

## 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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## Technical data

### 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 <sup>7</sup> cycles
Service life, electrical	2 x 10 <sup>5</sup> 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 <sub>rms</sub>
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 <sub>o</sub>	10.6 V
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## Technical data

### 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 $\mu$ F
Gas group	IIB
Max. external inductivity $L_o$	110 mH
Max. external capacity $C_o$	16.2 $\mu$ F
Gas group	IIC
Max. external inductivity $L_o$	30 mH
Max. external capacity $C_o$	2.3 $\mu$ 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

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### Approvals

#### Approvals

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Approvals

GOST

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Ex Approvals

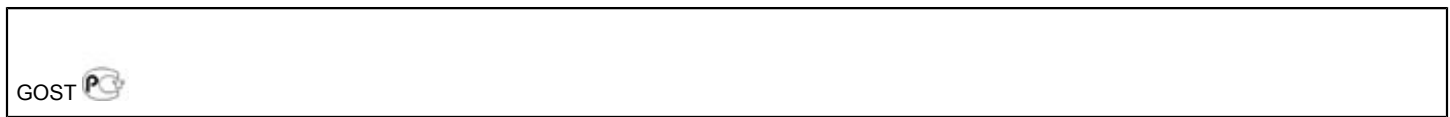
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Approvals submitted

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#### 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

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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

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## Accessories

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

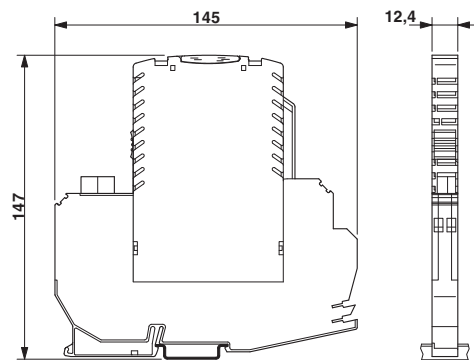


Ex basic terminal block, with three terminal points to the field level (Ex area)

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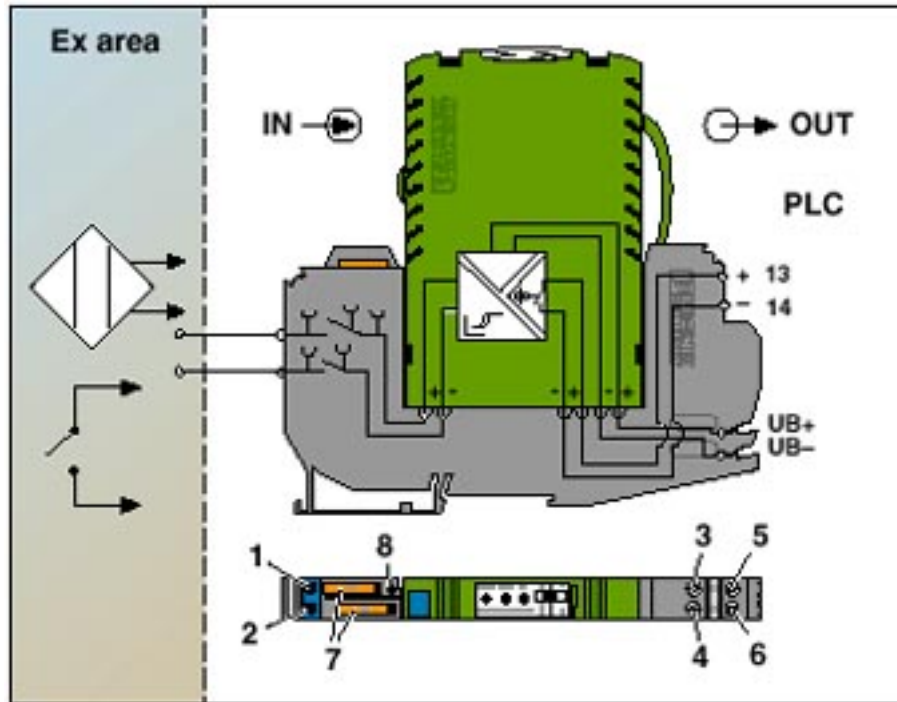
## Drawings

Dimensioned drawing



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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