

Signal isolator - PI-EX-IDS-I/I - 2835613

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Ex i output signal conditioner, HART-compatible. Isolates and sends intrinsically safe 0/4-20 mA signals to a load (I/P converters, control valves, displays) in Ex areas. Galvanic 3-way isolation (input / output / supply). Line fault detection.



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 934149
GTIN	4017918934149

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	12.4 mm
Height	145 mm
Depth	147 mm

Ambient conditions

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)

Input data

Signal input	Current input
Current input signal	4 mA ... 20 mA
	0 mA ... 20 mA
Input resistance current input	5.4 V (at 20 mA)
Input current range	0 mA ... 22 mA

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Output data

Signal output	Intrinsically safe
Current output signal	4 mA ... 20 mA
	0 mA ... 20 mA
Load/output load current output	$\leq 800 \Omega$
Output ripple (current)	$< 50 \mu A_{PP}$ (For 800 Ω)

Power supply

Supply voltage range	20 V DC ... 35 V DC
Max. current consumption	$< 15 \text{ mA}$ (At 24 V DC / 0 mA)
Power consumption	max. 1.2 W (At 24 V DC / 20 mA)

Connection data

Connection method	Screw connection
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General

No. of channels	1
Maximum transmission error	$\leq 0.1 \%$ (Of end value (at 20°C))
Maximum temperature coefficient	$< 0.01 \%/K$
Step response (10-90%)	$< 140 \mu s$
Status display	Green LED (supply voltage, PWR)
Flammability rating according to UL 94	V0
Standards/regulations	NAMUR recommendation NE 21
Housing material	PBT and polyamide PA non-reinforced
Color	green
Designation	Input/output
Electrical isolation	375 V (Peak value in accordance with EN 60079-11)
Designation	Input/power supply
Electrical isolation	1.5 kV (50 Hz, 1 min., test voltage)
Designation	Output/supply
Electrical isolation	375 V (Peak value in accordance with EN 60079-11)
Conformance	CE-compliant
ATEX	# II (1) GD [EEEx ia] IIC
	# II 3 G Ex nA II T4 X
UL, USA/Canada	UL applied for

Data communication (bypass)

HART function	Yes
Protocols supported	HART

Safety data

Max. inductance L_i	0.1 mH
Max. capacitance C_i	5 nF
Max. output voltage U_o	27.7 V

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Safety data

Max. output current I_o	92 mA
Max. output power P_o	638 mW
Group	IIB
Max. external inductivity L_o	15 mH
Max. external capacity C_o	658 nF
Additional text	The maximum values should be used either solely as concentrated capacitance values or solely as concentrated inductance values, or as cable reactance values
Group	IIB
Max. external inductivity L_o	1.9 mH
Max. external capacity C_o	295 nF
Additional text	The maximum values should also be used as concentrated capacitance values and concentrated inductance values.
Safety-related maximum voltage U_m	250 V AC
Group	IIC
Max. external inductivity L_o	1.2 mH
Max. external capacity C_o	80 nF
Additional text	The maximum values should be used either solely as concentrated capacitance values or solely as concentrated inductance values, or as cable reactance values
Group	IIC
Max. external inductivity L_o	0.4 mH
Max. external capacity C_o	64 nF
Additional text	The maximum values should also be used as concentrated capacitance values and concentrated inductance values.

Standards and Regulations

Standards/regulations	NAMUR recommendation NE 21
Flammability rating according to UL 94	V0
Conformance	CE-compliant
ATEX	# II (1) GD [EEx ia] IIC
	# II 3 G Ex nA II T4 X
UL, USA/Canada	UL applied for
Group	IIB
	IIB
	IIC
	IIC

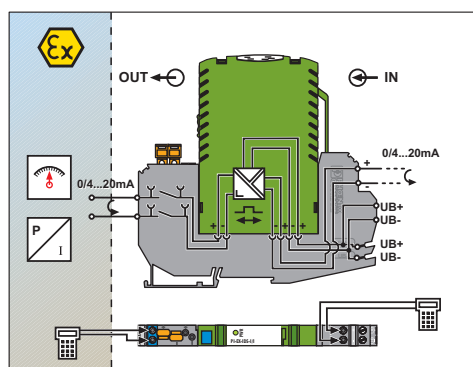
Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

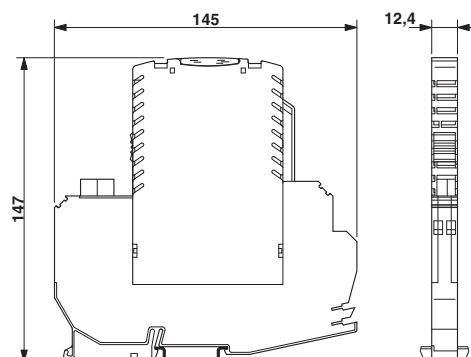
Drawings

Signal isolator - PI-EX-IDS-I/I - 2835613

Block diagram



Dimensional drawing



Approvals

Approvals

Approvals

EAC

Ex Approvals

EAC Ex / null / null / null / null / null / null

Approval details

EAC	EAC	EAC-Zulassung
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