

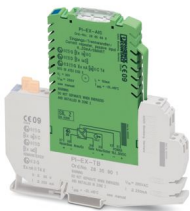
PI-EX-AIS - Input signal conditioner



2865696

<https://www.phoenixcontact.com/us/products/2865696>

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Ex i analog input: input signal conditioner, HART-transparent. Transmits 4 mA ... 20 mA signals from externally supplied measuring transducers installed in the Ex area to a load in the safe area. 3-way electrical isolation (input/output/supply).

Commercial data

Item number	2865696
Packing unit	1 pc
Sales key	C430
Product key	CK3811
Catalog page	Page 265 (NTK-2010)
GTIN	4046356483605
Weight per piece (including packing)	96.3 g
Weight per piece (excluding packing)	93.9 g
Customs tariff number	85437090
Country of origin	DE

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Technical data

Product properties

Product type	Signal conditioner
Application	Analog IN
No. of channels	1

Insulation characteristics

Overvoltage category	II
Pollution degree	2

Electrical properties

Electrical isolation	3-way isolation
Electrical isolation between input and output	yes
Step response (10-90%)	< 600 µs (for 4 mA ... 20 mA step)
Maximum temperature coefficient	< 0.01 %/K
Maximum transmission error	< 0.2 % (of final value)
Transmission error, typical	< 0.1 % (of final value)

Electrical isolation Input/output/power supply

Rated insulation voltage	300 V _{rms}
Test voltage	2.5 kV AC (50 Hz, 60 s)
Insulation	Safe isolation in accordance with IEC/EN 61010-1

Electrical isolation Input/output

Electrical isolation	375 V (Peak value in accordance with IEC/EN 60079-11)
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Electrical isolation Input/power supply

Electrical isolation	375 V (Peak value in accordance with IEC/EN 60079-11)
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Supply

Supply voltage range	19.2 V DC ... 30 V DC
Max. current consumption	< 36 mA (at 24 V)
Power dissipation	< 0.9 W (at 24 V DC / 20 mA)

Input data

Signal: Current

Description of the input	Intrinsically safe
Number of inputs	1
Current input signal	0 mA ... 20 mA 4 mA ... 20 mA
Voltage drop	< 3.5 V

Output data

Signal: Current

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Number of outputs	1
Current output signal	0 mA ... 20 mA (active)
	4 mA ... 20 mA (active)
	0 mA ... 20 mA (14 ... 26 V ext. source voltage)
	4 mA ... 20 mA (14 ... 26 V ext. source voltage)
Load/output load current output	≤ 600 Ω (at 20 mA)
	< 525 Ω (at 22.5 mA)
Output ripple	< 20 mV _{rms}
Output behavior in the event of an error	0 mA (Cable break in the input)
	0 mA (Cable short-circuit in the input)

Ex data

Safety data	
Max. voltage U _i	30 V
Max. current I _i	150 mA
Max. inductance L _i	negligible
Max. capacitance C _i	Negligible
Safety-related maximum voltage U _m	253 V AC

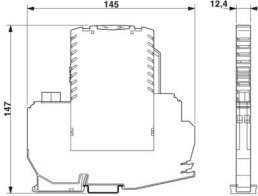
Interfaces

Data communication (bypass)	
HART function	Yes
Protocols supported	HART-transparent

Signaling

Status display	LED supply voltage, PWR (green)
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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

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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)

Approvals

CE

Certificate	CE-compliant
Note	and EN 61326

ATEX

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

Safety Integrity Level (SIL, IEC 61508)

