

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



2835422

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Repeater power supply, SMART, (analog IN), input: intrinsically safe, input signal: 0(4) ... 20 mA, output signal: 0(4) ... 20 mA

Commercial data

Item number	2835422
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C430
Product key	DK1XXX
GTIN	4017918181154
Weight per piece (including packing)	187.8 g
Weight per piece (excluding packing)	187.3 g
Customs tariff number	85438995
Country of origin	DE

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Technical data

Product properties

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

Electrical properties

Test voltage input/output	1.5 kV AC (50 Hz, 60 s)
Step response (10-90%)	2.2 ms
Maximum temperature coefficient	< 0.01 %/K
Maximum transmission error	≤ 0.1 % (of final value)

Electrical isolation Input/output/power supply

Electrical isolation	375 V (Peak value, in acc. with EN 50020)
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Supply

Supply voltage range	20 V DC ... 30 V DC
Max. current consumption	< 90 mA (at 24 V DC/20 mA)
Power consumption	2.2 W

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	17 V (at 20 mA)
Connection technology	2-, 3-conductor

Output data

Signal

Output description	Current output
Current output signal	0 mA ... 20 mA
	4 mA ... 20 mA
Load/output load current output	800 Ω (550 Ω with SMART)

Connection data

Connection method	Pluggable screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²

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Conductor cross-section AWG	24 ... 14
Tightening torque	0.5 Nm ... 0.6 Nm

Ex data

Safety data

Max. output voltage U_o	28 V
Max. output current I_o	93 mA
Max. output power P_o	650 mW
Safety-related maximum voltage U_m	250 V
IIB: Max. external inductivity L_o / Max. external capacitance C_o	14 mH / 650 nF
IIC: Max. external inductivity L_o / Max. external capacitance C_o	2 mH / 83 nF

Interfaces

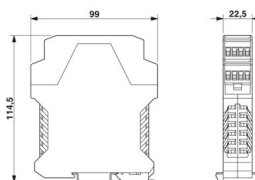
Data communication (bypass)

HART function	yes, parallel to the load or through sockets on the front plate.
Protocols supported	HART, Foxboro, Yokogawa Brain, further types on request
Frequency measuring range	0 Hz ... 12 kHz (signal band width for data communication)

Signaling

Status display	Green LED (supply voltage)
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Dimensions

Dimensional drawing	
Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Material specifications

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

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 80 °C
Permissible humidity (operation)	≤ 75 % (annual average)

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	≤ 95 % (30 days/year, non-condensing)
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Approvals

CE

Certificate	CE-compliant
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ATEX

Identification	⊕ II (1)GD
	[EEx ia] IIC
Certificate	TÜV 00 ATEX 1522

UL, USA/Canada

Identification	cULus
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Standards and regulations

Standards

Standards/regulations	NAMUR recommendation NE 21
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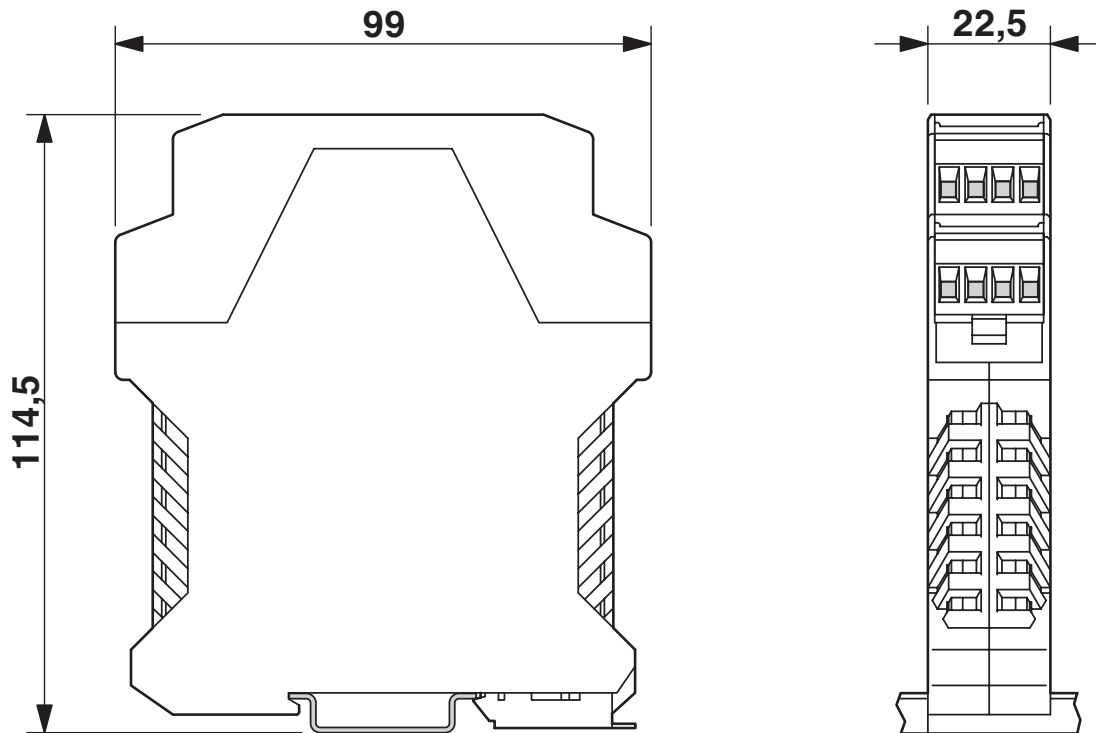
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Drawings

