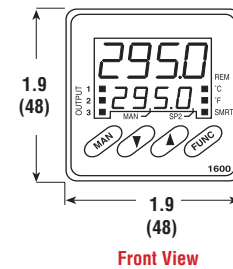
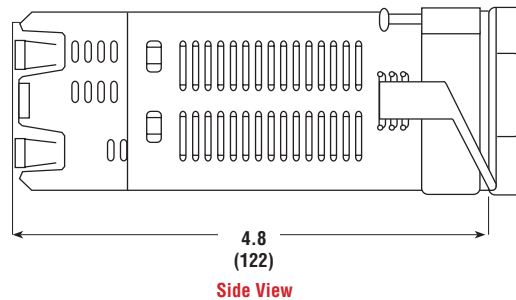


1604mA 1/16 DIN Temperature Controller



- 4-20 and 0-20mA Linear Control Output or Process/Setpoint Retransmit
- SMART Self-Tuning with Fuzzy Logic
- Heat/Cool Control
- Universal Inputs: TC, RTD, Voltage and Current
- Two Relay Outputs for Control or Alarm
- Soft-Start Power Limiting on Power-Up
- Two Independent Setpoints Switched by Dry Contacts
- NEMA 4X, IP65 Faceplate
- Three Year Warranty

Dimensions



All Dimensions in Inches (mm)

Description

The 1604mA Controller is an fully featured dual 4-digit display 1/16 DIN with the control features of a sophisticated Auto-tuning PID controller. All 1604mA controllers are equipped with a flexible 4-20 or 0-20mA output and 2 Relay outputs. The analog output can be programmed as a control output or a retransmit output for either the process or set point. The relays can be programmed as either Control or Alarm Outputs.

In addition to excellent control, the **1604mA** has the following features:

- Accepts and scales an analog current or voltage input
- Ramp to set point capability
- **Soft Start** limits the output on startup to minimize overshoot and distribute heat more evenly in the product.
- Digital Communications Option via a RS485 Port with Modbus Protocol

1604mA 1/16 DIN Temperature Controller (cont'd.)

Specifications

Control Modes	Field Selectable	On/Off, PID SMART (Autotune) Bumpless, Balanceless transfer with Proportional Control	
Heat/Cool	Relative Gain	0.20-1, select air, oil or water	
Outputs			
Output #1	4-20mA Current (0-500Ω Load)		
Output #2	Alarm or Control Output Relay NO. SPST contact, 2 Amps at 250 Vac (resistive)		
Output #3	Alarm Output SPST relay, 2 Amps at 250 Vac or Control (resistive load)		
Alarm Features	Field Selectable		
Functions	Process, Deviation, Band or Heater Breakdown Alarm (1604 only)		
Types	Normally Energized/Normally De-energized Inhibit on Power-Up and Setpoint Changes Latching/Non-latching (Manual/Automatic Reset)		
Input Specifications			
Sensor Type	Range* °F	°C	
Thermocouple	J	-150 to +1830	-100 to +1000 -100.0 to +400.0
	K	-150 to +2500	-100 to +1370 -100.0 to +400.0
	L	0-1650	0-900 -100.0 to +400.0
	N	-150 to +2550	-100 to +1400
	R	0-3200	0-1760
	S	0-3200	0-1760
	T	-330 to +750	-199.9 to +400.0
RTD		-330 to +1470	-200 to +800
		-199.9 to +400.0	-199.9 to +400.0
Current	0-20mA or 4-20mA dc		
Voltage	0-5, 1-5, 0-10, or 2-10Vdc, 0-60 or 12-60mVdc		
		Range and decimal points programmable, -1999 to 4000	
	*Field Programmable for °C or °F		
Digital Communications	RS-485 multi-drop, Isolated, Modbus and J-BUS protocol selection		
Instrument Power	100-240 Vac, +10%, -15%, 50-60 Hz, 24 Vac or Vdc		
Operating Environment	30-120°F (0-50°C) ambient with less than 85% relative humidity		

Ordering Information

Complete the Model Number using the Matrix provided.

In Stock:

Model	PCN
1604-71130	307491
1604-71150	329744

Model	1/16 DIN Temperature Controller					
1604	SMART Self-Tuning, 2 Outputs (Heat/Cool or Control/Alarm), Dual 4-Digit Display of Process and Setpoint, Field Selectable Universal Thermocouple, RTD, Voltage or Current Inputs, Auto-Manual Control, Programmable Alarms, 0.1 Degree Display Resolution, IEC 801-4 Noise Immunity, IP65 and NEMA 4X Splashproof Faceplate					
Code	Output 1 - Heat, Cool or Process/Setpoint Retransmit					
7	0-20mA or 4-20mA Linear Output (programmable), opto-isolated					
Code	Output 2 - Heat, Cool or Alarm					
1	Relay, 2 Amps at 240 Vac (Resistive Load)					
Code	Options					
1	Output 3 Relay, 2 Amps at 250 Vac (Resistive Load)					
3	RS-485 Digital Communications and Output #3					
Code	Power Supply					
3	100/240 Vac					
5	24 Vac/Vdc					
Code						
0	Add to complete model number					
1604 -	7	1	1	3	0	Typical Model Number