

2964005

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Single-channel or two-channel contact extension, 5 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 safe isolation, width: 35 mm, pluggable Push-in terminal block

Your advantages

- · Five enabling, one signaling, and one confirmation current path
- 1- and 2-channel control
- Up to Cat. 4/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	2964005
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN01
Product key	DNA152
Catalog page	Page 232 (C-6-2019)
GTIN	4017918904739
Weight per piece (including packing)	302.38 g
Weight per piece (excluding packing)	270.18 g
Customs tariff number	85371098
Country of origin	DE



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Technical data

Product properties

Product type	Safety relays
Product family	PSRclassic
Application	Extension module
Mechanical service life	approx. 10 ⁷ cycles
Relay type	Safety relay for contact extension

Times

Typ. starting time with U _s	< 20 ms (at Us / when controlled via A11/A12)
Typical release time	< 20 ms (at Us / when controlled via A11/A12)
Recovery time	<1s

Electrical properties

Maximum power dissipation for nominal condition	15.8 W ($U_S = 26.4 \text{ V}$, $I_L^2 = 72 \text{ A}^2$, $P_{\text{Total max}} = 1.4 \text{ W} + 14.4 \text{ W}$)
Nominal operating mode	100% operating factor
Air clearances and creepage distances between the power circuits	

Air clearances and creepage distances between the power	circuits

Rated insulation voltage	250 V
Rated surge voltage/insulation	See section "Insulation coordination"

Input data

General

Rated control circuit supply voltage U _S	24 V -20 % +10 %
Power consumption at U _S	1 W (with DC)
	1.2 W (with AC)
Rated control supply current I _S	typ. 39 mA (per channel, DC)
	typ. 50 mA (per channel, AC)
Inrush current	typ. 200 mA (Δt = 2 ms at U _s , per channel)
Protective circuit	Surge protection; Varistor (40 V breakdown voltage)

Output data

Contact switching type	5 enabling current paths
	1 confirmation current path
	1 signaling current path
Contact material	$AgSnO_2$
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V AC/DC
Limiting continuous current	6 A (N/O contact)
	3 A (N/C contact 11/12)
	6 A (N/C contact 71/72)
Maximum inrush current	6 A
Inrush current, minimum	10 mA



