

# PI-EX-NAM/TO-P - Signal isolator



2865117

<https://www.phoenixcontact.com/us/products/2865117>

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

## Commercial data

Item number	2865117
Packing unit	1 pc
Sales key	C430
Product key	CK3831
Catalog page	Page 460 (IF-2009)
GTIN	4017918961541
Weight per piece (including packing)	98.4 g
Weight per piece (excluding packing)	98.4 g
Customs tariff number	85365019
Country of origin	DE

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## Technical data

### Notes

General	The electronics module is plugged into a basic terminal block.
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### Product properties

Product type	Isolating switch transf.
Application	Digital IN

### Electrical properties

Electrical isolation	3-way isolation
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#### Electrical isolation Input/output

Electrical isolation	375 V (Peak value as per EN 50020 / EN 60079-11)
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#### Electrical isolation Input/power supply

Electrical isolation	375 V (Peak value as per EN 50020 / EN 60079-11)
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#### Electrical isolation Output/supply

Test voltage	1.5 kV AC (50 Hz, 60 s)
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### Supply

Supply voltage range	20 V DC ... 30 V DC
Max. current consumption	25 mA
Power consumption	max. 0.6 W (24 V)

## Input data

### Signal: NAMUR

Description of the input	Intrinsically safe
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	< 0.05 mA (Line break) 100 Ω ... 360 Ω (Short circuit) can be enabled/disabled via switch
Non-load voltage	8.2 V DC ±10 %

## Output data

### Switching: Transistor

Configurable/programmable	Can be inverted via slide switch
Continuous load current	100 mA (short-circuit-proof)
Auxiliary voltage	10 V DC ... 30 V DC

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## Signal

Number of outputs	1
Switching behavior	Can be inverted via slide switch
Switching frequency	max. 2 kHz (DC)

## Connection data

Connection method	Screw connection
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## Ex data

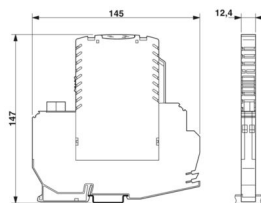
### Safety data

Max. output voltage $U_o$	10.6 V
Max. output current $I_o$	33 mA
Max. output power $P_o$	86 mW
Safety-related maximum voltage $U_m$	250 V AC
IIA: Max. external inductivity $L_o$ / Max. external capacitance $C_o$	230 mH / 72 $\mu$ F
IIB: Max. external inductivity $L_o$ / Max. external capacitance $C_o$	110 mH / 16.2 $\mu$ F
IIC: Max. external inductivity $L_o$ / Max. external capacitance $C_o$	30 mH / 2.3 $\mu$ F

## Signaling

Status display	Green LED (supply voltage)
	Yellow LED (status display)
	Red LED (line errors)

## Dimensions

Dimensional drawing	
Width	12.4 mm
Height	79 mm
Depth	118.4 mm

## Material specifications

Color	green (RAL 6021)
Flammability rating according to UL 94	V0
Housing material	PBT and polyamide PA non-reinforced

## Characteristics

Safety data: IEC 61508 - Low demand

Safety Integrity Level (SIL)	2
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## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	max. -20 °C ... 60 °C (see data sheet)
Ambient temperature (storage/transport)	-40 °C ... 85 °C

## Approvals

### CE

Certificate	CE-compliant
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### ATEX

Identification	⊕ II (1) G [Ex ia Ga] IIC
	⊕ II (1) D [Ex ia Da] IIIC
	⊕ II 3 G Ex nA IIC T4 Gc
Certificate	PxCIF07ATEX2835341X

### UL, USA/Canada

Identification	applied for
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### Safety Integrity Level (SIL, IEC 61508)

Identification	2
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### EAC Ex

Identification	Ex [Ex ia Ga] IIC
Certificate	RU C-DE.AB72.B.00097/19

## Standards and regulations

Electrical isolation	3-way isolation
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### Standards