Identification	2
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EAC Ex

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

Standards and regulations

Electrical isolation	3-way isolation
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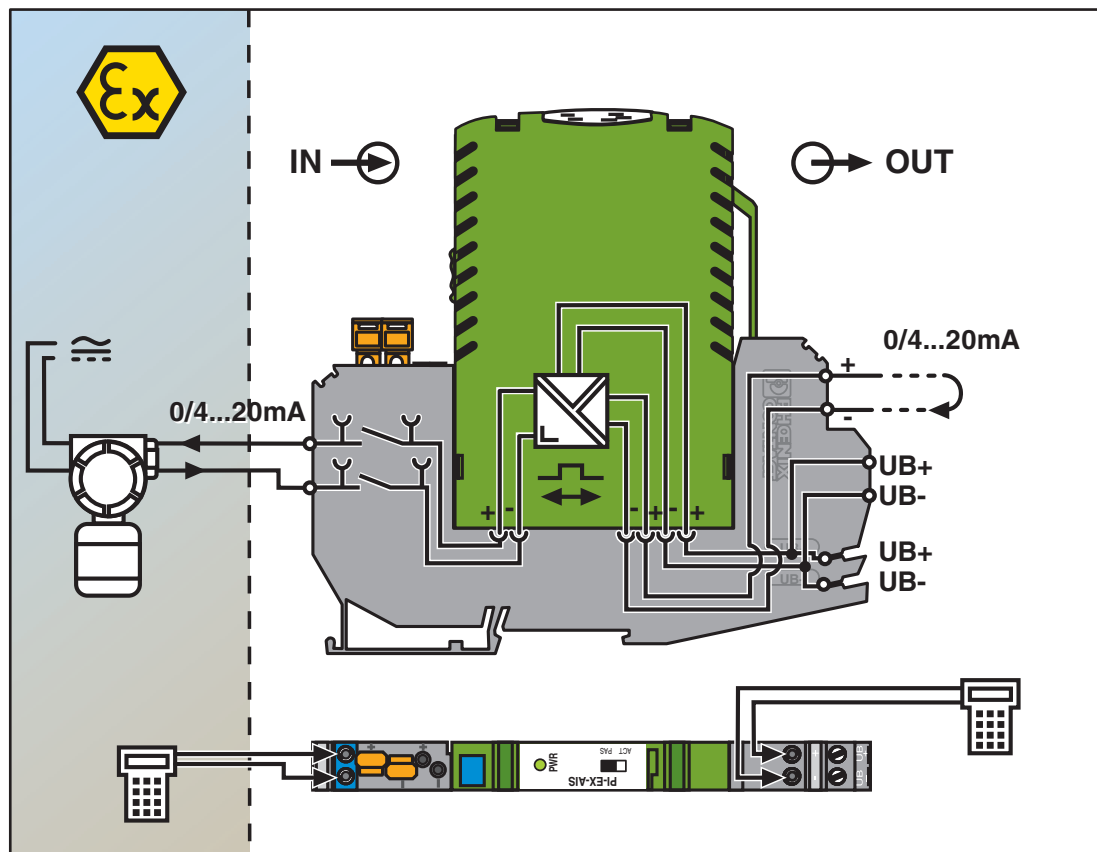
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Drawings

Block diagram



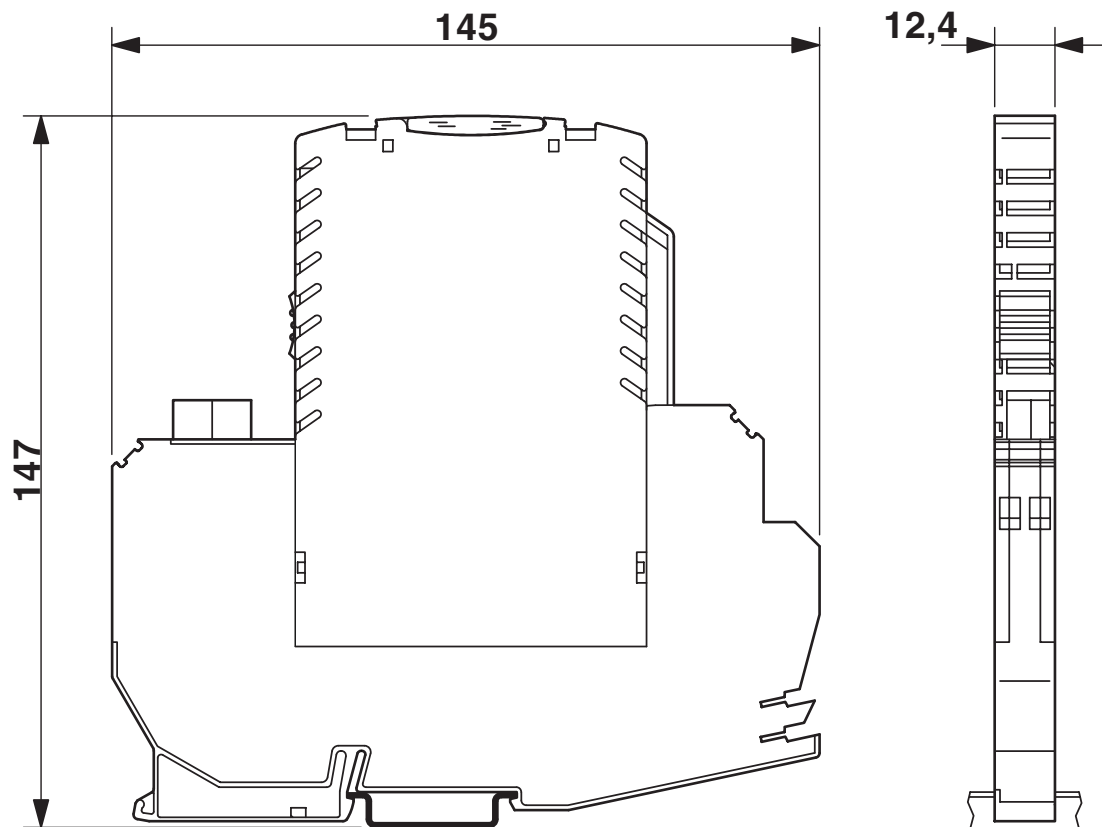
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Dimensional drawing



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Classifications

ECLASS

ECLASS-11.0	27210120
ECLASS-12.0	27210120
ECLASS-13.0	27210120

ETIM

ETIM 9.0	EC002653
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UNSPSC

UNSPSC 21.0	39121000
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I
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.)	Lead(CAS: 7439-92-1)

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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

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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