Wall Mount Temperature Transmitter with Thermostat Functions

TWS Series

TWS

SPECIFICATIONS

5 Year Warranty

Input Power	Class 2; 15-30VDC or 24VAC 50/60Hz, 100mA max.
Outputs, Analog	Switch-selectable 4-20mA (clipped and capped)/0-10V/0-5VDC (switch affects all outputs)
Outputs, Relay (Relay models only)	2 Form C (SPDT), 1A 30VDC, resistive, 30W 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

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 4-20mA or 0-5/0-10VDC analog outputs*
- *Semiconductor temperature sensor can be field calibrated*

APPLICATIONS

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

DESCRIPTION

All **TWS Series** institutional grade temperature transmitters are field-programmable & are 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.
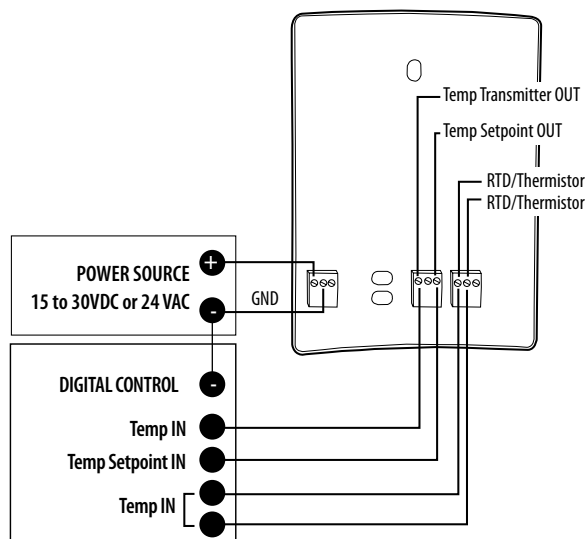
Analog Output
Analog output models feature a keypad to make adjusting temperature setpoint values easy. They are unique in reporting the setpoint values back to a control system by means of 4-20mA or 0-5/0-10VDC (output selected by slide-switch) signals.
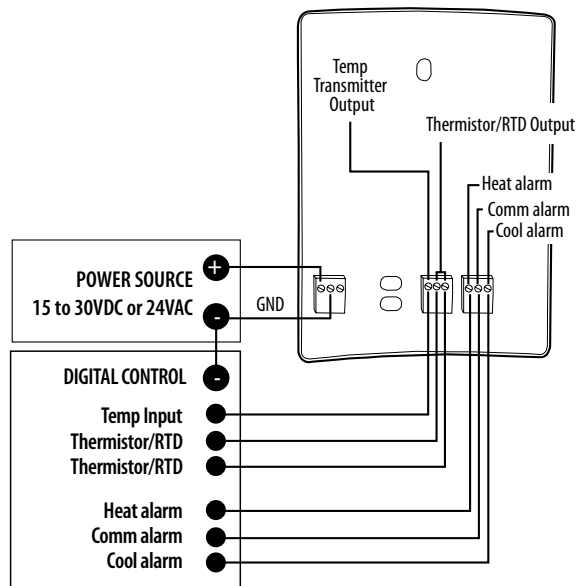
Setpoint Relay
The TWS Series setpoint relay models measure temperature and offer thermostat functionality. Two separate relays can be configured to control heat/cool in thermostat mode.
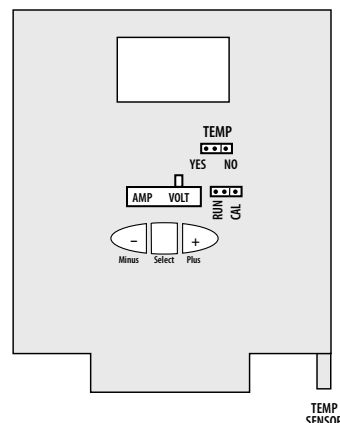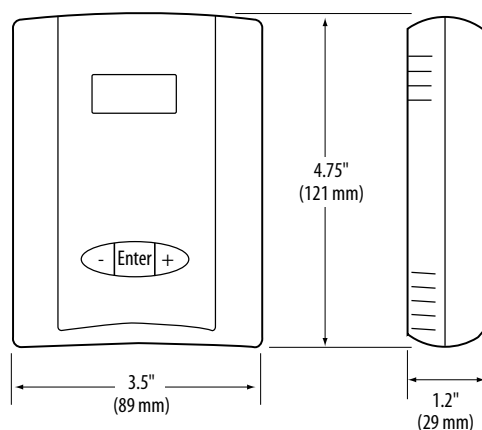
WIRING EXAMPLES

Analog Models

Temp Transmitter OUT

Temp Setpoint OUT

RTD/Thermistor
RTD/Thermistor

POWER SOURCE
15 to 30VDC or 24 VAC
+
–
GND

DIGITAL CONTROL –

Temp IN

Temp Setpoint IN

Temp IN

Relay Models

Temp Transmitter Output

Thermistor/RTD Output

Heat alarm
Comm alarm
Cool alarm

POWER SOURCE
15 to 30VDC or 24VAC
+
–
GND

DIGITAL CONTROL –

Temp Input
Thermistor/RTD
Thermistor/RTD

Heat alarm
Comm alarm
Cool alarm

CONFIGURATION

TEMP
YES   NO
AMP   VOLT   RUN CAL
–   +
Minus Select Plus

TEMP SENSOR

DIMENSIONAL DRAWING

- Enter +

4.75"
(121 mm)

3.5"
(89 mm)

1.2"
(29 mm)

ORDERING INFORMATION

$C \in$

	Setpoint		Cal Certificate			Option
TWS	☐	**S**	☐			☐

A = Analog
R = Relay

= 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.

ACCESSORIES

Replacement cover (AA53)
Replacement housing (AA55)

AA53   AA55