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Switching capacity min. Switching capacity in accordance with IEC 60947-5-1 Switching capacity in accordance with IEC 60947-5-1 Output fuse 10 A gL/gG (NIO contact) 6 A gL/gG (NIO contact) 8 A gL/gG (NIO contact) 9	Sq. Total current	72 $A^2 (I_{TH}^2 = I_1^2 + I_2^2 + + I_5^2)$
Output fuse 5 A (DC13) 10 A gL/gG (N/O contact) 6 A gL/gG (N/O contact) 6 A gL/gG (N/O contact) 7 A gL/gG (N/O contact) 8 A gL/g	Switching capacity min.	50 mW
Output fuse 10 A gL/gG (N/C contact) 6 A gL/gG (N/C contact) Relay Interrupting rating (ohmic load) max. see load limit curve Connection data Connection technology pluggable yes Conductor consection Connection method Push-in connection Conductor cross section figid 0.2 mm² 1.5 mm² Conductor cross section figid 0.2 mm² 1.5 mm² Conductor cross section flexible Conductor cross section flexible Conductor cross section flexible, with ferrule without plastic sleeve Conductor cross section flexible, with ferrule without plastic sleeve Conductor cross section AWG Stripping length 8 mm gnaling Operating voltage display 2 x green LED mensions Width 35 mm Height 112 mm Depth 114.5 mm aterial specifications Color (Housing) Housing material Polyamide Darracteristics Safety data Stop category 0 Safety data: EN ISO 13849 Category 4 (In conjunction with suitable evaluating device) Performance level (PL) safety data: EC 61508 - High demand	Switching capacity in accordance with IEC 60947-5-1	3 A (AC15)
Relay Interrupting rating (ohmic load) max. see load limit curve connection data Connection technology pluggable yes Conductor connection Connection method Push-in connection Conductor cross section fixeble Conductor cross section fixeble Conductor cross section fixeble Conductor cross section fixeble, with ferrule, with plastic sleeve Conductor cross section fixeble, with ferrule without plastic sleeve Conductor cross-section fixeble, with ferrule without plastic sleeve Conductor cross-section fixeble, with ferrule without plastic sleeve Conductor cross-section AWG 24 16 Stripping length 8 mm gnalling Operating voltage display 2 x green LED mensions Width 35 mm Height 112 mm Depth 114.5 mm aterial specifications Color (Housing) Housing material Polyamide haracteristics 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)		5 A (DC13)
Interrupting rating (ohmic load) max. see load limit curve connection data Connection technology plugable 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) Stripping length 0.25 mm² 1.5 mm² (only together with CRIMPFOX 6) Stripping length 0.25 mm² 1.5 mm² (only together with CRIMPFOX 6) Width 0.35 mm Height 0.112 mm Depth 0.114.5 mm aterial specifications Color (Housing) yellow (RAL 1018) Housing material Polyamide haracteristics 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: EC 61508 - High demand	Output fuse	10 A gL/gG (N/O contact)
Interrupting rating (ohmic load) max. see load limit curve 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 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 Conductor cross-section AWG Stripping length 8 mm gnalling Operating voltage display 2 x green LED mensions Width 35 mm Height 112 mm Depth 114.5 mm aterial specifications Color (Housing) Housing material Polyamide haracteristics Safety data Stop category 0 Safety data: EN ISO 13849 Category 4 (In conjunction with suitable evaluating device) Performance level (PL) Safety data: IEC 61508 - High demand		6 A gL/gG (N/C contact)
Connection data Connection technology pluggable yes Conductor connection Connection method Push-in connection Connection method 0.2 mm² 1.5 mm² Conductor cross section flexible 0.2 mm² 1.5 mm² Conductor cross section flexible 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 0.2 4 16 Stripping length 8 mm gnalling Operating voltage display 2 x green LED mensions Width 35 mm Height 112 mm Depth 114.5 mm aterial specifications Color (Housing) yellow (RAL 1018) Housing material Polyamide haracteristics 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)	Relay	
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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) Seleeve 0.25 mm² 1.5 mm² (only together with CRIMPFOX 6) Stripping length 8 mm gnaling Operating voltage display 2 x green LED mensions Width 35 mm Height 112 mm Depth 114.5 mm aterial specifications Color (Housing) yellow (RAL 1018) Housing material Polyamide naracteristics 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)	nnection data	
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Conductor cross section rigid Conductor cross section flexible Conductor cross section, flexible, with ferrule, with plastic sleeve Conductor cross section flexible, with ferrule without plastic sleeve Conductor cross section flexible, with ferrule without plastic sleeve Conductor cross-section AWG Stripping length 8 mm gnaling Operating voltage display 2 x green LED mensions Width 35 mm Height 112 mm Depth 114.5 mm aterial specifications Color (Housing) Housing material Polyamide project data Stop category 0 Safety data: EN ISO 13849 Category Performance level (PL) Safety data: IEC 61508 - High demand	Conductor connection	
