Wall Mount Temperature Sensors

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DESCRIPTION

These wall mounted temperature sensors feature a discreet appearance combined with high accuracy and reliability. Aesthetically pleasing in any interior environment. Flexible mounting options include flush and single-gang for ease of installation.

Class	Pt RTD		THERMISTOR										
Type	100 Ohm	1000 Ohm	2.2k	3k	10k Type 2	10k Type 3	10k Dale	10k 3A221	10k "G" US	20k	20k "D"	100k	10k Type 2	10k Type 3
Accuracy	±0.3°C	±0.3°C	±0.2°C	±0.2°C	±1.0°C	±0.2°C	±0.2°C	±1.1°C	±0.2°C	Consult	Consult	Consult	±0.1°C 20/70°C	±0.1°C
	0.0385 curve	0.0385 curve	0/70°C	0/70°C	-50/150°C	0/70°C	-20/70°C	0/70°C	0/70°C	Factory	Factory	Factory	±0.2°C 0/20°C	0/70°C
Temp. Response*	PTC	PTC	NTC	NTC	NTC	NTC	NTC	NTC	NTC	NTC	NTC	NTC	NTC	NTC
													High Accuracy	

*PTC: Positive Temperature Coefficient
*NTC: Negative Temperature Coefficient

STANDARD RTD AND THERMISTOR VALUES (Ohms Ω)

°C	°F	100 Ohm	1000 Ohm	2.2k	3k	10k Type 2	10k Type 3	10k Dale	10k 3A221	10k "G" US	20k NTC	20k "D"	100k	10k Type 2	10k Type 3
-50	-58	80.306	803.06	154,464	205,800	692,700	454,910	672,300	-	441,200	1,267,600	-	-	692,700	454,910
-40	-40	84.271	842.71	77,081	102,690	344,700	245,089	337,200	333,562	239,700	643,800	803,200	3,366,000	344,700	245,089
-30	-22	88.222	882.22	40,330	53,730	180,100	137,307	177,200	176,081	135,300	342,000	412,800	1,770,000	180,100	137,307
-20	-4	92.160	921.60	22,032	29,346	98,320	79,729	97,130	96,807	78,910	189,080	220,600	971,200	98,320	79,729
-10	14	96.086	960.86	12,519	16,674	55,790	47,843	55,340	55,252	47,540	108,380	122,400	553,400	55,790	47,843
0	32	100.000	1000.00	7,373	9,822	32,770	29,588	32,660	32,639	29,490	64,160	70,200	326,600	32,770	29,588
10	32	103.903	1039.03	4,487	5,976	19,930	18,813	19,900	19,901	18,780	39,440	41,600	199,000	19,930	18,813
20	68	107.794	1077.94	2,814	3,750	12,500	12,272	12,490	12,493	12,260	24,920	25,340	124,900	12,500	12,272
25	77	109.735	1097.35	2,252	3,000	10,000	10,000	10,000	10,000	10,000	20,000	20,000	100,000	10,000	10,000
30	86	111.673	1116.73	1,814	2,417	8,055	8,195	8,056	8,055	8,194	16,144	15,884	80,580	8,055	8,195
40	104	115.541	1155.41	1,199	1,598	5,323	5,593	5,326	5,324	5,592	10,696	10,210	53,260	5,323	5,593
50	122	119.397	1193.97	811.5	1,081	3,599	3,894	3,602	3,600	3,893	7,234	6,718	36,020	3,599	3,894
60	140	123.242	1232.42	561.0	747	2,486	2,763	2,489	2,486	2,760	4,992	4,518	24,880	2,486	2,763
70	158	127.075	1270.75	395.5	527	1,753	1,994	1,753	1,751	1,990	3,512	3,100	17,510	1,753	1,994
80	176	130.897	1308.97	284.0	378	1,258	1,462	1,258	1,255	1,458	2,516	2,168	12,560	1,258	1,462
90	194	134.707	1347.07	207.4	-	919	1,088	917	915	1,084	1,833	1,542	9,164	919	1,088
100	212	138.506	1385.06	153.8	-	682	821	679	678	816.8	1,356	1,134	6,792	682	821
110	230	142.293	1422.93	115.8	-	513	628	511	509	623.6	1,016	816	5,108	513	628
120	248	146.068	1460.68	88.3	-	392	486	389	388	481.8	770	606	3,894	392	486
130	266	149.832	1498.32	68.3	-	303	380	301	299	376.4	591	456	3,006	303	380
Sensor Codes		B	C	E	F	D	H	J	S	R	M	U	T	W	Y

