ATHENA®
a higher level of control

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

32C – □ – □ – □ – □□

Input Calibration
Code
T = Thermocouple
R = RTD
M = Millivolt Linear
C = Current Linear

Output 1 (Heating/Cooling)
Code
0 = None
B = Relay, N.O.
S = Pulsed 20 Vdc or 17 mA
T = Solid-State Relay

Output 2 (Heating/Cooling)
Code
0 = None
S = Pulsed 20 Vdc or 17 mA
T = Solid-State Relay

Special Options
00 = None
Consult Factory

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

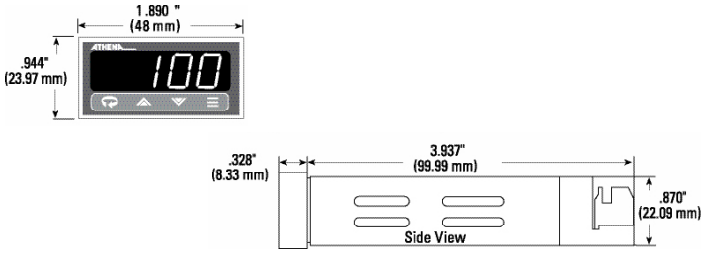
Outputs

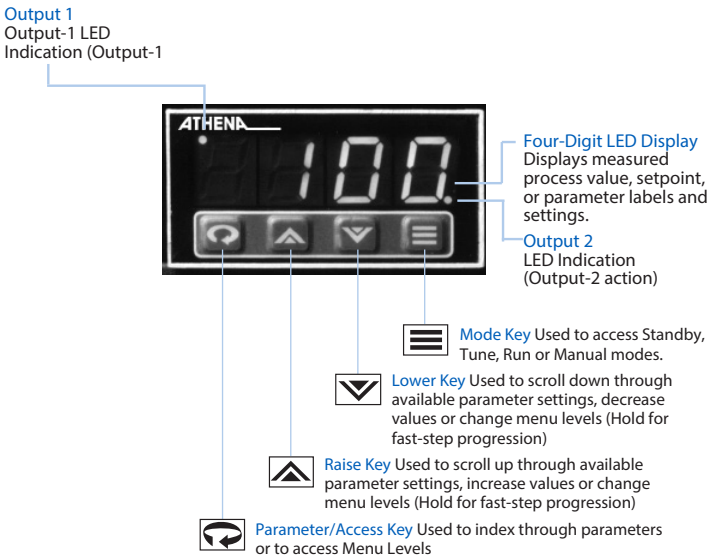
B	5 A/3 A (120/240 Vac), normally open
S	20 Vdc or 17 mA
T	1 A, Solid-state relay

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

Specifications subject to change without notice.





Athena Controls, Inc.
5145 Campus Drive, Plymouth Meeting, PA 19462 -1129 USA
Toll Free: 1.800.782.6776; T: 1.610.828.2490
F: 1.610.828.7084; Email: mktg@athenacontrols.com

ATHENA
A higher level of control