

# Data sheet

## PTi-F-C12 24 V AC/DC

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P/N

1105010870

EAN 4251394629414

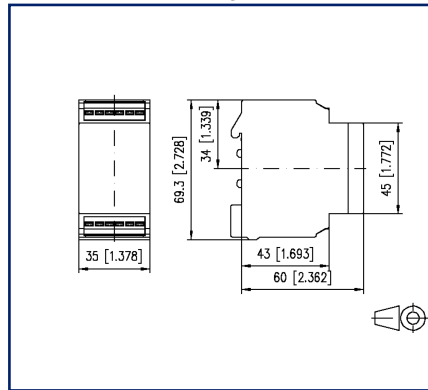
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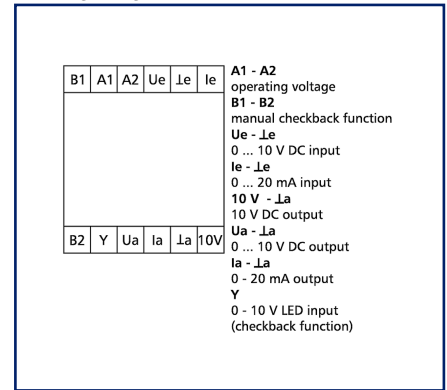
### Illustrations



Dimensional drawing



Wiring diagram



See enlarged drawings at the end of document

### Product specification

The potential isolator / signal converter is used for isolating analog signals in the range from 0 to 10 V DC, and 0 to 20 mA DC or for a signal conversion from 0 to 10 V DC to 0 to 20 mA DC or 0 to 20 mA DC to 0 to 10 V DC. The input and output signals as well as the supply voltage are electrically isolated from each other. An input signal from 0 to 10 V or 0 to 20 mA can be connected to the device. Electrical isolation function: With the PT-C12, the input signal 0 to 10 V is adjusted proportionally to the output signal 0 to 10 V. The PTi-C12 adjusts the input signal from 0 to 20 mA proportional to the output signal from 0 to 20 mA. Function Signal conversion with potential separation: With a signal conversion from 0 to 10 V to 0 to 20 mA, or from 0 to 20 mA to 0 to 10 V, the output signal converted thereby can be readjusted using an integrated spindle trimmer. In addition, a manual emergency operating option with a MANUAL AUTO switch with feedback contact is also integrated. The output signal from 0 to 10 V or 0 to 20 mA can be set via the front potentiometer when the switch is in the MANUAL position. A constant output voltage of max. 10 V DC and 5 mA is available at the 10 V terminal. Input Y is used for the LED display of the output voltage Ua. The brightness of the LED depends on the level of the output signal (bridge between Ua and Y). Alternatively, an external signal at the input Y can be connected to the LED display from 0 to 10 V DC.

- Connection with spring clamp terminal blocks (push-in)

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**Technical Data**

<b>Supply</b>	
Operating voltage	24 V AC/DC -20% ... +15%
Power consumption AC (max.)	200 mA
Power consumption DC (max.)	110 mA
Power consumption AC (max.)	4.8 VA
Power consumption DC (max.)	2.64 W
Duty cycle relative	100 %
<b>Inputs</b>	
Voltage input	
Voltage input - input signal	0 - 10 V DC
Voltage input - input resistance	> 50 K/W
Current input	
Current input - input resistance	45
<b>Outputs</b>	
Current output current load	max. 500 Ohm
Indicator	green LED
<b>General information</b>	
Isolation	1000 V DC, 50 Hz, 1 min.
<b>Housing</b>	
Dimensions	
Dimension (W x H x D)	35 mm x 69.3 mm x 60 mm
Dimension (W x H x D)	1.378 in. x 2.728 in. x 2.362 in.
Weight	78 g
Mounting style	Standard rail TH35
Mounting position	any
Apposition	without distance
Connection type	Spring clamp terminal blocks

