

MINI MCR-SL-NAM-2RNO-SP - Switching amplifier



2810269

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NAMUR switching amplifier for proximity sensors, can be configured, floating switching contacts and switching contacts with a resistance circuit. Output-side 2 N/O contact, with spring-cage connection, can be configured. Replacement part: 2902005 MINI MCR-2-NAM-2RO-PT.

Your advantages

- Floating contacts and contacts with resistance circuit can be connected
- Power supply possible via the foot element (TBUS)
- Highly compact isolation amplifier for electrical isolation, amplification, and duplication of proximity sensor signals
- For proximity sensors according to IEC 60947-5-6 and EN 50227
- Error indication via diagnostic LED and analog signal
- Second output can be used as a duplicator or error signaling output
- N/O contacts at output
- Input and output signals can be configured via DIP switches
- 3-way isolation
- Operating current/closed circuit current switch-over (inverted switching behavior)

Commercial data

Item number	2810269
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C403
Product key	DK1133
GTIN	4017918996086
Weight per piece (including packing)	93.8 g
Weight per piece (excluding packing)	63.9 g
Customs tariff number	85437090
Country of origin	DE

Technical data

Product properties

Product type	Isolating switch amplifier
Product family	MINI Analog
No. of channels	1

Insulation characteristics

Overvoltage category	II
Pollution degree	2

Electrical properties

Rated insulation voltage	150 V AC (Input/relay outputs (reinforced insulation))
	150 V AC (Supply/relay outputs (reinforced insulation))
	150 V AC (Relay output 1/relay output 2 (reinforced insulation))
	30 V AC (Input/supply)
	50 V DC (Input/supply)
Electrical isolation	Reinforced insulation in accordance with EN 61010-1
Electrical isolation between input and output	yes
Test voltage, input/output/supply	1.5 kV AC (50 Hz, 60 s)

Supply

Designation	Supply
Nominal supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC
Max. current consumption	< 25 mA
Power consumption	< 600 mW

Input data

Signal: NAMUR

Number of inputs	1
Available input sources	NAMUR proximity sensors (IEC/EN 60947-5-6)
	floating switch contacts
	Switch contacts with resistance circuit
Switching threshold "0" signal current	< 1.2 mA (blocking)
Switching threshold "1" signal, current	> 2.1 mA (conductive)
Line fault detection	> 6 mA (Short circuit)
	< 0.35 mA (Line break)
	Activated /deactivated via DIP switch
Open-circuit voltage	8.2 V DC \pm 10 %

Output data

Switching:

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Maximum switching voltage	250 V AC
	125 V DC
	150 V AC (UL)
	125 V DC (UL)

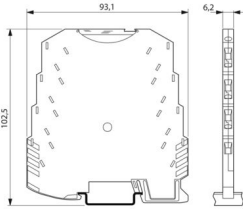
Signal

Number of outputs	2
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Connection data

Connection method	Spring-cage connection
Stripping length	8 mm
Conductor cross-section rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section AWG	24 ... 12

Dimensions

Dimensional drawing	
Width	6.2 mm
Height	93.1 mm
Depth	102.5 mm

Material specifications

Color	green (RAL 6021)
Housing material	PBT
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 2

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m
Permissible humidity (operation)	5 % ... 95 % (non-condensing)

Approvals

CE

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Certificate	CE-compliant
ATEX	
Identification	Ⓜ II 3 G Ex nA nC IIC T4 Gc X
UL, USA/Canada	
Identification	UL 508 Recognized Class I, Div. 2, Groups A, B, C, D T4
Shipbuilding approval	
Identification	BBBAA
Certificate	DNV GL TAA00000N1

EMC data

Electromagnetic compatibility	Conformance with EMC directive
Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal deviations.

Noise emission

Standards/regulations	EN 61000-6-4
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Electromagnetic HF field

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Evaluation criterion	A

Fast transients (burst)

Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Evaluation criterion	A

Conducted interference

Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Evaluation criterion	A

Standards and regulations

Electrical isolation	Reinforced insulation in accordance with EN 61010-1
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Mounting

