TEMPERATURE CONTROLS

ECONOMICAL CONTROL

BTC-4100, 7100, 8100, 9100

STANDARD
FUZZY LOGIC with PID AUTOTUNE
RAMP-to-SETPOINT
SOAK TIMER
AUTO/MANUAL
SECURITY LOCKOUT
UNIVERSAL INPUT - T/C, RTD, mA, V
POWER SUPPLY - 90-260VAC
UL, CSA, CE APPROVALS

OPTIONS
PID HEAT/PID COOL FUNCTION
(EXCEPT 9100)
RS485 COMMUNICATION
POWER SUPPLY - 11-28VAC/DC

MODEL CODE

BTC-

SPECIFICATIONS - BTC4100, 7100, 8100, 9100

1. INPUT
Thermocouple
Pt100 ohms RTD (DIN 43760/BS 1904 or JIS)
-10 to 60 mV configurable with input attenuation
User configurable
Accuracy
+/-2C for T/C, +0.2C for RTD, +0.05% for Linear input.
Cold Junction Comp
0.1C/°C ambient typical.
Input Impedance
10M ohms for T/C, 100K ohms for Linear Voltage,
2.7 Ohms for 0 (4)- 20 mA/
Sample Rate
100mS

2. CONTROL
Proportional Band
0.0-500.0°C (0.0-900.0°F)
Rest (Integral)
0-1000 Sec.
Rate (Derivative)
0-360 Sec.
Ramp Rate
0.0-500.0°C (0.0-900.0°F)/HR
Dwell
0-6550 minutes
On-Off
With adjustable hysteresis
Cycle Time
0-100.0 seconds
Control Action
Configurable for Direct (cooling) or Rev (Heating)

3. OUTPUT
Relay
2A/240VAC resistive.
Pulsed Voltage
Isolated 5 VDC 30mA Max.
Current
Isolated 0 (4) - 20 mA Max load 500 ohms.
Linear Volts
1-5, 0-5, 0-10VDC. MAX 100mA
Alarm Relay output, (SPST) 2A/240VAC resistive.

4. POWER
Rating
85 - 265 VAC 50/60Hz 5VA max

5. ENVIRONMENTAL
Operating Temp
0 - 50°C
Humidity
0-90%
Insulation
20M ohms minimum @ 500VDC
Protect
IP20

6. PHYSICAL DIMENSIONS
BTC9100
48mmW x 48mmH x 94mmD
BTC7100
72mmW x 72mmH x 79mmD
BTC8100
48mmW x 96mmH x 92mmD
BTC4100
96mmW x 96mmH x 65mmD
ECONOMICAL CONTROL

TEMPERATURE CONTROLS

STANDARD
FUZZY LOGIC with PID AUTOTUNE
RAMP-to-SETPOINT
SOAK TIMER
AUTO/MANUAL
SECURITY LOCKOUT
UNIVERSAL INPUT - T/C, RTD, mA, V
NEMA 4X - WATERPROOF (C21)
POWER SUPPLY - 90-260VAC
UL, CSA, CE APPROVALS

OPTIONS
ALARMS - 13 TYPES
RS 485 COMMUNICATION
POWER SUPPLY - 20-32VAC/DC
PID HEAT/PID COOL OUTPUT (C21)

MODEL CODE

BTC-

SPECIFICATIONS - C21, C92

1. INPUT
Thermocouple
RTD
Pt100 ohms RTD (DIN 43760/BS 1904 or JIS)
Range
User configurable
Accuracy
+/-0.2C for T/C, +0.05% for Linear input.
Cold Junction Comp
0.1% ambient typical.
Input Impedance
10M ohms for T/C, 100K ohms for Linear Voltage,
2.7 Ohms for 0 (4)-20 mA/
Excitation Current for RTD
0.2mA Max.
Sample Rate
200mS

2. CONTROL
Proportional Band
0.0-100.0%
Rest (Integral)
0-1000 Sec.
Rate (Derivative)
0-360 Sec.
Anti Rest Windup
Inhibit integral action outside Proportion Band
Ramp Rate
0.0-400.0C / HR.
Dwell
0-6550 minutes.
On-Off
With adjustable hysteresis
Cycle Time
0-99 seconds.
Control Action
Configurable for Direct (cooling) or Rev (Heating)

3. OUTPUT
Relay
5A/240VAC resistive.
Pulsed Voltage
Isolated 24 VDC 100mA Max.
Current
Isolated 0 (4) - 20 mA Max load 500 ohms.
Linear Volts
1-5, 0-5, 0-10VDC. MAX 100mA
Alarm
Relay output, (SPST) 10A/240VAC resistive.

4. POWER
Rating
85 - 265 VAC 50/60Hz 10VA max
11-28VAC/VDC 10VA

5. ENVIRONMENTAL
Operating Temp
-10 - 50C
Humidity
0- 90%
Insulation
20M ohms minimum @ 500VDC
RATING
NEMA 4X - C21
IP20 - C92

6. PHYSICAL DIMENSIONS
C21
48mmW x 24mmH x 111mmD
C92
96mmW x 48mmH x 127mmD