

Signal isolator - PI-EX-NAM/RNC-NE - 2835367

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Ex-i binary input: NAMUR isolation amplifiers. For operating proximity sensors and switches in Ex areas. The binary signals are transmitted to a safe area. Relay output (N/C contact), line fault detection. Galvanic 3-way isolation.



Key commercial data

Packing unit	1 PCE
Weight per Piece (excluding packing)	96.7 GRM
Custom tariff number	85437090
Country of origin	Germany

Technical data

Note:

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	12.4 mm
Height	145 mm
Depth	147 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C (vertical assembly)
	-20 °C ... 55 °C (horizontal assembly)
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Permissible humidity (operation)	5 % ... 95 % (relative humidity, no condensation)
Noise immunity	EN 61326:1997

Input data

Control current circuit	Intrinsically safe
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Signal isolator - PI-EX-NAM/RNC-NE - 2835367

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Input data

Available input sources	NAMUR proximity sensors
	Floating switch contacts
	Switch contacts with resistance circuit
Non-load voltage	8.2 V DC \pm 10 %
Switching points (attenuated)	< 1.2 mA (attenuated in acc. with EN 60947-5-6)
Switching points (unattenuated)	> 2.1 mA (non-attenuated in acc. with EN 60947-5-6)
Line error detection	Activated /deactivated via DIP switch

Output data

Switching output	Relay output
Configurable/programmable	Switching behavior can be inverted via DIP switch
Contact type	N/C contact
Contact material	AgSnO, hard gold-plated
Limiting continuous current	1 A (30 V DC)
	0.5 A (125 V AC)
Min. contact current	1 mA
Mechanical service life	10 ⁷ cycles
Service life, electrical	2 x 10 ⁵ cycles with full load

Power supply

Supply voltage range	20 V DC ... 30 V DC
Max. current consumption	max. 40 mA
Power consumption	max. 0.8 W (24 V)

General

No. of channels	1
Test voltage input/output	1.5 kV AC
Insulation voltage input/output/supply	0.25 kV _{rms}
Status display	Green LED (supply voltage)
	Yellow LED (status display)
	Red LED (line errors)
Inflammability class according to UL 94	V0
Electromagnetic compatibility	Conformance with EMC directive 89/336/EC
Emitted interference	EN 61326:1997
Housing material	Polyamide PA non-reinforced
Color	green

Safety data

Max. output voltage U _o	10.6 V
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Signal isolator - PI-EX-NAM/RNC-NE - 2835367

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Safety data

Max. output current I_o	33 mA
Max. output power P_o	86 mW
Gas group	IIA
Max. external inductivity L_o	230 mH
Max. external capacity C_o	72.9 μ F
Gas group	IIB
Max. external inductivity L_o	110 mH
Max. external capacity C_o	16.2 μ F
Gas group	IIC
Max. external inductivity L_o	30 mH
Max. external capacity C_o	2.3 μ F
EEX specification	[EEx ia] IIC, EX II (1)GD, KEMA 00 ATEX 1126

Classifications

eCl@ss

eCl@ss 4.0	27210121
eCl@ss 4.1	27210121
eCl@ss 5.0	27210121
eCl@ss 5.1	27210121
eCl@ss 6.0	27210121
eCl@ss 7.0	27210121
eCl@ss 8.0	27210121

ETIM

ETIM 2.0	EC001430
ETIM 3.0	EC001599
ETIM 4.0	EC001599
ETIM 5.0	EC001599

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008

Signal isolator - PI-EX-NAM/RNC-NE - 2835367

Approvals

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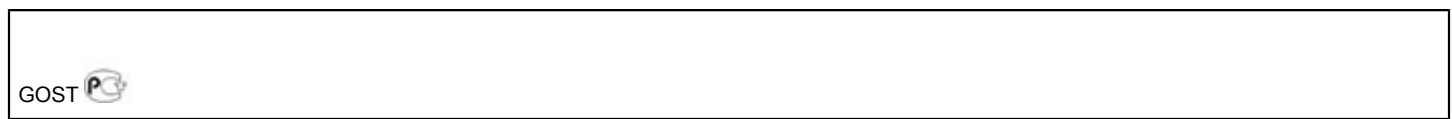
GOST

