

PI-EX-IDS-I/I - Signal isolator



2835613

<https://www.phoenixcontact.com/us/products/2835613>

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Ex i output signal conditioner, HART-transparent. Isolates and transmits intrinsically safe 0/4 mA ... 20 mA signals to a load (I/P converters, regulating valves, displays) in the Ex area. 3-way electrical isolation (input/output/supply). Line fault detection.

Commercial data

Item number	2835613
Packing unit	1 pc
Sales key	C430
Product key	CK3812
Catalog page	Page 456 (IF-2009)
GTIN	4017918934149
Weight per piece (including packing)	119 g
Weight per piece (excluding packing)	113.4 g
Customs tariff number	85437090
Country of origin	DE

Technical data

Notes

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

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

Electrical properties

Electrical isolation	3-way isolation
Electrical isolation between input and output	yes
Maximum power dissipation for nominal condition	< 1.2 W
Step response (10-90%)	< 140 µs
Maximum temperature coefficient	< 0.01 %/K
Maximum transmission error	≤ 0.1 % (Of end value (at 20°C))

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

Test voltage	1.5 kV AC (50 Hz, 60 s)
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Electrical isolation Output/supply

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

Supply voltage range	20 V DC ... 35 V DC
Max. current consumption	< 15 mA (At 24 V DC / 0 mA) < 48 mA (at 24 V DC / 20 mA)
Power consumption	max. 1.2 W (At 24 V DC / 20 mA)

Input data

Signal: Current

Number of inputs	1
Current input signal	4 mA ... 20 mA 0 mA ... 20 mA

Output data

Signal

Output description	intrinsically safe
Number of outputs	1
Current output signal	4 mA ... 20 mA 0 mA ... 20 mA

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Load/output load current output	$\leq 800 \Omega$
Output ripple (current)	$< 50 \mu A_{PP}$ (For 800Ω)

Connection data

Connection method	Screw connection
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Ex data

Safety data

Max. inductance L_i	0.1 mH
Max. capacitance C_i	5 nF
Max. output voltage U_o	27.7 V
Max. output current I_o	92 mA
Max. output power P_o	638 mW
Safety-related maximum voltage U_m	250 V AC
IIB (The maximum values should be used either solely as concentrated capacitance values or solely as concentrated inductance values, or as cable reactance values): Max. external inductivity L_o / Max. external capacitance C_o	15 mH / 658 nF
IIB (The maximum values should also be used as concentrated capacitance values and concentrated inductance values.): Max. external inductivity L_o / Max. external capacitance C_o	1.9 mH / 295 nF

Safety data

IIC (The maximum values should be used either solely as concentrated capacitance values or solely as concentrated inductance values, or as cable reactance values): Max. external inductivity L_o / Max. external capacitance C_o	1.2 mH / 80 nF
IIC (The maximum values should also be used as concentrated capacitance values and concentrated inductance values.): Max. external inductivity L_o / Max. external capacitance C_o	0.4 mH / 64 nF

Interfaces

Data communication (bypass)

HART function	Yes
Protocols supported	HART-transparent

Signaling

Status display	Green LED (supply voltage, PWR)
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Dimensions

Dimensional drawing	
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Width	12.4 mm
Height	145 mm
Depth	147 mm

Material specifications

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

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 55 °C (see data sheet)
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)

Approvals

CE

Certificate	CE-compliant
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ATEX

Identification	Ex II (1) G [Ex ia Ga] IIC
	Ex II (1) D [Ex ia Da] IIIC
	Ex II 3 G Ex nA IIC T4 Gc
Certificate	PxCIF07ATEX2835613X

