



# ANALOG SERIES 2000 FULL FEATURE TEMPERATURE CONTROLLERS

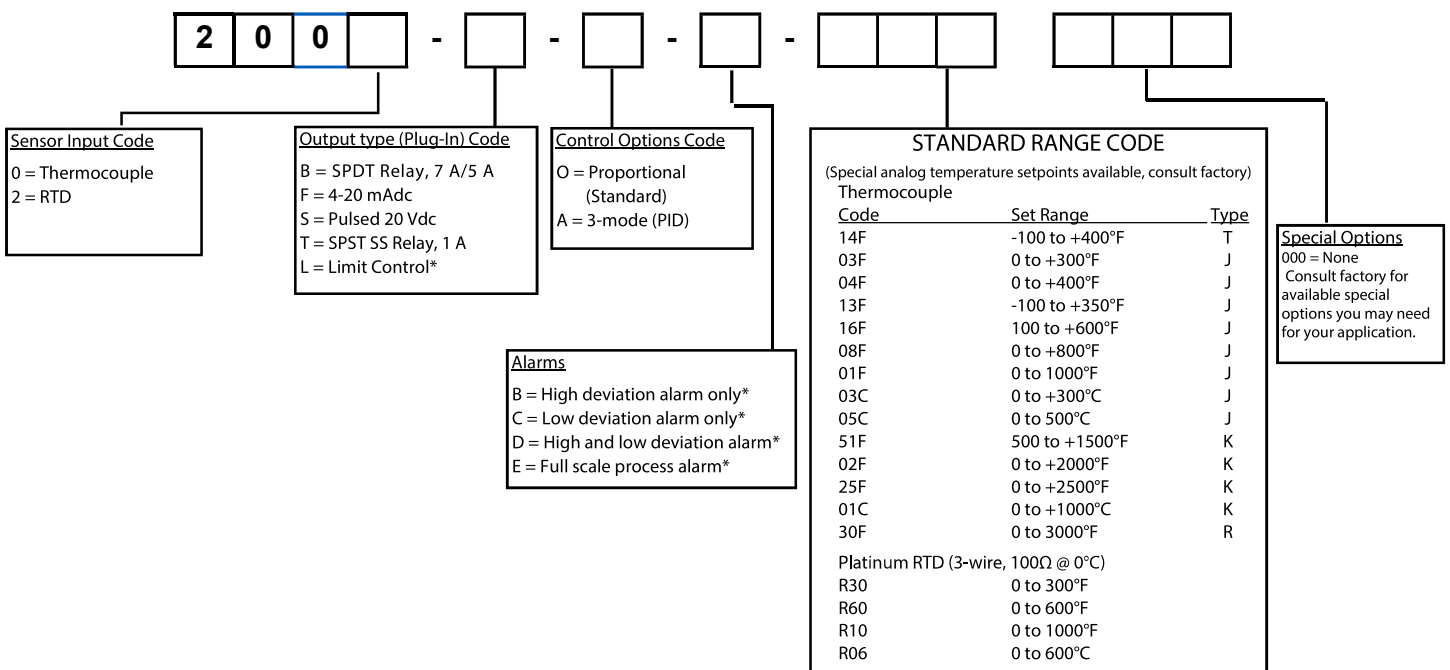
The Athena 2000 is a 1/4 DIN panel mounted, full featured, metal case enclosed controller that can be used for accurate proportional control of most processes. The Controller accepts thermocouple or RTD input and offers a choice of standard single outputs for energizing most common devices. A dual meter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

## KEY FEATURES

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



## ORDERING INFORMATION



## 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 Rejection	Maximum error $\pm$ 1°C with 240 V, 60 Hz applied As a common mode signal between sensor input and chassis ground
Accuracy	$\pm$ 0.5% of span at calibration points	Series Mode Rejection	Maximum error = 1°C with series mode signal of 100 mV pk-to-pk at 60 Hz
Cold Junction Compensation	Automatic, electrical	Ambient Temperature	32°F to 131°F (0°C to 55°C)
Setpoint Repeatability	$\pm$ 0.3% of span	Dimensions	Front Panel - 3.780 sq. in. (96 mm <sup>2</sup> ) Depth Behind Panel - 3.780" (96 mm) Panel cutout - 3.622 sq. in. (92 mm <sup>2</sup> )
Thermocouple	Failsafe, open sensor, output zero,		
Break Protection	Upscale indication on meter		
Input	J,K,R,T, thermocouples Platinum RTD DIN standard		
Sensor Lead Resistance	Thermocouple, maximum lead resistance 100Ω for specified accuracy		

Output Type	B	F	S	T	L	Alarm
Limit Controller @ 120 V resistive	SPDT relay 3 A SPST SS relay, zero voltage switched 1 A 120/240 Vac, 10 A inrush, 2-4 mA leakage.	Pulsed dc for driving SS contactors 0-20 V, open ckt; 0-20 mA, short ckt; not isolated from thermocouple	4-20 mAdc into 1000Ω maximum; not isolated from thermocouple	SPDT relay Resistive load rating: 7 A/120 V 5 A/240 V, 50 VA inductive		Output (field changeable modules)
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



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