

ECONOMICAL CONTROL



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- [] [] [] [] [] [] []

SIZE	9100 - 48x48 (1/16 DIN) 7100 - 72x72 (1/8 DIN) 8100 - 96x48 (1/8 DIN) 4100 - 96x96 (1/4 DIN)
POWER	4 - 90-260VAC 5 - 11-32V AC/DC
INPUT	1 - UNIVERSAL INPUT + HBA + EI
OUTPUT 1	0 - NONE 1 - RELAY 2 - SSR DRIVE (5VDC) 3 - 4-20mA 5 - 0-10VDC

COMMUNICATION	0 - NONE 1 - RS-485 COMMUNICATION
ALARM 1 (N/A - BTC-9100)	0 - NONE 1 - RELAY-NO 2 - RELAY-NC
OUTPUT 2 (or AL1 - BTC-9100)	0 - NONE 1 - RELAY 2 - SSR DRIVE (5VDC) 3 - 4-20mA 5 - 0-10VDC

DUAL OUTPUT

FUZZY LOGIC PID AUTOTUNE

Rs485 COMMUNICATION

RAMP-to-SETPOINT

SPECIFICATIONS - BTC4100, 7100, 8100, 9100

1. INPUT

Thermocouple	J, K, T, E, B, R, S, N (IPTS68/DIN 43710)
RTD	Pt100 ohms RTD (DIN 43760/BS 1904 or JIS)
Linear Voltage (current)	-10 to 60 mV configurable with input attenuation
Range	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/ 100mS

2. CONTROL

Proportional Band	0.0-500.0C (0.0-900.0F)
Rest (Integral)	0-1000 Sec.
Rate (Derivative)	0-360 Sec.
Ramp Rate	0.0-500.0C (0.0-900.0F)/HR
Dwell	0-6550minutes.
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
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5. ENVIRONMENTAL

Operating Temp	0 - 50C
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



DIN RAIL MOUNT

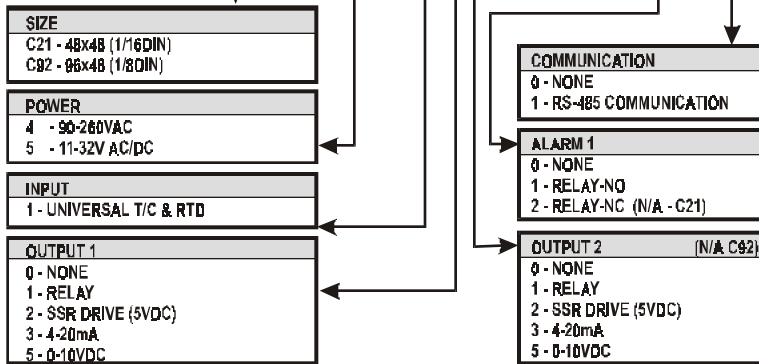
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- SECURITY LOCKOUT
- UNIVERSAL INPUT - T/C, RTD, mA, V
- NEMA 4X - WATERPROOF (C21)
- POWER SUPPLY - 90-260VAC
- UL, CSA, CE APPROVALS

OPTIONS

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

MODEL CODE



DUAL OUTPUT

**FUZZY LOGIC
PID AUTOTUNE**

Rs485 COMMUNICATION

**WATERPROOF
NEMA 4X (C21)**

RAMP-to-SETPOINT

SPECIFICATIONS - C21, C92

1. INPUT

Thermocouple	J, K, T, E, B, R, S, N (IPTS68/DIN 43710)
RTD	Pt100 ohms RTD (DIN 43760/BS 1904 or JIS)
Range	User configurable
Accuracy	+/-2C for T/C, +/-0.2C for RTD, +/-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