

## Bulletins 900-TC8 and 900-TC16 Wiring Terminals — General Guidelines

- The voltage output (SSR control output) is not electrically isolated from the controller's internal circuits. When using a grounded thermocouple, do not connect the control output terminals to earth ground. If the control output terminals are connected to earth ground, errors will occur in the measured temperature values as a result of ground loop leakage current.
- Standard insulation ratings exist between any of the following: power supply terminals, input terminals, output terminals, and communication terminals. If reinforced insulation is required, provide additional insulation, such as spacial distance or material insulation, as defined by IEC 60664.
- Separate input leads and power lines to protect the Bulletin 900-TC8/900-TC16 and its lines from external noise.
- Solderless lugs are recommended when wiring to the Bulletin 900-TC8/900-TC16 wire terminals. However, if lugs are not used, the controller's screw terminals will accept two solid or stranded wires (no mixing) 14...24 AWG.
- Tighten the terminal screws using a torque 0.74...0.90 N•m.
- Use a 7.2 mm open or round solderless lug for M3.5 screws.
- Never attempt to remove the controller terminal block from the controller case. Damage may result.

**Note:** Input power supply available: 100...240 V AC, or 24 V AC/DC

## Bulletin 900-TC8 — Wiring Terminals

- 100 to 240 VAC
- 24 VAC/VDC (no polarity)

**Control output 1**

Relay output  
250 VAC, 5 A  
(resistive load)

Voltage output  
(for driving SSR)  
12 VDC, 40 mA

Current output  
0 to 20 mA DC  
4 to 20 mA DC  
Load: 600 Ω max.

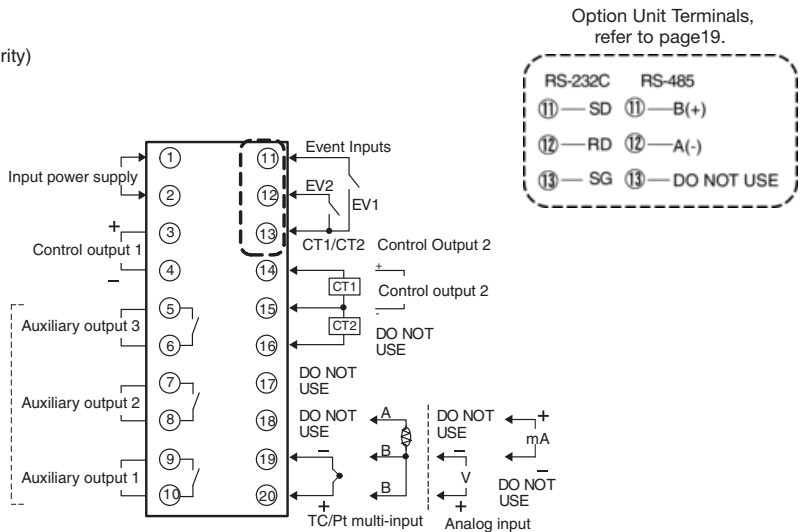
**Control output 2**

Voltage output  
(for driving SSR)  
12 VDC, 21 mA

Long-life relay output  
250 VAC, 3 A  
(resistive load)

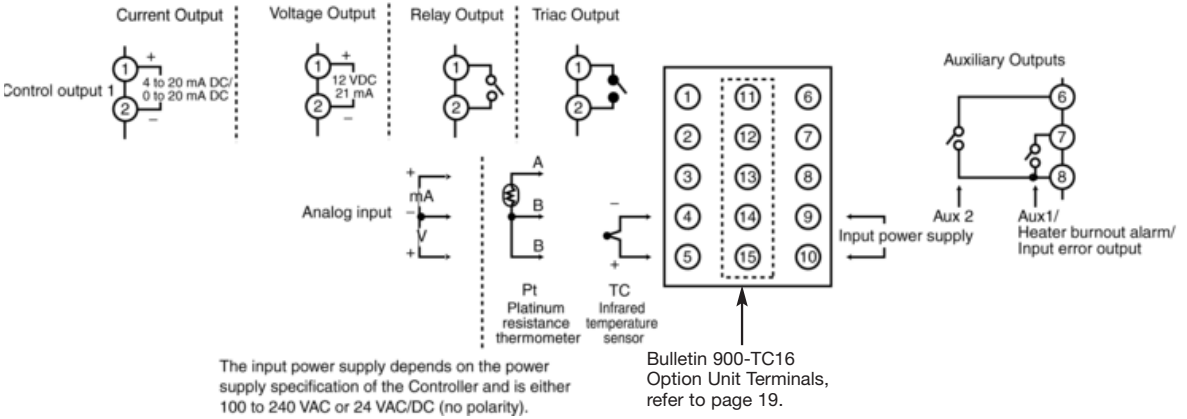
**Auxiliary output  
1, 2, 3**

Relay outputs  
250 VAC, 3 A  
(resistive load)