Standards/regulations	NAMUR recommendation NE 21
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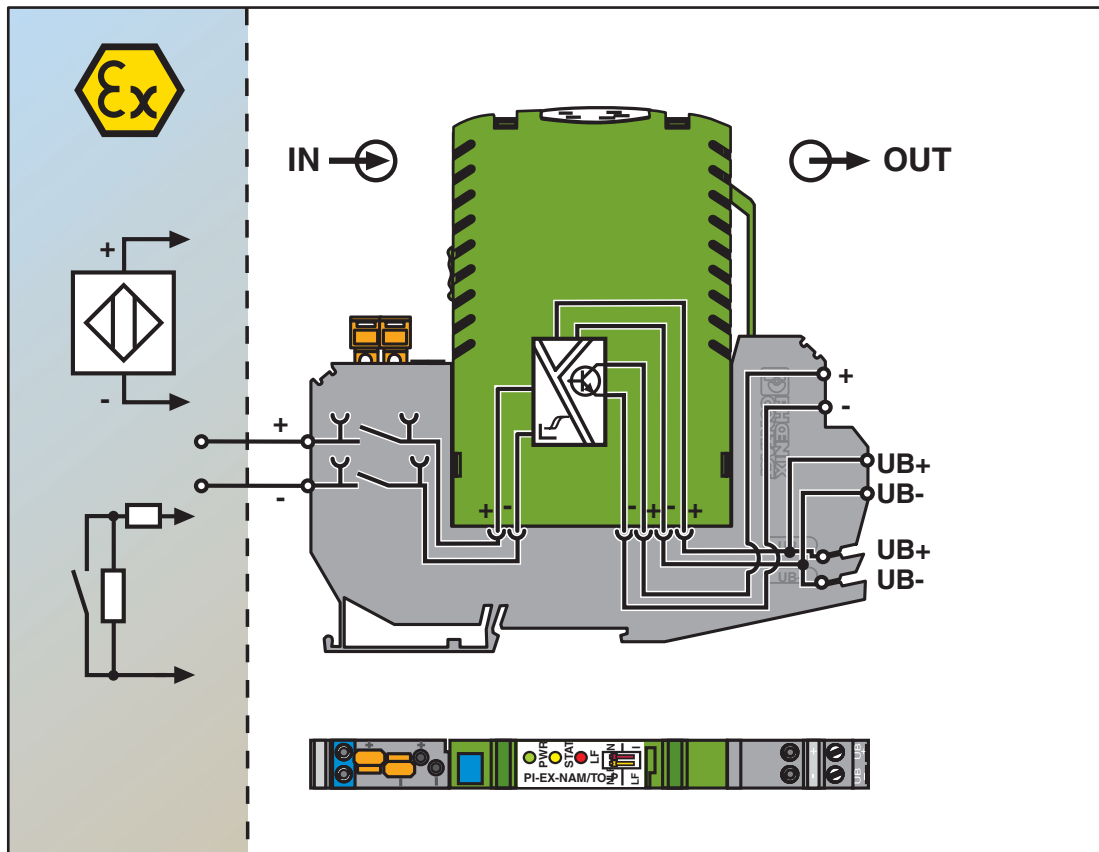
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## Drawings

Block diagram



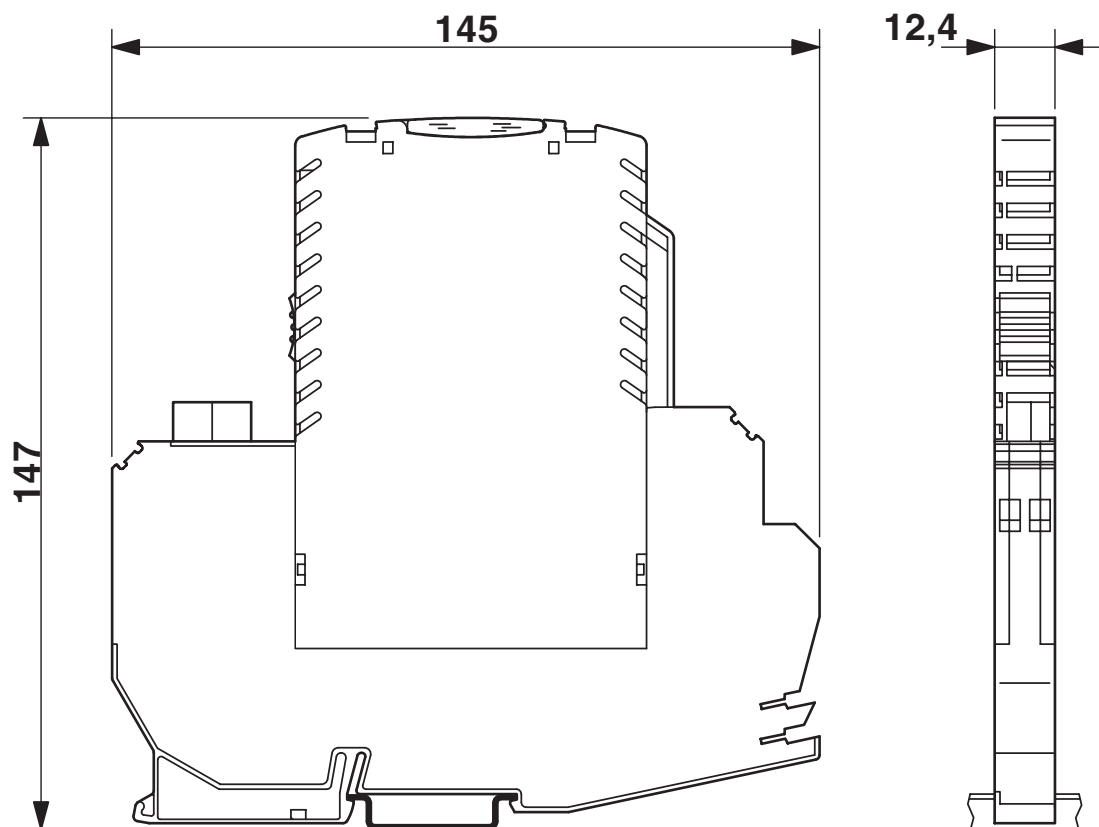
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Dimensional drawing



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## Classifications

### ECLASS

ECLASS-11.0	27210121
ECLASS-12.0	27210121
ECLASS-13.0	27210121

### ETIM

ETIM 9.0	EC001485
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### UNSPSC

UNSPSC 21.0	39121000
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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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## Accessories

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

2858386

<https://www.phoenixcontact.com/us/products/2858386>



Intrinsically safe basic terminal block with isolating plugs, test pick-offs, and surge protection, for mounting on NS 35/7,5

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

2835325

<https://www.phoenixcontact.com/us/products/2835325>



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

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