

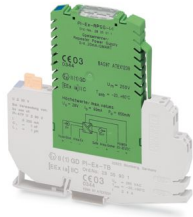
PI-EX-RPSS-I/I - Signal isolator



2835011

<https://www.phoenixcontact.com/us/products/2835011>

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Ex i analog input: Repeater power supply, HART. Feeds intrinsically safe 2- or 3-conductor measuring transducers installed in an Ex area and transmits the 4-20 mA signal to a load in a safe area. Galvanic 3-way isolation (input / output / supply).

Commercial data

Item number	2835011
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C430
Product key	DK1XXX
GTIN	4017918148027
Weight per piece (including packing)	100.2 g
Weight per piece (excluding packing)	99.5 g
Customs tariff number	85438995
Country of origin	GB

Technical data

Notes

Order information:	The electronics module is plugged into a basic terminal block.
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Product properties

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

Electrical properties

Step response (10-90%)	< 40 μ s
Maximum temperature coefficient	< 0.005 %/K
Maximum transmission error	\leq 0.05 % (Of end value (at 20°C))

Electrical isolation Input/output

Electrical isolation	375 V (Peak value, in acc. with EN 50020)
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Electrical isolation Input/power supply

Electrical isolation	375 V (Peak value, in acc. with EN 50020)
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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 ... 35 V DC
Max. current consumption	75 mA (at 24 V)
Power dissipation	max. 1.3 W (at 24 V)

Input data

Signal

Description of the input	Current input, intrinsically safe
Available input sources	2-conductor measuring transducer 4...20 mA
	3-conductor measuring transducer 4 ... 20 mA
	Active, fed from the field side, 0/4...20 mA signals
Current input signal	4 mA ... 20 mA
Transmitter supply voltage	16.5 V (at 20 mA)
Transmitter supply current	\leq 24 mA

Output data

Signal

Output description	Current output
Current output signal	4 mA ... 20 mA
Output current with short-circuit	approx. 40 mA (Current limitation)
Output current with wire break	0 mA

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Load/output load current output	$\leq 600 \Omega$
Output resistor	$> 2 M\Omega$
Output ripple (current)	$< 40 \mu A_{pp}$ (For 600Ω)

Ex data

Safety data

Max. output voltage U_o	28 V
Max. output current I_o	93 mA
Max. output power P_o	650 W
Safety-related maximum voltage U_m	250 V AC
IIA: Max. external inductivity L_o / Max. external capacitance C_o	36.02 mH / 2.15 μF
IIB: Max. external inductivity L_o / Max. external capacitance C_o	17.72 mH / 0.65 μF
IIC: Max. external inductivity L_o / Max. external capacitance C_o	4.3 mH / 0.083 μF

Interfaces

Data communication (bypass)

HART function	Yes
Protocols supported	HART, Honeywell DE, Foxboro (others on request)

Signaling

Status display	Green LED (supply voltage)
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Dimensions

Dimensional drawing	
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)	max. $-20 \text{ }^\circ\text{C}$... $60 \text{ }^\circ\text{C}$ (see data sheet)

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Ambient temperature (storage/transport)	-40 °C ... 80 °C
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Approvals

CE

Certificate	CE-compliant
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ATEX

