1}^{2} + I_{2}^{2} + I_{3}^{2} + I_{4}^{2}$ )
Interrupting rating (ohmic load) max.	114 W (24 V DC, 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, 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 capacity 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

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 mm <sup>2</sup> 1.5 mm <sup>2</sup> (only together with CRIMPFOX 6)
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> 1.5 mm <sup>2</sup> (only together with CRIMPFOX 6)
Conductor cross-section AWG	24 16
Stripping length	8 mm

#### Dimensions

Width	22.5 mm
Height	112 mm
Depth	114.5 mm

#### Material specifications

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

### Characteristics



#### 2981525

https://www.phoenixcontact.com/us/products/2981525

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)

### Standards and regulations

Air clearances and creepage distances between the power circuits	
Standards/regulations	IEC 60664-1
Mounting	
Mounting type	DIN rail mounting
Mounting position	any



2981525

https://www.phoenixcontact.com/us/products/2981525

## Classifications

#### ECLASS

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

#### ETIM

	ETIM 9.0	EC001449		
UNSPSC				
	UNSPSC 21.0	39122200		



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## Environmental product compliance

REACh SVHC	Lead 7439-92-1
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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