

# Temperature Controllers



Models TEC-410 & TEC-910

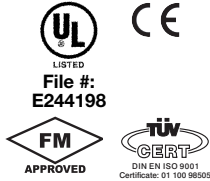
## Model TEC-410 1/4 DIN & Model TEC-910 1/16 DIN High Limit Temperature Controls



*FM Approved  
High Limit Control  
with External Reset!*



Agency Approvals 410



Agency Approvals 910



### Common Design Features

- \* High Limit Control protects personnel, equipment and materials from over-temperature process conditions
- \* Universal programmable thermocouple sensor input
- \* Versatile – 2 types of outputs available
- \* Highly accurate universal input with 18 bit analog to digital converter
- \* FM approved for electric & gas heat systems
- \* Bright 0.40" (10 mm) red LED process display
- \* Short panel depth required
- \* Output 2 can be programmed as output or input

### TEC-410 Design Features

- \* Universal input power – 90-250 VAC or 11-26 VAC/VDC
- \* Event input for remote reset
- \* Two programmable outputs
- \* Optional RS-485 or RS-232 communications interface
- \* Optional retransmission
- \* Optional NEMA 4X/IP65 front face

### TEC-910 Design Features

- \* Universal input power – 90-264 VAC or 11-26 VAC/VDC
- \* Optional event input for remote reset
- \* Optional RS-485 communications interface
- \* Output 2 can be programmed as output or input



**Note:** The use of solid state relays/contactors are highly discouraged for high limit safety circuits as solid state devices can fail in the closed position.

**Hardware Code: TEC-410-**

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

**Hardware Code: TEC-910-**

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

#### Power Input BOX 1

- 4** = 90-250 VAC (TEC-410)  
90-264 VAC (TEC-910)
- 5** = 11-26 VAC / VDC

#### Signal Input – Universal, can be programmed in the field BOX 2

- 1** = Input 1 – Universal input (factory default = TC type J)  
Thermocouple: J, K, T, E, B, R, S, N, L, C, P  
mV: 0 to 60
- 9** = Other

#### Output 1 BOX 3

- 1** = Relay: 2A / 240 VAC, Form C
- 6** = Triac-SSR output 1A / 240 VAC
- 9** = Other

#### Output 2 BOX 4

##### For TEC-410

- 0** = None
- 1** = Relay: 2A / 240VAC, Form C
- 6** = Triac-SSR output 1A / 240VAC
- 7** = Isolated 20V @ 25mA DC, Output Power Supply
- 8** = Isolated 12V @ 40mA DC, Output Power Supply
- 9** = Isolated 5V @ 80mA DC, Output Power Supply

##### For TEC-910

- 0** = None
- 1** = Form A Relay: 2A / 240 VAC
- 6** = Triac Output 1A / 240VAC, SSR
- 7** = Isolated 20V @ 25mA DC Output Power Supply
- 8** = Isolated 12V @ 40mA DC Output Power Supply
- 9** = Isolated 5V @ 80mA DC Output Power Supply
- A** = RS-485
- B** = Event Input
- D** = Retransmit 4-20mA/0-20mA
- E** = Retransmit 1-5V/0-5V
- F** = Retransmit 0-10V
- H** = Special order

#### Communications BOX 5 (TEC-410 only)

- 0** = None
- 1** = RS-485 Interface
- 2** = RS-232 Interface
- 3** = Retransmission 4-20 mA, 0-20 mA
- 4** = Retransmission 1-5 VDC, 0-5 VDC
- 5** = Retransmission 0-10 VDC
- 9** = Other

#### Mounting Option BOX 6 (TEC-410 only)

- 0** = Standard Mounting, IP50
- 1** = NEMA 4X/IP65



**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.