Mounting type	DIN rail mounting
Mounting position	any

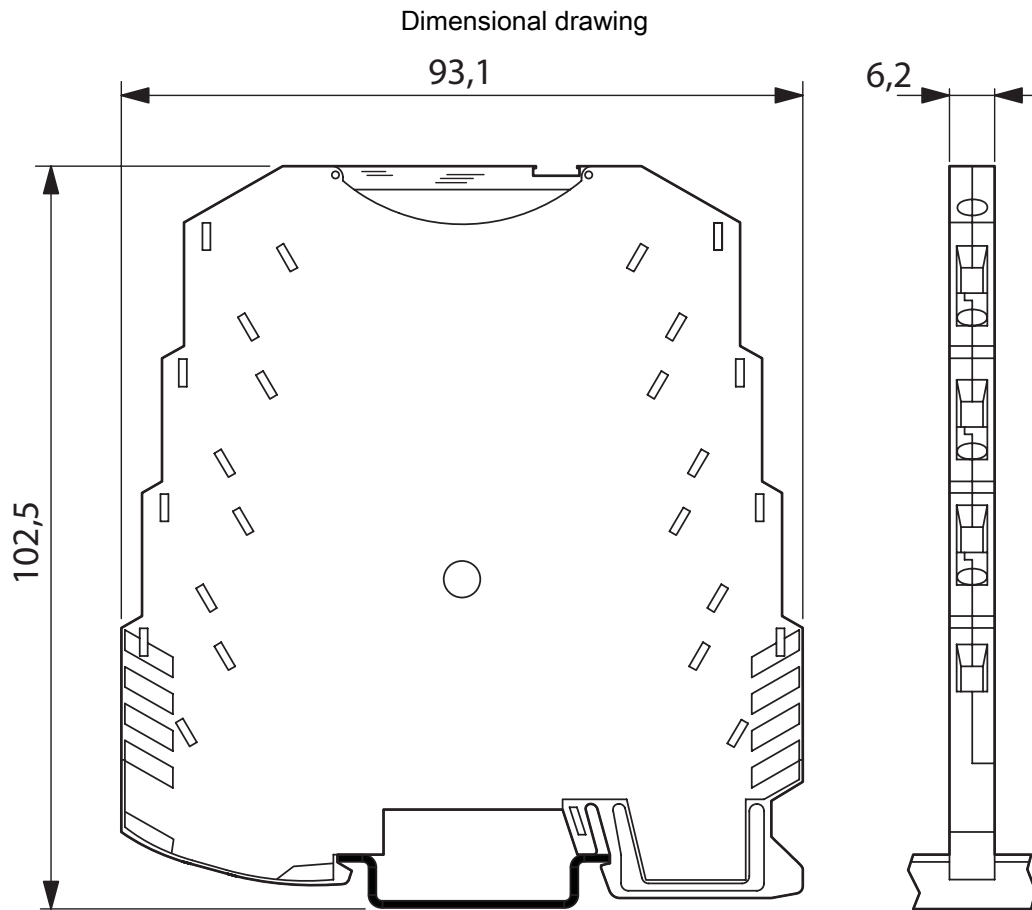
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Drawings



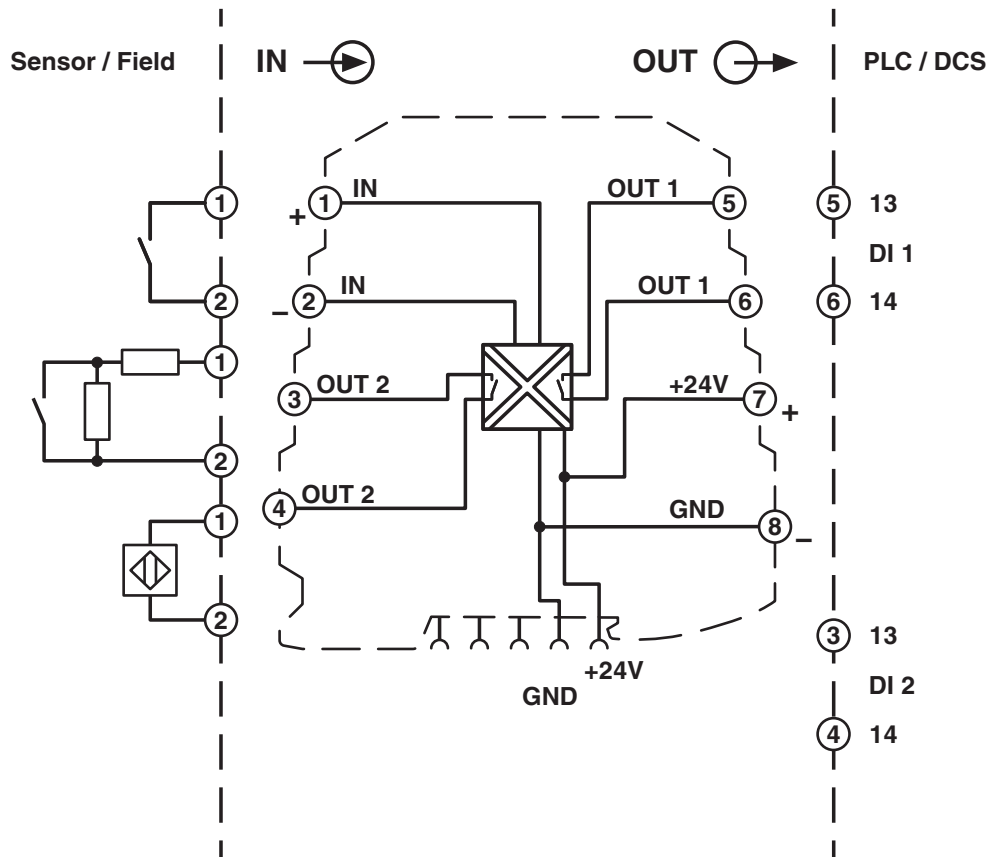
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Block diagram



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Environmental product compliance

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.)	No substance above 0.1 wt%
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