

Analog Series 2000 Full Feature Temperature Controllers

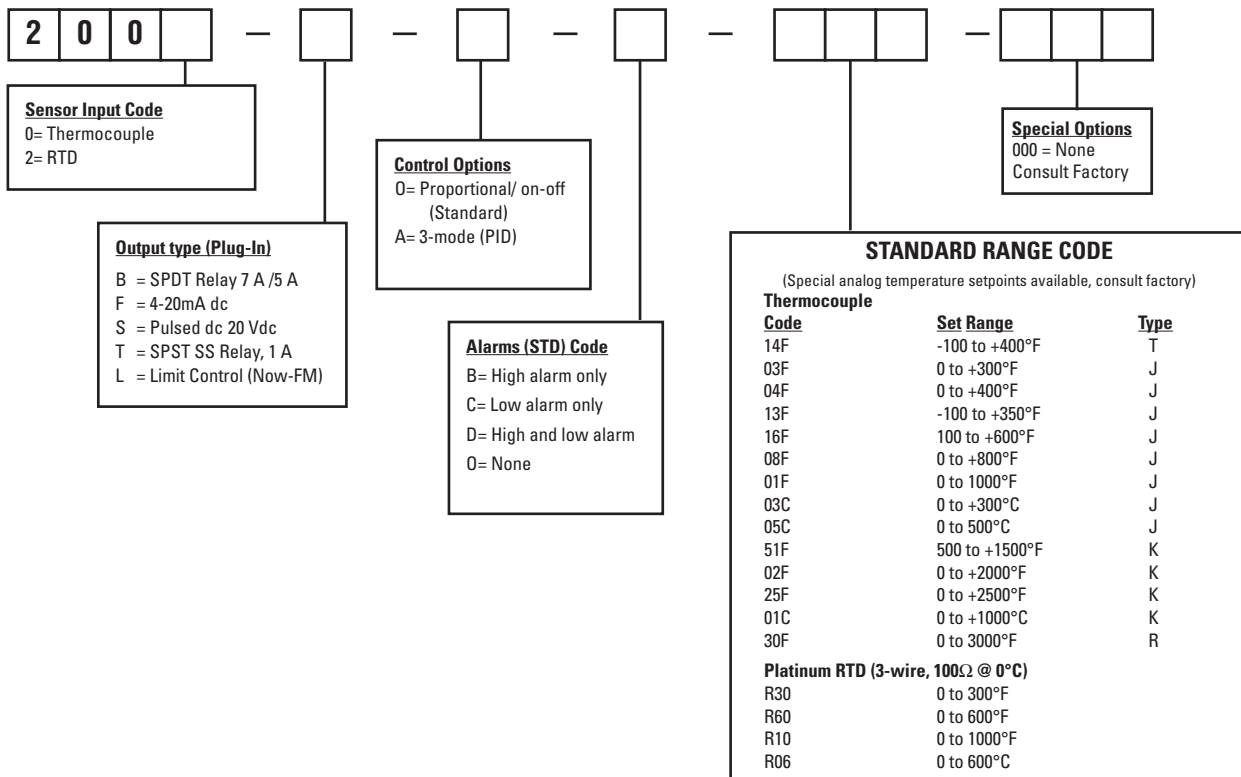


The Athena 2000 is a 1/4 DIN panel mounted, full featured, metal case enclosed controller that can be used for accurate proportional control of most processes. The Controller accepts thermocouple or RTD input and offers a choice of standard single outputs for energizing most common devices. A dual meter dial display provides visual indication of various controller functions.

- ▲ Noise-Immune Analog Circuitry
- ▲ Simple to Use (No Programming Required)
- ▲ Adjustable Bandwidth and Reset
- ▲ Optional PID
- ▲ Adjustable High/Low Alarm
- ▲ Linearized Analog Setpoint
- ▲ Limit Controller Configuration Available



Ordering Information



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Technical Specifications

Line Voltage	120/240 V \pm 10% to \pm 15%, 50-60 Hz	Proportional Band	On/off or nominal 5°F to 50°F (3°C to 30°C)
Power Consumption	Less than 5 VA	Offset (manual reset)	Adjustable over 100% of proportional band
Setpoint	Analog-Single turn potentiometer 270° rotation	Rate (derivative)	0.5 to 40 sec
Setpoint	0.2% span	Reset (integral)	0.7, 1, 2 or 4 min via internal switches
Indication	Temperature: Deviation meter \pm 50°F or \pm 30°C of setpoint Load: Red LED output light Alarm: Red LED	Common Mode	Maximum error \pm 1°C with 240 V, 60 Hz applied
Accuracy	\pm 0.5% of span at calibration points	Rejection	As a common mode signal between sensor input and chassis ground
Cold Junction Compensation	Automatic, electrical	Series Mode Rejection	Maximum error = 1°C with series mode signal of 100 mV pk-to-pk at 60 Hz
Setpoint Repeatability	\pm 0.3% of span	Ambient Temperature	32°F to 131°F (0°C to 55°C)
Thermocouple	Failsafe, open sensor, output zero,	Dimensions	Front Panel - 3.780 sq. in. (96 mm ²) Depth Behind Panel - 3.780" (96 mm) Panel cutout - 3.622 sq. in. (92 mm ²)
Break Protection	Upscale indication on meter		
Input	J,K,R,T, thermocouples Platinum RTD DIN standard		
Sensor Lead Resistance	Thermocouple, maximum lead resistance 100 Ω for specified accuracy		

Output Type	B	F	S	T	L	Alarm
Output (field changeable modules)	SPDT relay Resistive load rating: 7 A/120 V 5 A/240 V, 50 VA inductive	4-20 mA _{dc} into 1000 Ω maximum; not isolated from thermocouple	Pulsed dc for driving SS contactors 0-20 V, open ckt; 0-20 mA, short ckt; not isolated from thermocouple	SPST SS relay, zero voltage switched 1 A 120/240 Vac, 10 A inrush, 2-4 mA leakage.	Limit Controller	SPDT relay 3 A @ 120 V resistive
Output cycle time (Switch selectable)	On-off, 5-10-15 sec	Continuous Proportioning	0.5-1.0-1.5 sec	0.5-1.0-1.5 5-10-15 sec	N/A	On-off
Proportional Band		On-off or nominal 5°F-50°F (3°C-30°C) (front panel adjustment)			N/A	2°F differential