1/8 DIN Digital Setting Temperature Controller BTC-805, BTC-803

FEATURES

- Build-in Laser Trim ASIC
- Easy to chang range
- ON-OFF or time proportional selectable
- Compact, only 65mm in depth
- Wide selection of control output option
- Wide selection of ranges
- Sensor break protection
- Alarm option
- Low cost
- Safety: UL, CSA
- EMC, LVD: CE

SPECIFICATIONS

INPUT

Thermocouple (TIC) : Type J, K
RTD : 3-wires PT 100 ohms, DIN or JIS
Range : See ordering information
Accuracy : ±2% of span (BTC-803),
±1% of span (BTC-805)
Cold Junction Compensation : ±0.1°C / 1°C
Rejection of RTD Load Resistance =
(0.1°C - 0.025% of PV reading) / ohm
Sensor Break Protection : Upscale
External Resistance : 100 ohms max.
Normal Mode Rejection : 60 dB
Common Mode Rejection : 120 dB
Sample Rate : 3 times / second

CONTROL

Proportional Band : 2.2% of span
ON-OFF Hysteresis : 1% of span
Cycle Time : 20 seconds for relay output, 1 second for pulsed voltage output, 0.02 second for linear current or voltage output.
Control Action : Reverse action

OUTPUT

Control : Relay : 5A 240V max. resistive load
Pulsed Voltage : 20mA / 32VDC max.
Current : 4-20mA, 0-20mA, max. load 500 ohms
Voltage : 0- 10V, min. load 500k ohms
Alarm : Relay output, 2A / 240VAC max. resistive load

ADJUSTMENT

Set Point : 3-digit or 4-digit switch
Alarm : Deviation alarm, adjustable ±10% of span
Manuel Reset : Adjustable 2.6% of span
Resolution of set point : 1 LSD (Least Significant Digit)
Accuracy of set point : ±1 % of span
Repeatability of set point : ±1 LSD

INDICATION

Process Indicator : BTC-803: Deviation meter
BTC-805: 0.4" red LED display
Status Indicator : ON red LED Lamp
Alarm Indicator : ON red LED Lamp

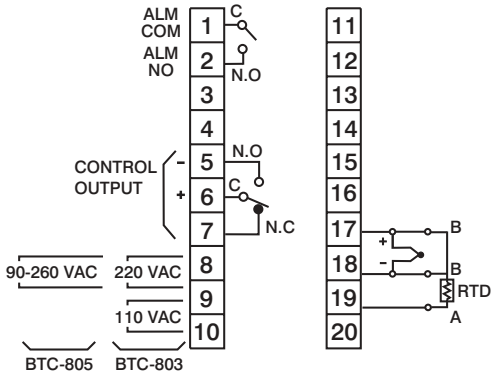
POWER

Rating : BTC-803 : 100-130VAC , 50 / 60Hz or 200-240VAC, 50/60Hz
BTC-805 : 90-240VAC, 50/60Hz
Consumption : Less than 5VA

ENVIRONMENTAL & PHYSICAL

Operating Temperature : 0-50°C
Humidity : 0-90% RH (non-condensing)
Insulation : 20M ohms min. (50OVDC)
Breakdown : AC 200OV, 50 / 60Hz, 1 minute
Vibration : 10-55Hz. amplitude l mm
Shock : 200M/S^2 (20g)
Weight : BTC-803: 270 grams, BTC-805: 220 grams
Dimension : 48 (W) X 96 (H) X 65mm (depth behind panel)
Panel Cutout : 45 X 92mm

CONNECTION DIAGRAM



ORDERING INFORMATION

Model No. — □ □ □ □ □ □ □ □
(1) (2) (3) (4) (5) (6) (7) (8)

(1) Power Input

For BTC-803

3	100-130VAC, 50/60Hz / 200-240VAC, 50/60Hz
9	Other

For BTC-805

4	90-264VAC, 50/60Hz
9	Other

(2) Signal Input

1	Type J thermocouple	4	PT100 ohm JIS
2	Type K thermocouple	9	Other
3	PT100 ohm DIN		

(3) Range Code

Code	Range	Code	Range
2	-199 ~ 199 °C	K	-399 ~ 399 °F
3	-99.9 ~ 99.9 °C	L	-199 ~ 199 °F
4	-99 ~ 99 °C	M	-99.9 ~ 99.9 °F
5	-49.9 ~ 49.9 °C	N	-99 ~ 99 °F
6	0 ~ 49.9 °C	P	0 ~ 99 °F
7	0 ~ 99 °C	Q	0 ~ 99.9 °F
8	0 ~ 99.9 °C	R	0 ~ 199 °F
A	0 ~ 199 °C	S	0 ~ 399 °F
B	0 ~ 199.9 °C	T	0 ~ 599 °F
C	0 ~ 299 °C	U	0 ~ 799 °F
D	0 ~ 399 °C	V	0 ~ 999 °F
E	0 ~ 499 °C	W	0 ~ 1999 °F
F	0 ~ 599 °C	Y	0 ~ 499 °F
G	0 ~ 799 °C	Z	0 ~ 1200 °F
H	0 ~ 999 °C		
J	0 ~ 1200 °C		

(4) Control Mode

Code	Mode	J11
1	ON-OFF	Short
2	P (proportional)	Open

(5) Output I

1	Relay, rated 5A/240VAC resistive
2	Pulsed voltage to drive SSR, rated 20mA/24V
3	4-20mA linear, max. load 500 ohms
4	0-20mA linear, max. load 500 ohms
5	0-10V linear, min. load 500K ohms
9	Other

(6) Output II

0	None

(7) Alarm

0	None
1	Deviation alarm relay output, rated 2A/240vac max. resistive load

(8) Communication

0	None

FUNCTION OF SOLDER GAP J1~J11

Location	Short	Open	Function
J1	o		T/C Type J or K
"		o	PT 100 ohms DIN or JIS
J2		o	Reverse control
"	o		Forward control
J3	o		100 °C span
J4	o		200 °C span
J5	o		300 °C span
J6	o		400 °C span
J7	o		460 °C span
J8	o		600 °C span
J9	o		800 °C span
J10	o		1200 °C span
J11	o		ON-OFF control
"		o	Time proportional control

FUNCTION OF SOLDER GAP J12~J13

J12	J13	Cycle time	Function
Short	Short	20 Secs.	Relay output
Open	Short	1 Sec.	SSR drive
Open	Open	0.02 Sec.	Linear current or voltage output

FUNCTION OF SOLDER GAP J14~J15

J14	J15	Function
Short	Open	Positive Setting
Open	Open	Positive and Negative setting
Open	Short	Negative setting

* Please refer detailed conversion from full technical information