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**Technical Data**

<b>Terminal blocks</b>	
Wire cross section solid	0.2 mm <sup>2</sup> - 2.5 mm <sup>2</sup> / AWG 24-14
Wire cross section multi	0.25 mm <sup>2</sup> - 2.5 mm <sup>2</sup> / AWG 24-12
Wire cross section with wire ferrule	0.25 mm <sup>2</sup> - 1.5 mm <sup>2</sup> / AWG 24-16
Stripping length (min.)	8 mm
<b>Material</b>	
Material - Housing	Polyamid 6.6 V0
Color	gray
Material - Terminal block	Polyamid 6.6 V0
Material - Covers	Polycarbonat
<b>Protection category according to IEC 60529</b>	
Protection category - housing (acc. to IEC 60529)	IP40
Protection category - terminal blocks (acc. to IEC 60529)	IP20
<b>Climatic Data</b>	
Operating	
Temperature - Operating °C	0 °C - 55 °C
Temperature - Operating °F	32 °F - 131 °F
Relative humidity	max. 85 % non-condensing
Storage	
Temperature - Storage °C	-20 °C - 70 °C
Temperature - Storage °F	-4 °F - 158 °F
<b>Power loss</b>	
Power loss (typical)	2.6 W
<b>Classifications</b>	
ETIM 7.0	EC000310
ETIM 8.0	EC000310
ETIM 9.0	EC000310
ETIM 10.0	EC000310

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**Technical Data****Application note**

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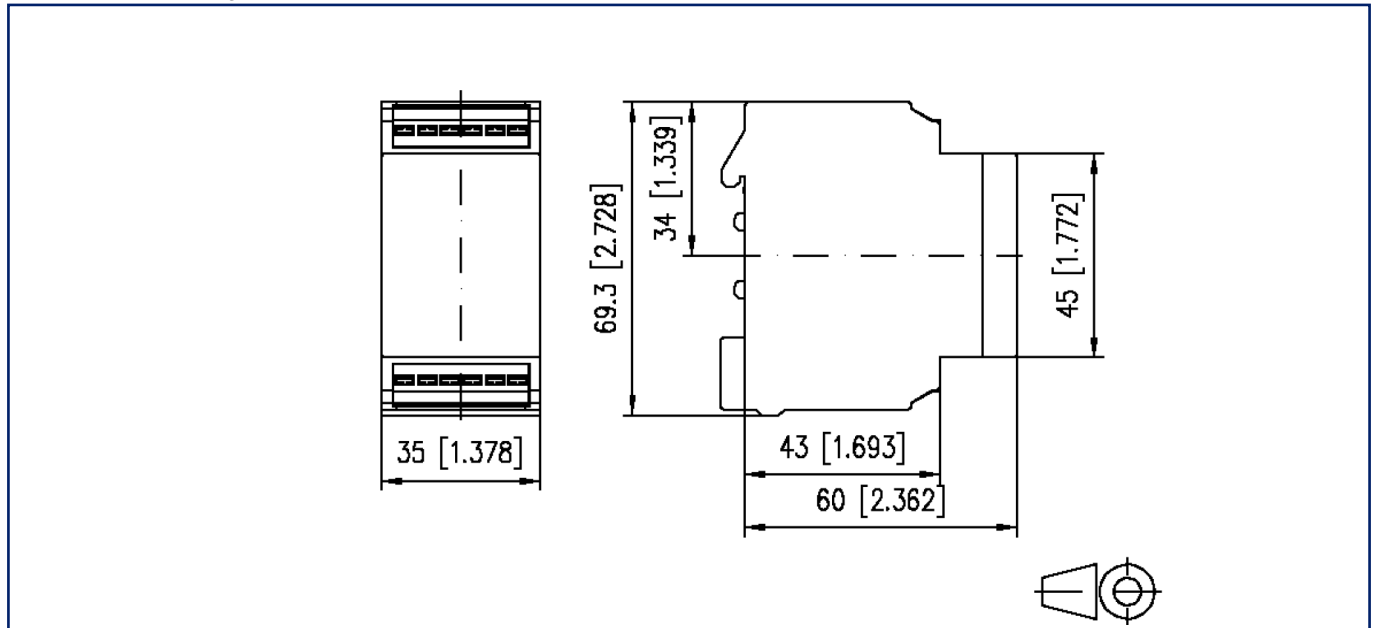
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**Illustrations**

