

2903584

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1- or 2-channel contact extension for OSSD signals (e.g., light grid), 3 N/O contacts, 1 N/C contact, up to Cat. 4 PL e in accordance with EN ISO 13849, SIL 3 in accordance with EN IEC 62061, pluggable Push-in terminal block, width: 22.5 mm

Product description

The contact extension device is specifically designed for use in conjunction with electrosensitive protective equipment such as light grids. These systems generally have clocked OSSD signals which enable cross circuits in the cabling to be detected. The relay is resistant to the test pulses generated by the electrosensitive protective equipment receiver. Applications up to PL e or SIL 3 can therefore be implemented without the need for additional traceability to the device on the EDM circuit.

Commercial data

Item number	2903584
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN01
Product key	DNA152
Catalog page	Page 232 (C-6-2019)
GTIN	4046356751704
Weight per piece (including packing)	180.07 g
Weight per piece (excluding packing)	147.56 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	Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3

Times

Typical response time	125 ms (For U _s autostart)
Typical release time	10 ms (on demand via the sensor circuit)
Recovery time	1 s (following demand of the safety function)

Electrical properties

Maximum power dissipation for nominal condition	16.44 W ($U_S = 26.4 \text{ V}$, $I_L^2 = 72 \text{ A}^2$, $P_{Total max} = 2.04 \text{ W} + 14.4 \text{ W}$)
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 and enabling current paths.)

Input data

Digital: Logic (S12, S22)

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Description of the input	safety-related
Number of inputs	2
Input voltage range "0" signal	0 V DC 5 V DC
Input voltage range "1" signal	20.4 V 26.4 V
Input current range "0" signal	0 mA 2 mA
Inrush current	max. 110 mA (typically with U_S , $\Delta t = 3$ ms)
Filter time	max. 2 ms (Test pulse width low test pulses, at 100 ms test pulse rate)
	No brightness test pulses / high test pulses permitted.
Concurrence	∞
Max. permissible overall conductor resistance	50 Ω
Protective circuit	Suppressor diode
Current consumption	38 mA (typical, at 24 V)

Output data

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

Output description	2 N/O contacts each in series, safety-related, floating
Number of outputs	3



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contact switching type	3 enabling current paths
Contact material	AgSnO ₂
Switching voltage	min. 10 V
	max. 250 V AC
witching capacity	min. 100 mW
nrush current	min. 10 mA
	max. 6 A
witching capacity in accordance with IEC 60947-5-1	5 A (AC15)
	6 A (DC13)
miting continuous current	6 A (Observe derating and load limit curve)
q. Total current	72 A ² (observe derating)
witching frequency	max. 0.5 Hz
lechanical service life	10x 10 ⁶ cycles
Output fuse	10 A gL/gG
	4 A gL/gG (for low-demand applications)
ay: Signaling current path (41/42)	
	2 N/C contacts narallel non-safety-related floating
ay: Signaling current path (41/42) Output description Iumber of outputs	2 N/C contacts parallel, non-safety-related, floating
utput description umber of outputs	
utput description umber of outputs ontact switching type	1
utput description umber of outputs ontact switching type ontact material	1 1 signaling current path
utput description umber of outputs ontact switching type ontact material	1 1 signaling current path AgSnO ₂
utput description umber of outputs ontact switching type ontact material vitching voltage	1 1 signaling current path AgSnO ₂ min. 10 V AC/DC
utput description umber of outputs ontact switching type ontact material vitching voltage	1 1 signaling current path AgSnO ₂ min. 10 V AC/DC max. 250 V AC
utput description umber of outputs ontact switching type ontact material witching voltage	1 1 signaling current path AgSnO ₂ min. 10 V AC/DC max. 250 V AC min. 100 mW
utput description umber of outputs ontact switching type ontact material vitching voltage vitching capacity rush current	1 1 signaling current path AgSnO ₂ min. 10 V AC/DC max. 250 V AC min. 100 mW min. 10 mA
utput description umber of outputs ontact switching type ontact material vitching voltage vitching capacity rush current	1 1 signaling current path AgSnO ₂ min. 10 V AC/DC max. 250 V AC min. 100 mW min. 10 mA max. 6 A
utput description umber of outputs ontact switching type ontact material vitching voltage vitching capacity rush current vitching capacity in accordance with IEC 60947-5-1	1 1 signaling current path AgSnO ₂ min. 10 V AC/DC max. 250 V AC min. 100 mW min. 10 mA max. 6 A 1.5 A (AC15)
utput description umber of outputs ontact switching type ontact material witching voltage witching capacity rush current witching capacity in accordance with IEC 60947-5-1 miting continuous current	1 1 signaling current path AgSnO ₂ min. 10 V AC/DC max. 250 V AC min. 100 mW min. 10 mA max. 6 A 1.5 A (AC15) 2 A (DC13)
utput description umber of outputs ontact switching type ontact material witching voltage witching capacity urush current witching capacity in accordance with IEC 60947-5-1 miting continuous current q. Total current	1 1 signaling current path AgSnO ₂ min. 10 V AC/DC max. 250 V AC min. 100 mW min. 10 mA max. 6 A 1.5 A (AC15) 2 A (DC13) 6 A
Output description	1 1 signaling current path AgSnO ₂ min. 10 V AC/DC max. 250 V AC min. 100 mW min. 10 mA max. 6 A 1.5 A (AC15) 2 A (DC13) 6 A 36 A ²

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 mm ² 1.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² 1.5 mm ² (only together with CRIMPFOX 6)
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² 1.5 mm ² (only together with CRIMPFOX 6)



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Conductor cross-section AWG	24 16
Stripping length	8 mm
Cianalina	
Signaling	
Status display	2 x green LEDs
Dimensions	
Width	22.5 mm
Height	117.5 mm
Depth	114.5 mm
Material specifications	
Color (Housing)	yellow (RAL 1018)
Housing material	Polyamide
Safety data Stop category	0
Safety data: EN ISO 13849	
Category	4
Performance level (PL)	e (5 A DC13; 5 A AC15; 8760 switching cycles/year)
Safety data: IEC 61508 - High demand	
Safety Integrity Level (SIL)	3
Safety data: IEC 61508 - Low demand	
Safety Integrity Level (SIL)	3
Safety data: EN IEC 62061	
Safety Integrity Level (SIL)	3
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	≤ 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



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CE	
Identification	CE-compliant
Standards and regulations	
Air clearances and creepage distances between the power circuits	
Standards/regulations	DIN EN 60947-1
Mounting	
Mounting type	DIN rail mounting
Mounting position	vertical or horizontal



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Classifications

UNSPSC 21.0

ECLASS

	ECLASS-11.0	27371819	
	ECLASS-13.0	27371819	
	ECLASS-12.0	27371819	
ETIM			
	ETIM 9.0	EC001449	
UNSPSC			

39122200



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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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