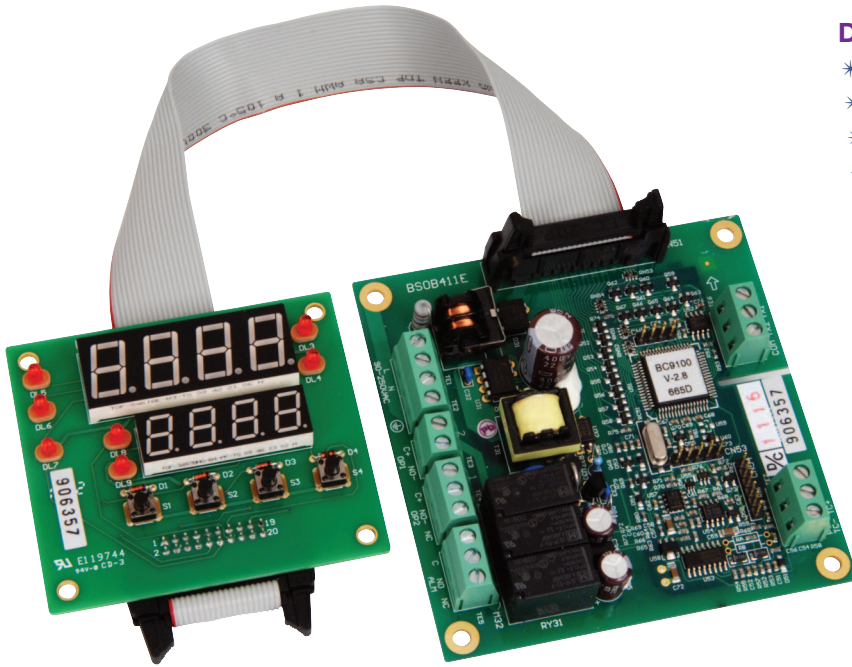


### Model TBC-41 Board PID Temperature Control



*Board Control Fuzzy Logic PID,  
Configurable for 4 Programmable Outputs!*

#### Design Features

- \* Easy to use high performance at a low price
- \* Fuzzy Logic PID Autotune heat and cool control
- \* Fast A-D sampling rate (5 samples/second)
- \* Universal input, field configurable (Type J T/C default, PT100, mA, V) with high accuracy 18-bit D-A
- \* Analog output (linear current or voltage) uses high accuracy 15-bit D-A Converter
- \* Optional RS-232 or RS-485 communications interface
- \* Universal input power— 90-250 VAC 50/60HZ or 11-26 VAC/VDC
- \* Programming port provided on board
- \* Supports manual control & auto-tune functions
- \* Wide variety of alarm mode selections
- \* Lockout Protection
- \* Bumpless transfer
- \* Soft-start ramp and dwell timer
- \* Bright 0.55" (14 mm) red LED process display
- \* Available from Stock
- \* Agency Approvals:



#### Ordering Code:

TBC-41 -  1  2  3  4  5  6  7

#### Power Input BOX 1

- 4 = 90-250 VAC, 50-60 Hz
- 5 = 11-26 VAC / VDC

#### Signal Input — BOX 2

- 1 = Thermocouple: J (default), K, T, E, B, R, S, N, L, RTD PT100 DIN
- 2 = 0-60mV
- 3 = 0-1 VDC
- 4 = 0-5 VDC
- 5 = 1-5 VDC
- 6 = 4-20 mA
- 7 = 0-20 mA
- 8 = 0-10 VDC
- 9 = Other

#### Output 1 BOX 3

- 1 = Relay: 2A / 240 VAC
- 2 = Pulse DC for SSR drive: 5 VDC (30 mA max)
- 3 = Isolated 4-20 mA (default), 0-20 mA
- 4 = Isolated VDC, 1-5 (default), 0-5
- 5 = Isolated VDC, 0-10
- 6 = Triac-SSR output 1A / 240 VAC
- C = Pulse DC for SSR drive: 14 VDC (40 mA max)

#### Output 2 BOX 4

- 0 = None
- 1 = Relay: 2A / 240 VAC Form A
- 2 = Pulse DC for SSR drive: 5 VDC (30 mA max)
- 3 = Isolated 4-20 mA (default), 0-20 mA
- 4 = Isolated VDC, 1-5 (default), 0-5
- 5 = Isolated VDC, 0-10
- 6 = Triac-SSR output 1A / 240 VAC
- 7 = Isolated 24V @ 25 mA DC, Output Power Supply
- 8 = Isolated 12V @ 40 mA DC, Output Power Supply
- 9 = Isolated 5V @ 80 mA DC, Output Power Supply
- C = Pulse DC for SSR drive: 14 VDC (40 mA max)

#### Alarm BOX 5

- 0 = None
- 1 = Relay: 2A / 240 VAC, Form C

#### Communication BOX 6

- 0 = None
- 1 = RS-485 Interface
- 2 = RS-232 Interface
- 3 = Retransmission 4-20 mA (default), 0-20 mA
- 4 = Retransmission 1-5 VDC (default), 0-5 VDC
- 5 = Retransmission 0-10 VDC

#### Display Board and Cable BOX 7

- 0 = None
  - 3 = With Display Board and 12" (300 mm) Cable (default)
- Consult Tempco for other cable lengths.

**WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).