

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

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Ex-i output signal conditioner, HART-capable. 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 PCE
Weight per Piece (excluding packing)	106.8 GRM
Custom tariff number	85437090
Country of origin	Germany

### 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 % (no condensation)
Degree of protection	IP20

#### Input data

Signal input	Current input
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## Technical data

### Input data

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

### Output data

Signal output	Intrinsically safe
Current output signal	4 mA ... 20 mA
	0 mA ... 20 mA
Load/output load current output	≤ 800 Ω
Output ripple (current)	< 50 μA <sub>pp</sub> (For 800 Ω)

### Power supply

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

### General

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

### Data communication (bypass)

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## Technical data

### 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
Max. output current $I_o$	92 mA
Max. output power $P_o$	638 mW
Gas 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
Gas 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
Gas 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
Gas 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.

## Classifications

### eCl@ss

eCl@ss 4.0	27210121
eCl@ss 4.1	27210121
eCl@ss 5.0	27210121

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## Classifications

### eCl@ss

eCl@ss 5.1	27210121
eCl@ss 6.0	27210121
eCl@ss 7.0	27210121
eCl@ss 8.0	27210121

### ETIM

ETIM 2.0	EC001431
ETIM 3.0	EC001596
ETIM 4.0	EC001596
ETIM 5.0	EC001596

### UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008

## Accessories

### Additional products

Basic terminal block - PI-EX-TB - 2835901



Ex base terminal block for intrinsically safe signals with knife disconnection and test connections

Surge protection device - TT-PI-EX-TB - 2858386



Intrinsically safe basic terminal block with isolating connector, test connections and surge protection, for mounting on NS 35/7.5

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## Accessories

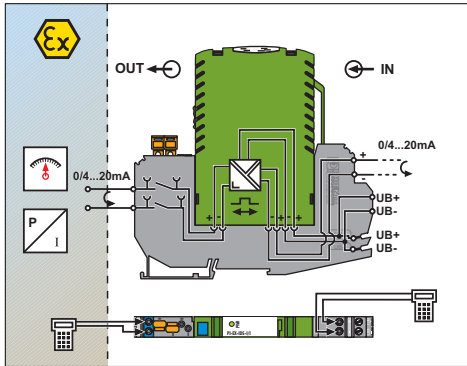
Basic terminal block - PI-EX-ES-1/3 - 2835325



Ex basic terminal block, with three terminal points to the field level (Ex area)

## Drawings

Block diagram



Dimensioned drawing

