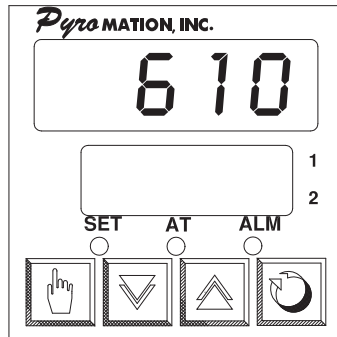


The Series 610 1/16 DIN Controller is loaded with standard and optional features that provide a flexible and economical solution for almost any application. Customize the unit with just the functions your application requires, minimizing your cost. Features flexible input/output options and large LED display. The digital controller is fitted with one latchable relay as standard. Plug-in modules allow two additional relays, process variable retransmission, or transmitter power supply. May be auto or manual tuned. Configuration can be modified in the field through the front panel or through use of a computer interface.



Features and Benefits

- Heat/Cool operation
- Two Process Alarms
- Loop Alarm
- Auto/Manual Tuning
- PC Configuration
- Process Variable Retransmit Option

TECHNICAL DATA

General

Control Types	Full PID with Pre-tune, Self-tune, Manual Tuning, or On-Off control. Heat only or heat and cool.
Output Configuration	Up to 3 total, max 2 for control (Heat and Cool), max 2 for Alarms, max 1 for retransmit of PV
Alarm Types	Process high, process low, SP deviation, band, logical OR and hysteresis. Also 1 loop alarm.
Human Interface	4 button operation, dual 4 digit 10 mm and 8 mm high LED display, plus 3 LED indicators.
PC Configuration	Off-line configuration from serial port to dedicated configuration socket.

Output and Options

Control & Alarm Relay(s)	Contacts: SPDT 2 A resistive at 240 V ac, > 500,000 operations
Control SSR	Drive capability > 4.2 V dc in 1 K Ω minimum
Solid State (Triac)	(0.01 to 1) A ac (20 to 280) V, (47 to 63) Hz
Retransmit Output	(0 to 20) mA or (4 to 20) mA into 500 Ω max, (0 to 10) V or (0 to 5) V into 500 Ω min. Accuracy typically $\pm 0.25\%$



Inputs

Thermocouple Types	J,K,R,S,T,B,L,N & Pt100 Rh 20% vs Pt Rh 40%
RTD	3 wire Pt100 ($\alpha = 0.00385\text{ }^{\circ}\text{C}^{-1}$), 50 Ω per lead maximum (balanced)
DC Linear	(0 to 20) mA or (4 to 20) mA, (0 to 50) mV or (10 to 50) mV, (0 to 5) V or (1 to 5) V, (0 to 10) V or (2 to 10) V. Scalable -1999 to 9999, decimal point available
Impedance	> 100 M Ω for Thermocouple and mV ranges, 47 K Ω for V ranges and 5 Ω for mA ranges
Accuracy	$\pm 0.1\%$ of input span ± 1 LSD (T/C CJC better than 1 $^{\circ}\text{C}$)
Sampling	4 s, 14 bit resolution (approximately)
Sensor Break Detection	< 2 second (except zero based DC ranges), control O/P's turn off, high alarms activate for T/C and mV ranges, low alarms activate for RTD, mA or V ranges.

Operating Conditions

Temperature & RH	(0 to 55) $^{\circ}\text{C}$, 20% to 95% RH non-condensing, (-20 to 80) $^{\circ}\text{C}$ for storage
Power supply	(100 to 240) V ac 50/60 Hz 7.5VA (optional (20 to 48) V ac 7.5 VA or (22 to 65) V dc 5 W)
Front Panel Protection	IEC IP66 (Behind panel protection is IP20)

Approvals

	Unit complies with the legal requirements set forth by the EU regulations.
	UL Recognized Component