

PI Loop Module

Model PI240-000

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Model PI240-000 is designed for industrial applications that require a basic Proportional-Integral (PI) loop controller. Some example applications include Dancer Positioning and Loadcell Tension Control.

The PI module includes onboard multi-turn potentiometers for adjusting the Setpoint (SP), Proportional Gain, Integral Time, and PI Trim. The module provides terminals for connecting the process variable (PV or feedback) signal and an optional summing input signal. Additional terminals also provide for an Enable and Teach inputs. Furthermore, the Teach input can also be used to control the polarity (unipolar/bipolar) of the Integral component. An internal jumper allows selection of a voltage or current output. Onboard EEPROM is used to backup and retain the feedback calibration values during a power loss.

Electrical Specifications

D.C. Power Input

• 24 VDC ±10%, 60mA max, internally fused

+10VDC Reference Output

• 10mA max

Feedback/Sum Inputs

• Range: 0-10VDC

• Input Impedance: $10^{12} \Omega$

Potentiometers

• Turns: 15

Signal Output

Voltage Output

Selected by position V on J2. This circuit allows the output to source a voltage level of up to +10 VDC into a minimum resistance of 600 Ohms. If resistance is too low, output linearity may be affected.



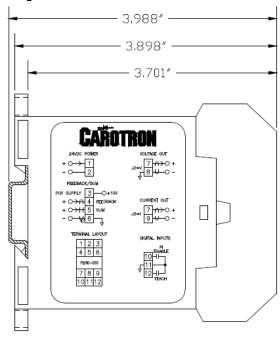
Current Output

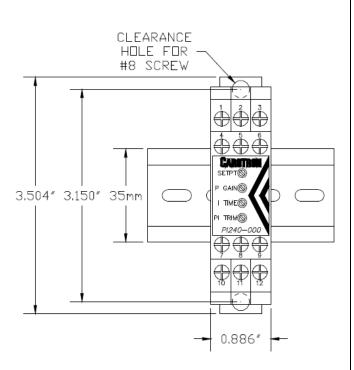
Selected by position I on J2. This circuit allows the output to source a regulated current up to 20mA into a maximum resistance of 500 Ohms.

Temperature Range

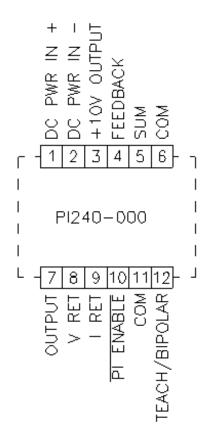
• 0-55° C

Physical Dimensions





General Connections



PI Loop Module PI240-000

Physical Specifications

3.504" H x 0.886" W x 3.898" D

Shipping Weight: 2 lbs.

View or download the complete PI (Proportional Integral) Loop Module Instruction Manual (1056-0A) from www.carotron.com.



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