



C-SERIES 32C UNIVERSAL TEMPERATURE / PROCESS CONTROLLER

The Athena 32C is a 1/32 DIN panel mounted, auto-tuning controller that can be used for precise control of a single loop with two independent outputs field-configurable as direct acting, reverse acting or alarm. An LED display provides visual indication of various controller functions.

KEY FEATURES

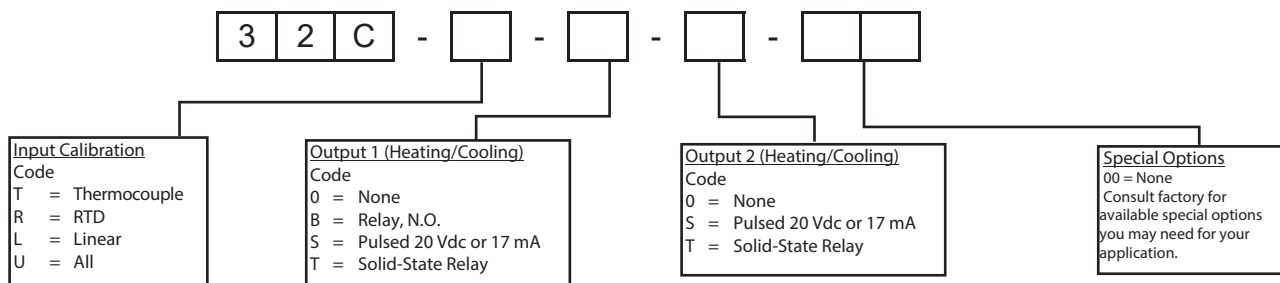
- ▲ Field-Configurable Universal Inputs
- ▲ Bumpless Auto/Manual Transfer
- ▲ NEMA 4X (IP65) Dust and Splash-Proof Front Panel
- ▲ Decimal Display in 0.1° for Measured Temperatures Under 1000° F or °C
- ▲ On/Off Through Full PID Operation (P, PI, PD, PID)
- ▲ Adjustable Hysteresis and Deadband
- ▲ Outputs Configurable as Alarms
- ▲ Field-Configurable Process or Deviation Alarms; Latching or Non-Latching; Band and Inverse Band
- ▲ Dual Output/Dual Alarm Capabilities
- ▲ UL, cUL, and CE Approvals
- ▲ Special and Custom Options Available



RANGE INFORMATION

Input	Range
"J"	-148°F to 1400°F (-100°C to 760°C)
"K"	-220°F to 2462°F (-140°C to 1354°C)
Millivolt Linear (Scalable)	0 to 50mV / 10 to 50mV
"T"	-202°F to 752°F (-130°C to 400°C)
100 ohm RTD	-328°F to 1562°F (-200°C to 850°C)
100 ohm RTD (decimal)	-199°F to 392°F (-128°C to 200°C)
Current Linear (scalable)	4 to 20mA, 0 to 20mA

ORDERING INFORMATION



TECHNICAL SPECIFICATIONS

OPERATING LIMITS

Ambient Temperature	32°F to 140°F (0°C to 60°C)
Relative Humidity Tolerance	90%, non-condensing
Power	85-265 Vac, 50/60 Hz 120 to 375 Vdc (auto polarity)
Power Consumption	Less than 6 VA (instrument)

PERFORMANCE

Accuracy	±0.20% of full scale (±0.10% typical), ±1 digit
Setpoint Resolution	1.0 count / 0.1 count
Repeatability	±1.0 count
Temperature Stability	5 µV/°C (maximum)
TC Cold-End Tracking	0.05°C/°C ambient
Noise Rejection	100 dB common mode 70 dB series mode
Process Sampling	3.5 Hz (270 ms)

CONTROL CHARACTERISTICS

Setpoint Limits	Span of Sensor
Alarms	Adjustable for high/low; selectable for process or deviation
Proportional Band	1 to span of sensor
Integral	0 to 9600 sec
Derivative	0 to 2400 sec
Cycle Time	0.3 to 120 sec
Control Hysteresis	1 to span of sensor
Dead Band (Output 1 & 2)	Range of Sensor
Auto-Tune	Operator initiated

INPUTS

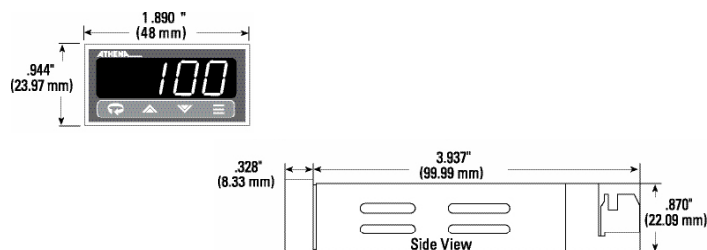
Thermocouple	J, K, T Maximum lead resistance 100 ohms for rated accuracy
RTD	Platinum 2- and 3-wire, 100 ohms at 0°C, (DIN curve standard 0.00385)
Linear	0-50 mV/10-50 mV, 0-20 mA/4-20 mA,
Decimal Position	Selectable, 1/10, 1/100

OUTPUTS

B	5 A/3 A (120/240 Vac), normally open
S	20 Vdc or 17 mA
T	1 A, Solid-state relay

MECHANICAL CHARACTERISTICS

Display	4-digit 0.39" (10 mm) LED display
Numeric Range	-1999 to 9999
Front-Panel Rating	NEMA 4X (IP65)
Front-Panel Cutout	0.874" x 1.771" (22.19 mm x 45 mm)
Connections	Screw Terminals



Output 1
Output-1 LED
Indication (Output-1)



Four-Digit LED Display
Displays measured process value, setpoint, or parameter labels and settings.

Output 2
LED Indication
(Output-2 action)

Mode Key Used to access Standby, Tune, Run or Manual modes.

Lower Key Used to scroll down through available parameter settings, decrease values or change menu levels (Hold for fast-step progression)

Raise Key Used to scroll up through available parameter settings, increase values or change menu levels (Hold for fast-step progression)

Parameter/Access Key Used to index through parameters or to access Menu Levels

Specifications subject to change without notice.