



# TWS Series



TWS

## SPECIFICATIONS

Input Power	Class 2; 15 to 30 Vdc or 24 Vac 50/60Hz, 100 mA max.
Outputs, Analog	Switch-selectable 4 to 20 mA (clipped and capped)/0 to 10 V/0 to 5 Vdc (switch affects all outputs)
Outputs, Relay (Relay models only)	2 Form C (SPDT), 1 A 30 Vdc, resistive, 30 W max.
Physical	UL 94V-0 fire retardant ABS
TEMPERATURE	
Accuracy	±0.5 °C (±1 °F)
Scaling	10 to 35 °C (50 to 95 °F) or 0 to 50 °C (32 to 122 °F), menu selectable
Calibration Offset	Adjustable ±10° in 0.1° (C or F) increments
Setpoint Range	Minimum to full scale in 1° (C or F) increments
Hysteresis (Deadband)	1 to 10 °F in 1 °F increments
WARRANTY	
Limited Warranty	5 years

## INDEPENDENT RH, TEMP, AND ANALOG SETPOINT OUTPUTS

### FEATURES

- Independent heat/cool (TWS relay) or analog setpoint outputs (TWS analog) provide application flexibility
- LCD for local display of readings and setup values...easy visibility under any lighting conditions
- Offset function adjusts calibration offsets for temperature
- Switch-selectable 4 to 20 mA or 0 to 5/0 to 10 Vdc analog outputs
- Semiconductor temperature sensor can be field calibrated

### APPLICATIONS

- Hospitals and operating rooms, pharmaceutical labs
- Clean rooms
- Food processing plants
- Environmental testing facilities and other institutional applications

### DESCRIPTION

All **TWS Series** institutional grade temperature transmitters are field-programmable and designed to satisfy the demanding requirements of pharmaceutical labs, hospitals, science labs, and other exacting applications. Internal jumpers control access to a feature which allows field adjustment of calibration offsets. Tampering can be discouraged by setting a jumper to disable keypad program functions.

#### Analog Output

Analog output models feature a keypad to make adjusting temperature setpoint values easy. They are unique in reporting the setpoint values back to a control system by means of 4 to 20 mA or 0 to 5/0 to 10 Vdc (output selected by slide-switch) signals.

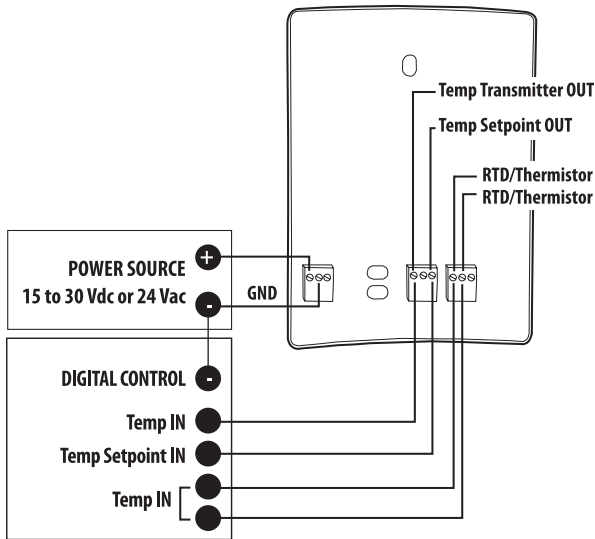
#### Setpoint Relay

The TWS Series setpoint relay models measure temperature and offer thermostat functionality. Two separate relays can be configured to control heat/cool in thermostat mode.

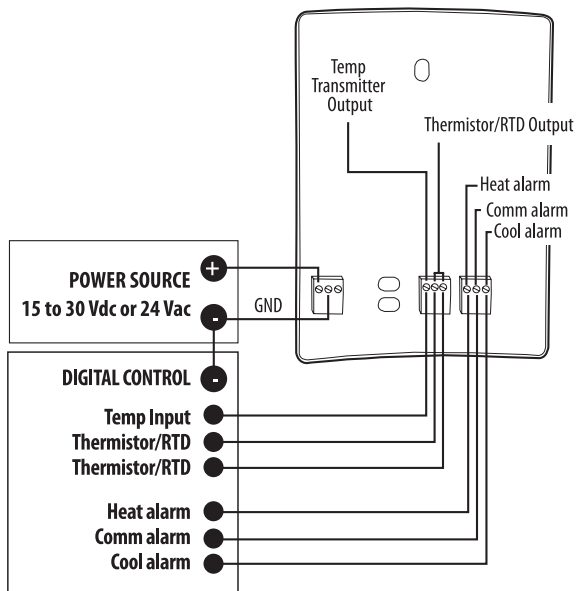


## WIRING DIAGRAMS

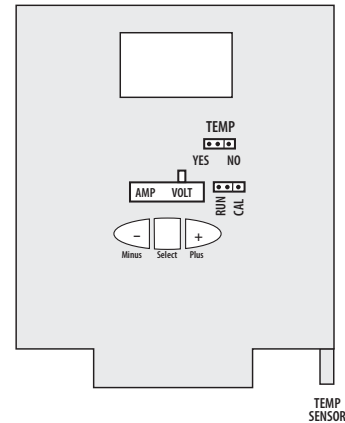
Analog Models



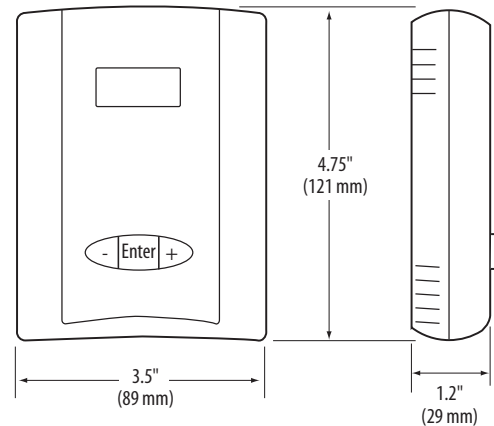
Relay Models



## CONFIGURATION



## DIMENSIONAL DRAWING



## ORDERING INFORMATION



Setpoint	Cal Certificate	Option
TWS <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A = Analog R = Relay	S = CE (standard) 0 = None 1 = 1 point Cal Validation 2 = 2 point Cal Validation	Blank = None B = 100R Platinum, RTD C = 1k Platinum, RTD D = 10k T2, Thermistor E = 2.2k, Thermistor F = 3k, Thermistor G = 10k CPC, Thermistor H = 10k T3, Thermistor J = 10k Dale, Thermistor K = 10k w/11k shunt, Thermistor M = 20k NTC, Thermistor N = 1800 ohm TAC, Thermistor Q = 1uA/C, Linitemp R = 10k US, Thermistor S = 10k 3A 221, Thermistor T = 100k, Thermistor U = 20k "D", Thermistor W = 10k T2 high accuracy, Thermistor Y = 10k T3 high accuracy, Thermistor Z = 10k E1, Thermistor

**Example:**  
TWS  A  S  1  C

TWS models include standard temperature transmitter outputs. Optional RTDs and thermistors are available as shown for TWSA models.

\*The CE mark indicates RoHS2 compliance. Please refer to the CE Declaration of Conformity for additional details.

## ACCESSORIES

Replacement cover (AA53)  
Replacement housing (AA55)