Identification	Ⓜ II (1) GD [EEx ia] IIC
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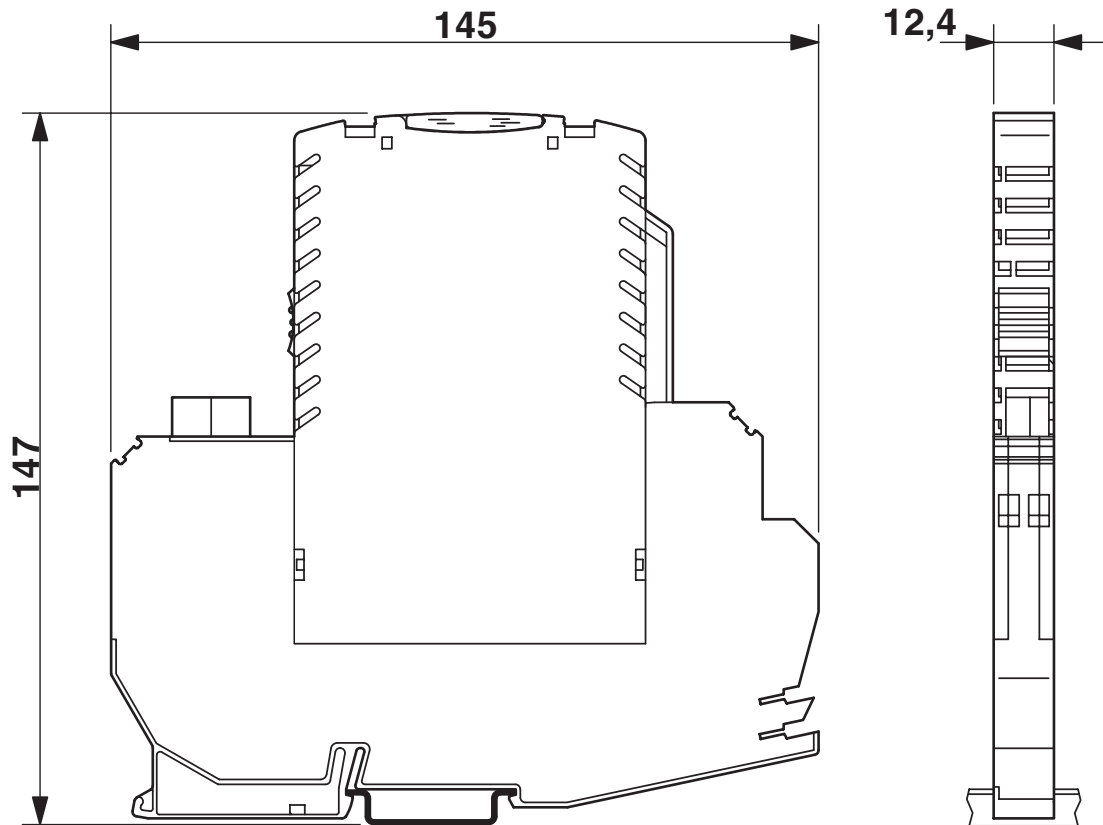
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Drawings

Dimensional drawing

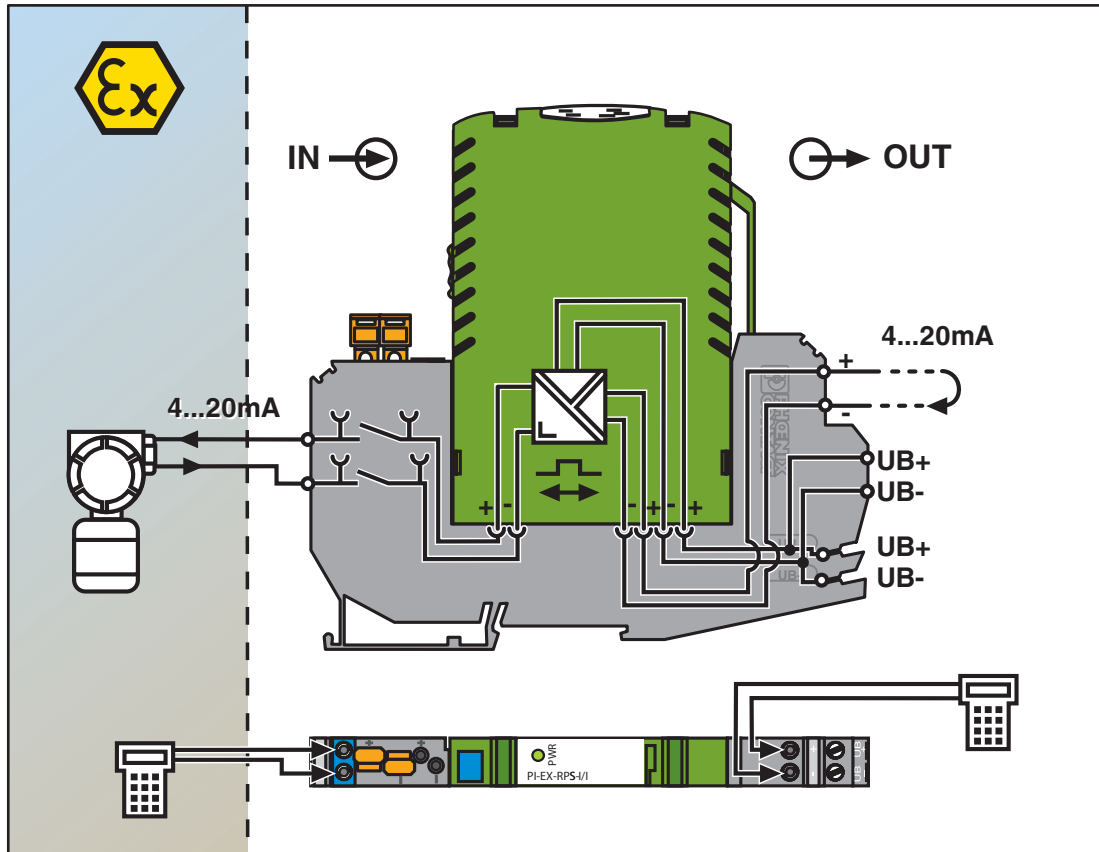


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Block diagram



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Environmental product compliance

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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