To compute Linitemp Temperature:

2-Wire version (1µA/°C)
µA reading - 273.15=Temperature in °C
3-Wire version (10mV/°C)
mV reading/10 - 273.15 = Temperature in °C

SPECIFICATIONS (TE)

5 Year Warranty

Wiring	22 AWG; 2-wire: RTD Thermistor, 4-20mA; 3-wire: Voltage output models
Housing	Black or white ABS plastic

Linitemp:

Input Power	5 to 30VDC
Output	1µA/°C or 10mV/°C
Operating Temperature	-25° to 105°C (-13° to 221°F)

Accuracy:

Calibration Error	1.5°C (2.7°F) typical; 2.5°C (4.5°F) max. at 25°C (77°F)*
Error over Temperature	1.8°C (3.24°F) typical; 3.0°C (5.4°F) max. over 0° to 70°C (32° to 158°F) range; 2.0°C (3.6°F) typical, 3.5°C (6.3°F) max. over -25° to 105°C (-13° to 221°F) range

**Room temperature error documented on each unit.*

SPECIFICATIONS (TW/TEA)

Input Power:

TW Model:	12 to 24VAC/DC nominal, 30VDC maximum, 30mA maximum
TEA Model:	4-20mA mode; loop powered 24VDC only; 0-10V, 3-wire, observe polarity; 12-30DC; 0-5V, 3-wire, observe polarity; 24VAC, 12-30DC
Analog Output (TEA 4-20 mA model)	2-wire, polarity insensitive (clipped and capped)
Temp Output (TW Model)	2-wire, loop powered 4-20mA or 3-wire, 0-5V/0-10VDC
Sensor Type	Solid-state, integrated circuit (transmitter)
Accuracy	±0.5°C (±1°F) typical

Ranges:

TW Model:	10° to 35°C (50° to 95°F)/0° to 50°C (32° to 122°F) jumper-selectable
TEA Model:	10° to 35°C (50° to 95°F)

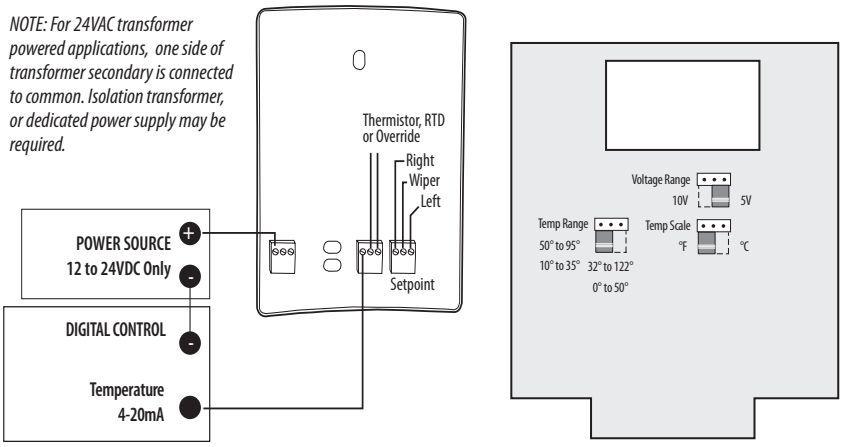
RTD/Thermistors in wall packages are not compensated for internal heating of product.

VERIS INDUSTRIES™

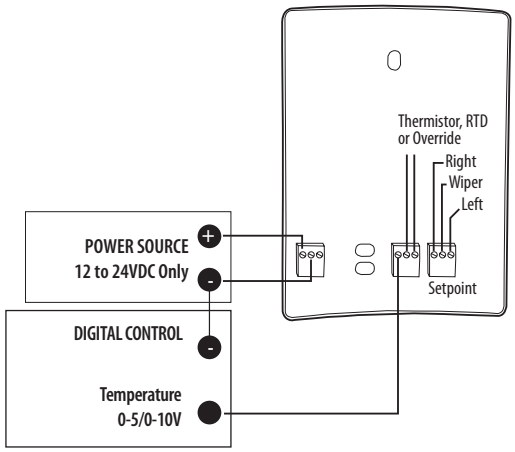
APPLICATION/WIRING DIAGRAMS

TW Series – 4-20mA

NOTE: For 24VAC transformer powered applications, one side of transformer secondary is connected to common. Isolation transformer, or dedicated power supply may be required.