Ex Approvals

ATEX

Approvals submitted

Approval details



Accessories

Additional products

Basic terminal block - PI-EX-TB - 2835901



Ex base terminal block for intrinsically safe signals with knife disconnection and test connections

Surge protection device - TT-PI-EX-TB - 2858386



Intrinsically safe basic terminal block with isolating connector, test connections and surge protection, for mounting on NS 35/7.5

Signal isolator - PI-EX-NAM/RNC-NE - 2835367

Accessories

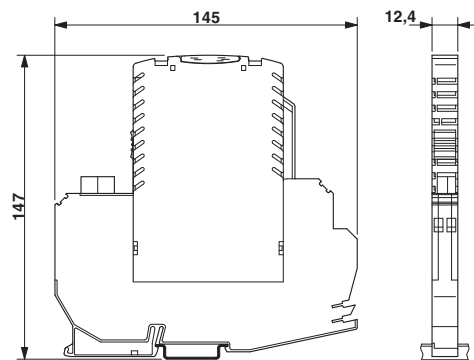
Basic terminal block - PI-EX-ES-1/3 - 2835325



Ex basic terminal block, with three terminal points to the field level (Ex area)

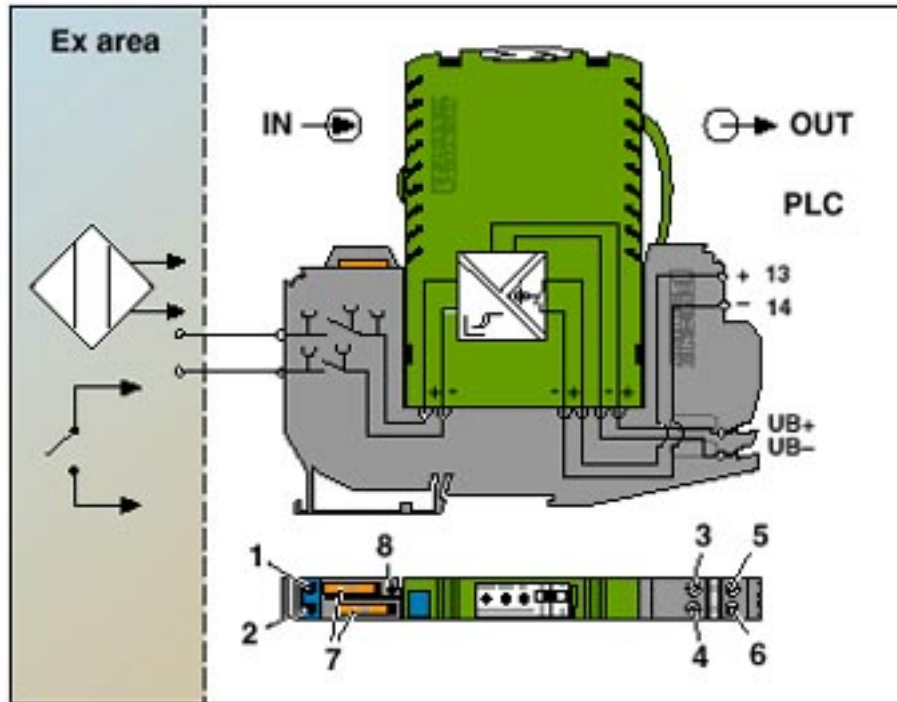
Drawings

Dimensioned drawing



Signal isolator - PI-EX-NAM/RNC-NE - 2835367

Circuit diagram



- 1 ≙ input "+"
(Clamping screw with integrated female test connector)
- 2 ≙ input "-"
(Clamping screw with integrated female test connector)
- 3 ≙ Output
- 4 ≙ Output
- 5 ≙ U_{B+} / supply "+" 20...35 V DC
- 6 ≙ U_{B-} / supply "-"
- 7 ≙ Disconnect knife with integrated female test connector
- 8 ≙ Female test connector