

### Model TEC-7100 3/16 DIN Temperature Controller



**Configurable for 4 Programmable Outputs and optional NEMA 4X/IP65 Front Panel!**

Agency Approvals:



#### Design Features

- \* 3/16 DIN size – 72 mm × 72 mm
- \* Fuzzy Logic PID Autotune heat and cool control
- \* Short panel depth – only 2-9/16" (65 mm) required
- \* Universal input, field configurable (Type J T/C default, PT100, mA, V) with high accuracy 18-bit D-A
- \* Highly versatile – 6 types of inputs available
- \* Output 2 can be used for cooling function
- \* Universal input power – 90-250 VAC or 11-26 VAC/VDC
- \* Optional NEMA 4X/IP65 front panel
- \* Bumpless transfer to manual mode during sensor failure
- \* Wide variety of alarm mode selections
- \* Optional RS-485 communications interface
- \* Bright 0.40" (10 mm) red LED process display  
0.31" (8 mm) green LED setpoint display
- \* High performance at a low price

#### Power Input BOX 1

- 4 = 90-250 VAC
- 5 = 11-26 VAC / VDC
- 9 = Other

Hardware Code: TEC-7100-



A Part Number based on the hardware code and any software pre-programming will be issued at time of order.

#### Signal Input— Universal, can be programmed in the field for item 5 or 6 BOX 2

- 5 = Thermocouple: \*J, K, T, E, B, R, S, N, L  
0-60mV
  - 6 = RTD: \*PT100 DIN, PT100 JIS
  - 7 = 0-1 VDC
  - 8 = \*0-5, 1-5 VDC
  - A = 0-10 VDC
  - B = \*4-20, 0-20 mA
  - 9 = Other
- \* indicates default value

#### Alarm BOX 5

- 0 = None
- 1 = Relay: 2A / 240 VAC, SPDT
- 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, 0-1
- 5 = Isolated, VDC, 0-10
- 6 = Triac-SSR output 1A / 240 VAC
- C = Pulse DC for SSR drive: 14 VDC (40 mA max)
- 9 = Other

#### Communication BOX 6

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

#### Output 2 BOX 4

- 0 = None
- 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, 0-1
- 5 = Isolated VDC, 0-10
- 6 = Triac-SSR output 1A / 240 VAC
- 7 = Isolated 20V @ 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)
- A = Other

#### NEMA 4X / IP65 BOX 7

- 0 = No
- 1 = Yes



**Note:** Detailed information on features common to digital microprocessor-based TEC temperature controls and the complete Table of Input Range and Accuracy can be found on page 13-46.