Dimensional drawing

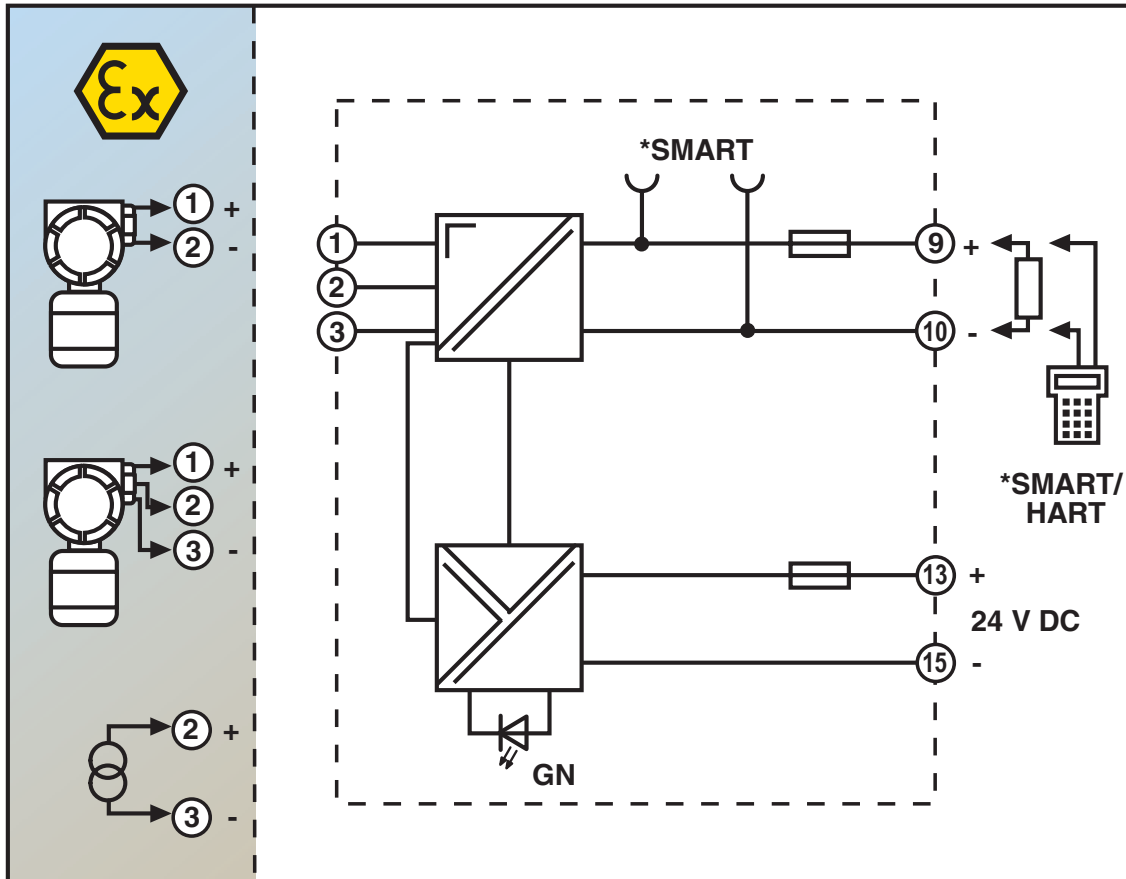


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Block diagram



Block diagram: PI-EX-ME-RPSS-I/I

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Environmental product compliance

EU REACH SVHC

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