

# Data sheet

## PT-C12 24 V AC/DC

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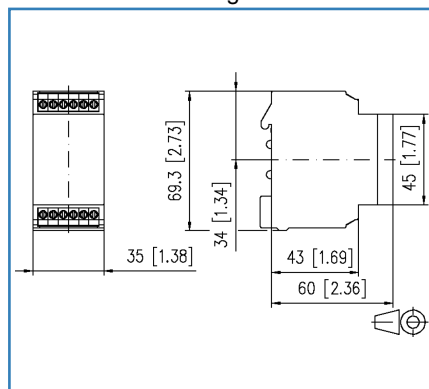
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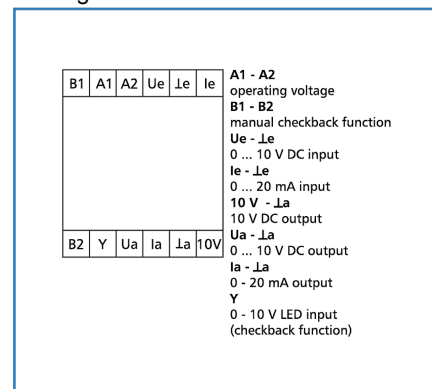
## Illustrations



Dimensional drawing



Wiring



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 screw type terminal blocks

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### Technical Data

#### Supply

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 %

#### Inputs

Voltage input	
Voltage input - input resistance	> 50 K/W
Current input	
Current input - input resistance	45 W

#### Outputs

Current output current load	max. 500 Ohm
Indicator	green LED

#### General information

isolation	1000 V DC, 50 Hz, 1 min.
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#### Housing

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
Built-in	any
Apposition	without distance
Connection type	Screw type terminal blocks

#### Terminal blocks

Wire cross section solid	0.2 mm <sup>2</sup> - 2.5 mm <sup>2</sup> / AWG 22-12
Wire cross section multi	0.25 mm <sup>2</sup> - 2.5 mm <sup>2</sup> / AWG 22-12
Wire cross section with wire ferrule	0.25 mm <sup>2</sup> - 2.5 mm <sup>2</sup> / AWG 22-12
Screw torque (max.)	0.5 Nm
Stripping length (min.)	8 mm



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### Technical Data

#### Material

Material - Housing	Polyamid 6.6 V0
Color	gray
Material - Terminal block	Polyamid 6.6 V0
Material - Covers	Polycarbonat
REACH - substance (SVHC)	Lead / 7439-92-1

#### Protection category according to IEC 60529

Protection category - housing (acc. to IEC 60529)	IP40
Protection category - terminal blocks (acc. to IEC 60529)	IP20

#### Temperature range

Operating	
Temperature - Operating °C	0 °C - 55 °C
Temperature - Operating °F	32 °F - 131 °F
Storage	
Temperature - Storage °C	-20 °C - 70 °C
Temperature - Storage °F	-4 °F - 158 °F

#### Power loss

Power loss (typical)	2.6 W
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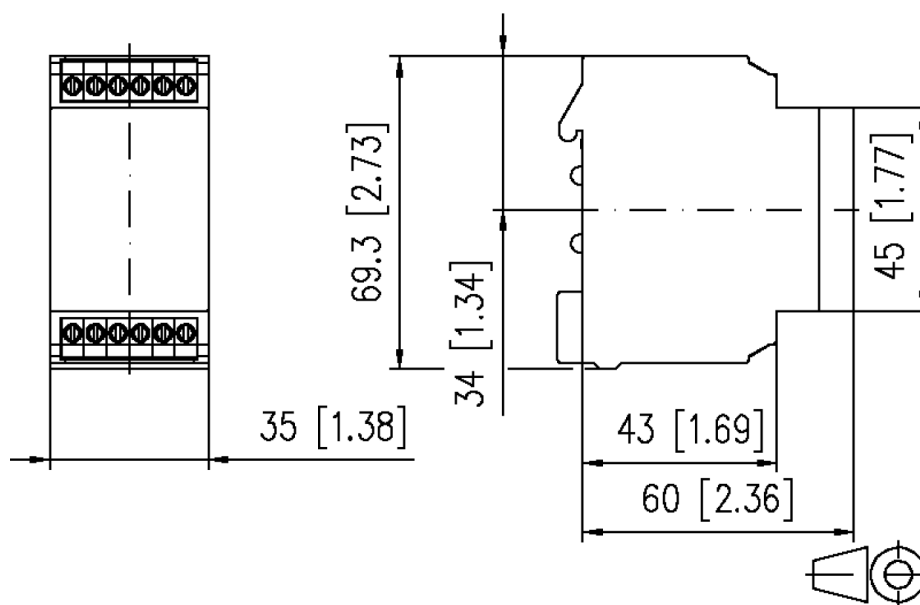
#### Classifications

ETIM 7.0	EC000310
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## Illustrations

Dimensional drawing



Wiring

B1	A1	A2	Ue	Ie	Ie
B2	Y	Ua	Ia	Ia	10V

**A1 - A2**  
operating voltage  
**B1 - B2**  
manual checkback function  
**Ue - Ie**  
0 ... 10 V DC input  
**Ie - Ie**  
0 ... 20 mA input  
**10 V - Ia**  
10 V DC output  
**Ua - Ia**  
0 ... 10 V DC output  
**Ia - Ia**  
0 - 20 mA output  
**Y**  
0 - 10 V LED input  
(checkback function)

## Illustrations

Circuit diagram