Conductor cross section flexible Conductor cross section, flexible, with ferrule, with plastic sleeve Conductor cross section flexible, with ferrule without plastic sleeve Conductor cross section flexible, with ferrule without plastic sleeve Conductor cross-section AWG 24 16 Stripping length 8 mm Gralling Operating voltage display 2 x green LED mensions Width 35 mm Height 112 mm Depth 114.5 mm aterial specifications Color (Housing) Housing material Polyamide projections Safety data: EN ISO 13849 Category Performance level (PL) Safety data: IEC 61508 - High demand		Push-in connection
Conductor cross section flexible Conductor cross section, flexible, with ferrule, with plastic sleeve Conductor cross section flexible, with ferrule without plastic sleeve Conductor cross section flexible, with ferrule without plastic sleeve Conductor cross-section AWG 24 16 Stripping length 8 mm Graphing Operating voltage display 2 x green LED Mensions Width 35 mm Height Depth 114.5 mm Aterial specifications Color (Housing) Housing material Polyamide Desafety data: EN ISO 13849 Category Performance level (PL) Safety data: IEC 61508 - High demand	Conductor cross section rigid	0.2 mm² 1.5 mm²
Conductor cross section flexible, with ferrule without plastic sleeve Conductor cross-section AWG Stripping length 8 mm gnaling Operating voltage display 2 x green LED mensions Width 35 mm Height Depth 112 mm Depth 114.5 mm atterial specifications Color (Housing) Housing material Polyamide paracteristics Safety data: EN ISO 13849 Category Operformance level (PL) Safety data: IEC 61508 - High demand		0.2 mm² 1.5 mm²
Conductor cross section flexible, with ferrule without plastic sleeve Conductor cross-section AWG Stripping length 8 mm gnaling Operating voltage display 2 x green LED mensions Width 35 mm Height Depth 112 mm Depth 114.5 mm atterial specifications Color (Housing) Housing material Polyamide maracteristics Safety data: EN ISO 13849 Category Operor with CRIMPFOX 6) 24 16 8 mm 24 16 8 mm 9 mm 14 16 8 mm 15 mm 16 mm 17 mm 17 mm 18 mm 19 polyamide 19 operor mance level (PL) Safety data: IEC 61508 - High demand	Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² 1.5 mm ² (only together with CRIMPFOX 6)
Stripping length gnaling Operating voltage display Operating voltage display 2 x green LED mensions Width 35 mm Height 112 mm Depth 114.5 mm Sterial specifications Color (Housing) Yellow (RAL 1018) Housing material Polyamide polyamide polyamide staracteristics Safety data Stop category O Category 4 (In conjunction with suitable evaluating device) Performance level (PL) Safety data: IEC 61508 - High demand	Conductor cross section flexible, with ferrule without plastic	0.25 mm ² 1.5 mm ² (only together with CRIMPFOX 6)
Operating voltage display 2 x green LED mensions Width 35 mm Height 112 mm Depth 114.5 mm aterial specifications Color (Housing) Housing material Polyamide naracteristics Safety data Stop category 0 Safety data: EN ISO 13849 Category 4 (In conjunction with suitable evaluating device) Performance level (PL) Safety data: IEC 61508 - High demand	Conductor cross-section AWG	24 16
Operating voltage display 2 x green LED mensions Width 35 mm Height 112 mm Depth 114.5 mm aterial specifications Color (Housing) Housing material Polyamide maracteristics Safety data Stop category 0 Safety data: EN ISO 13849 Category 4 (In conjunction with suitable evaluating device) Performance level (PL) Safety data: IEC 61508 - High demand	Stripping length	8 mm
Width 35 mm Height 112 mm Depth 114.5 mm aterial specifications Color (Housing) yellow (RAL 1018) Housing material Polyamide naracteristics 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	gnaling	
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Height 112 mm Depth 114.5 mm aterial specifications Color (Housing) yellow (RAL 1018) Housing material Polyamide naracteristics 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	mensions	
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Depth 114.5 mm aterial specifications Color (Housing) yellow (RAL 1018) Housing material Polyamide naracteristics 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	Height	112 mm
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Housing material Polyamide naracteristics 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	Color (Housing)	yellow (RAL 1018)
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		Polyamide
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		
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Safety data: IEC 61508 - High demand	Category	4 (In conjunction with suitable evaluating device)
	Performance level (PL)	e (In conjunction with suitable evaluating device)
	Safety data: IEC 61508 - High demand	



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Safety data: I	EC 61508 - L	ow demand
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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 70 °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, 2g

Standards and regulations

Air clearances and creepage distances between the power circuits

Standards/regulations	EN 60947-5-1

Mounting

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



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Classifications

UNSPSC 21.0

ECLASS

	FOLACO 44.0	07074040
	ECLASS-11.0	27371819
	ECLASS-13.0	27371819
	ECLASS-12.0	27371819
ETIM		
	IIVI	
	ETIM 9.0	EC001449
UNSPSC		

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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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