UL, USA/Canada

Identification	applied for
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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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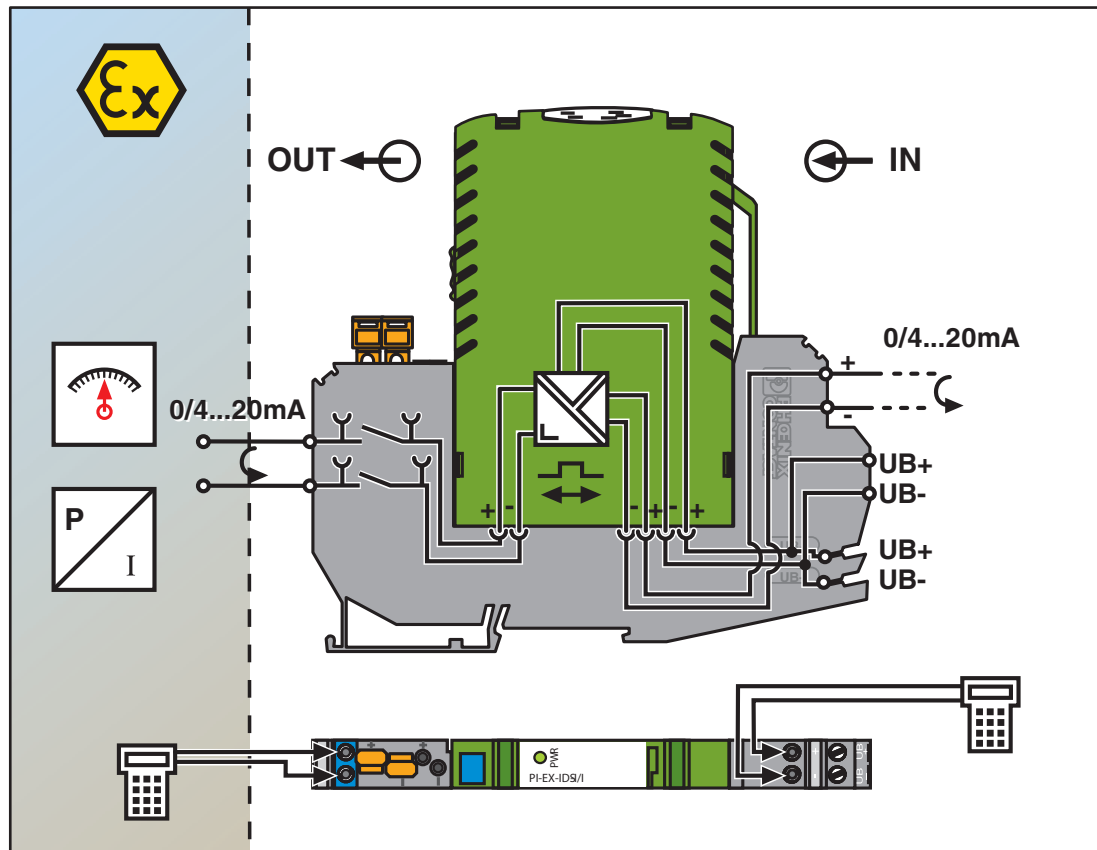
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Drawings

Block diagram



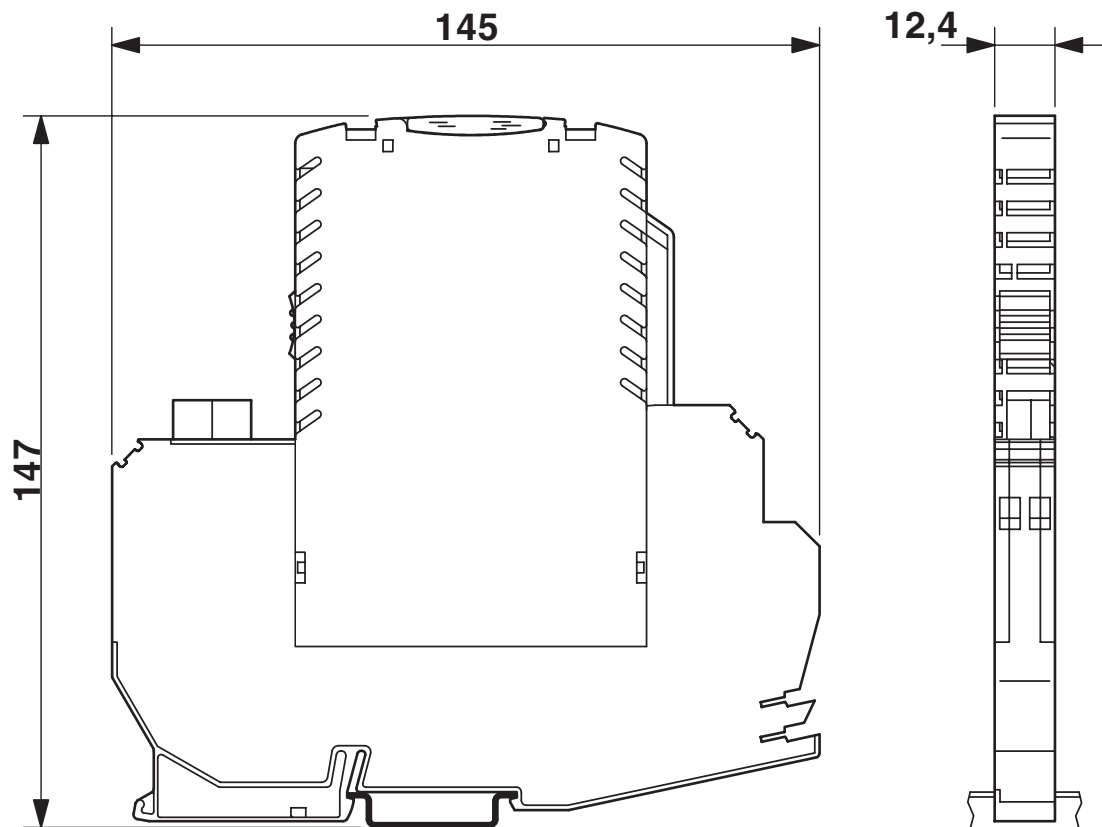
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Dimensional drawing



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Classifications

ECLASS

ECLASS-11.0	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

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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