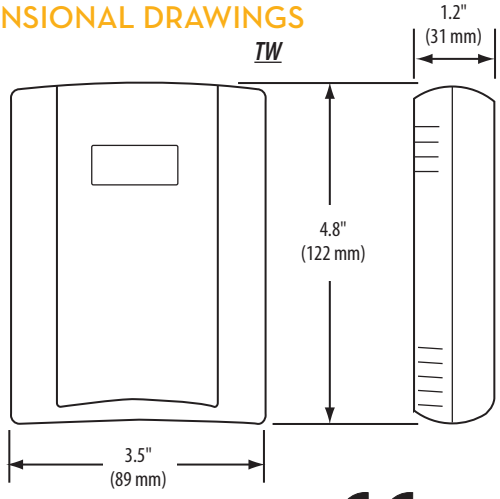


TW Series – 0-5/0-10V

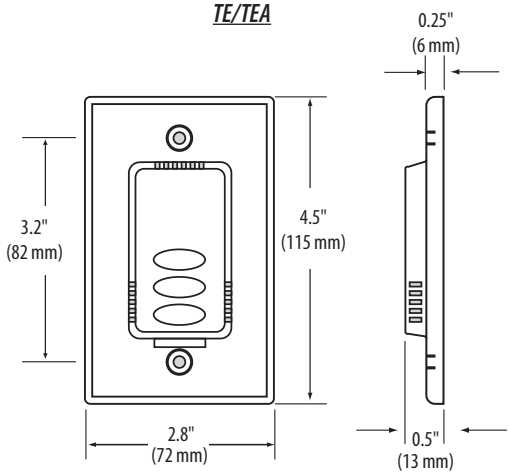


DIMENSIONAL DRAWINGS

TW



TE/TEA



ORDERING INFORMATION

CE

TW

Local Display	Sensor Type	Setpoint/Override	Cal Certificate	Housing Color
L = LCD **X** = No	A = Transmitter selectable outputs	**0** = None **2** = 1k Setpoint **3** = 10k Setpoint **4** = 1k Setpoint w/override **5** = 10k Setpoint w/override	**0** = None **1** = 1 point Cal validation **2** = 2 point Cal validation	**None** = Cloud White **B** = Black

Example: TW X A 0 2

TEA

Output	US or EU	Housing Color
M = 4-20mA **V** = 0-10VDC **J** = 0-5VDC	S = Standard	**None** = Cloud White **B** = Black

Example: TEA J S

TW

Local Display	Sensor Type	Setpoint/Override	Cal Certificate	Housing Color
L = LCD **X** = No	**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, Thermistor **P** = 10mV/°C, Linitemp **R** = 10k US, Thermistor **S** = 10k 3A221, Thermistor **T** = 100k, Thermistor **U** = 20k "D", Thermistor **W** = 10k T2 high accuracy, Thermistor **Y** = 10k T3 high accuracy, Thermistor **Z** = 10k E1, Thermistor	**0** = None **1** = Override* **2** = 1k Setpoint **3** = 10k Setpoint **4** = 1k Setpoint w/override* **5** = 10k Setpoint w/override*	**0** = None **1** = 1 point Cal validation **2** = 2 point Cal validation	**None** = Cloud White **B** = Black

*NOTE: Pushbutton override short circuits RTD/thermistor output

Example: TW L C 0 1

TE

Sensor Type	Setpoint/Override	Cal Certificate	Housing Color
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, Thermistor **P** = 10mV/°C, Linitemp **R** = 10k US, Thermistor **S** = 10k 3A221, Thermistor **T** = 100k, Thermistor **U** = 20k "D", Thermistor **W** = 10k T2 high accuracy, Thermistor **Y** = 10k T3 high accuracy, Thermistor **Z** = 10k E1, Thermistor	**0** = None **1** = Override **2** = 1k Setpoint **3** = 10k Setpoint **4** = 1k Setpoint w/override **5** = 10k Setpoint w/override	**0** = None **1** = 1 point Cal validation **2** = 2 point Cal validation	**None** = Cloud White **B** = Black

Example: TE D 5 2

ACCESSORIES

Replacement covers for wall units (AA51, AA51B, AA52, AA52B)

Replacement cloud white wall housing (AA55)

TEMPERATURE