Dimensional drawing



Wiring diagram

B1	A1	A2	Ue	┘e	le	A1 - A2 operating voltage
						B1 - B2 manual checkback function
						Ue - ┘e 0 ... 10 V DC input
						le - ┘e 0 ... 20 mA input
						10 V - ┘a 10 V DC output
B2	Y	Ua	┘a	┘a	10V	Ua - ┘a 0 ... 10 V DC output
						┘a - ┘a 0 - 20 mA output
						Y 0 - 10 V LED input (checkback function)

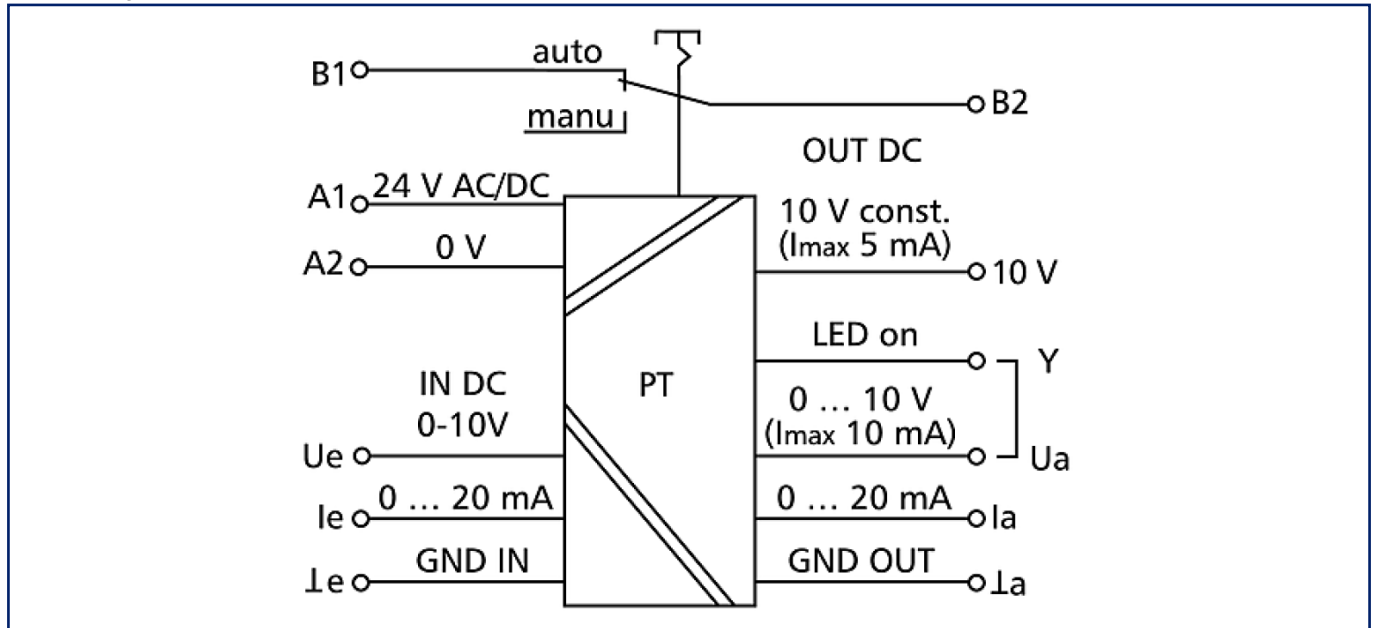
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**Illustrations**

Circuit diagram



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