# Single-Loop Temperature/Process Controller

## Bulletin 900-TC16 — Wiring Terminals



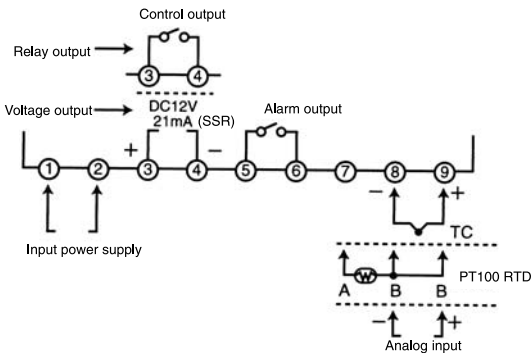
## Bulletin 900-TC32 — Wiring Terminals

### Wiring Terminals — General Guidelines

- The voltage output (SSR control output) is not electrically isolated from the controller's internal circuits. When using a grounded thermocouple, do not connect the control output terminals to earth ground. If the control output terminals are connected to earth ground, errors will occur in the measured temperature values as a result of ground loop leakage current.
- Standard insulation ratings exist between any of the following: power supply terminals, input terminals, output terminals, and communication terminals. If reinforced insulation is required, provide additional insulation, such as spatial distance or material insulation, as defined by IEC 60664.
- Separate input leads and power lines to protect the Bulletin 900-TC8/900-TC16 and its lines from external noise.

**Note:** Input power supply available: 100...240 V AC, or 24 V AC/DC

## Bulletin 900-TC32

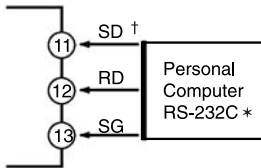


## Wiring Terminals, Continued/Option Units

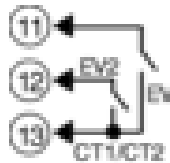
### Option Units

#### Bulletin 900-TC8 — Option Unit Wiring

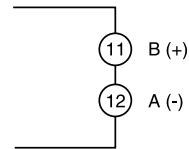
Cat. No. 900-TC8232  
RS-232C Communications Unit  
(Series B) §



Cat. No. 900-TC8EIM  
Event Input Unit



Cat. No. 900-TC8COM  
RS-485 Communications Unit  
(Series B) ‡§



\* With 900BuilderLite Software

‡ 900-CP1x or equivalent cable provides the physical connection between the PC and controller.

‡ Typically, an RS-232 to RS-485 converter such as the Cat. No. 900-CONVZ25 (see page 23) will be required between the personal computer (with 900Builder software) and the Bulletin 900-TCx controller. In that case, a 900-CPx or equivalent cable provides the physical connection between the converter and the PC. RS-485 allows linking up to 31 controllers with a single personal computer.

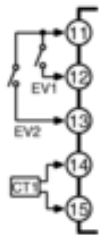
§ Series B provides baud rates up to 57.6 K bps.

#### Bulletin 900-TC16 — Option Unit Wiring

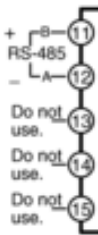
900-TC16NCOM  
Communications/  
CT §



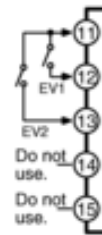
900-TC16NEIM  
Event inputs/  
CT



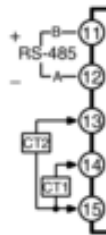
900-TC16NACCOM  
Communications §



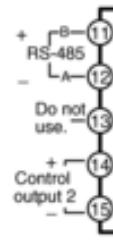
900-TC16NACEIM  
Event inputs



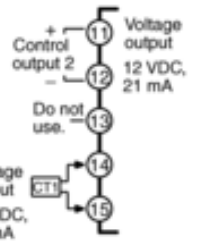
900-TC16NCOMP3  
Communications/  
Two CTs §



900-TC16NCOMV2  
Communications/  
Control output 2 §



900-TC16PIV2  
Control output 2/  
CT



Attach the appropriate terminal labels.

§ Series B provides baud rates up to 57.6 K bps.