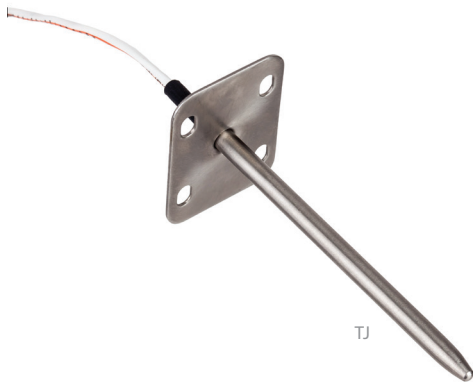


TJ SERIES

VAV Discharge Air Sensor for Reheat Applications



The TJ Series temperature sensors are highly accurate and cost effective, with trouble-free installation. The sensor is encased in a sturdy corrosion-resistant stainless steel probe. A variety of RTD/thermistor sensor and probe length options are available for maximum versatility in applications.

SPECIFICATIONS

Wiring	22 AWG; 2-wire: RTD/Thermistor
Probe	Stainless steel
Operating Temp	Probe: -25° to 105 °C (-13 to 221 °F) Wiring side: Up to 75 °C (167 °F)

WARRANTY

Limited Warranty	5 years
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Increased cable length affects the readings of lower resistance RTDs (100R platinum, RTD).
* Room temperature offset documented on each unit.

Easy installation

Stainless steel duct probe with mounting flange

Two wires

2-wire installation (optional quick disconnect)...installs in minutes

VAV systems

Installation-ready for VAV systems and plenum areas...saves money on job commissioning and warranty service

Plenum rated

Plenum rated cable standard

Application flexibility

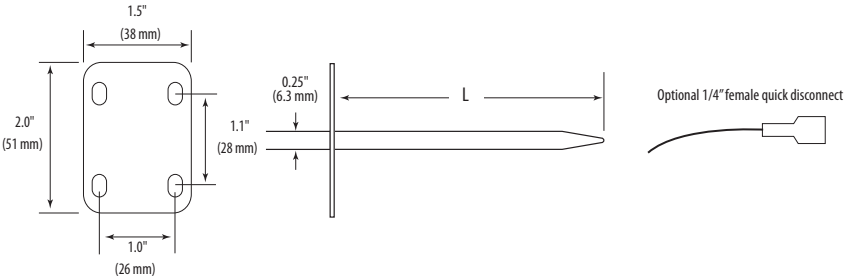
4" or 8" (102 mm or 204 mm) duct probes

APPLICATIONS

- VAV reheat boxes
- Dual duct boxes
- Fan coils
- Prove that hot water valve or electric heat is functioning properly
- Check individual reheating stages
- Check for hot water valve leaks
- Determine if damper actuators are functioning on dual duct boxes



DIMENSIONAL DRAWING



ORDERING INFORMATION

Probe Length "L"

TJ

B = 4" (102mm)
D = 8" (203mm)

Sensor Type

B = 100R platinum, RTD
C = 1k platinum, RTD
D = 10k T2, Thermistor
E = 2.2k, Thermistor
F = 3k, Thermistor
H = 10k T3, Thermistor
I = 1k Balco (Nickel-iron) RTD
J = 10k Dale, Thermistor
K = 10k w/11k shunt, Thermistor
M = 20k NTC, Thermistor
N = 1800 ohm, Thermistor
W = 10k T2 high accuracy, Thermistor
Y = 10k T3 high accuracy, Thermistor

Output

R

= Resistive

Cal Certificate

0 = None
2 = 3-point NIST calibration

Option

0 = Standard 5 ft. cable, No QDs
1 = 1/4" Female Quick Disconnects (QD)
2 = 1/4" QDs with 8 ft. leadwires
3 = 10 ft. cable, no QDs

Example:

TJ B D R 2 1

STANDARD RTD AND THERMISTOR VALUES

Class	Pt RTD		Balco RTD	THERMISTOR								10k Type 2	10k Type 3
Type	100 Ohm	1000 Ohm	1000 Ohm	2.2k	3k	10k Type 2	10k Type 3	10k Dale	20k				
Accuracy	±0.3°C	±0.3°C	±1% @70°C	±0.2°C	±0.2°C	±1.0°C	±0.2°C	±0.2°C	Consult			±0.1°C 20/70°C	±0.1°C
	0.00385 curve	0.00385 curve		0/70°C	0/70°C	-50/150°C	0/70°C	-20/70°C	Factory			±0.2°C 0/20°C	0/70°C
Temp. Response*	PTC	PTC	PTC	NTC	NTC	NTC	NTC	NTC	NTC			NTC	NTC

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

STANDARD RTD AND THERMISTOR VALUES (Ohms Ω)													
°C	°F	100 Ohm	1000 Ohm	1000 Ohm	2.2k	3k	10k Type 2	10k Type 3	10k Dale	20k NTC	10k Type 2	10k Type 3	
-50	-58	80.306	803.06	740.46	154,464	205,800	692,700	454,910	672,300	1,267,600	692,700	454,910	
-40	-40	84.271	842.71	773.99	77,081	102,690	344,700	245,089	337,200	643,800	344,700	245,089	
-30	-22	88.222	882.22	806.02	40,330	53,730	180,100	137,307	177,200	342,000	180,100	137,307	
-20	-4	92.160	921.60	841.00	22,032	29,346	98,320	79,729	97,130	189,080	98,320	79,729	
-10	14	96.086	960.86	877.46	12,519	16,674	55,790	47,843	55,340	108,380	55,790	47,843	
0	32	100.000	1,000.00	913.66	7,373	9,822	32,770	29,588	32,660	64,160	32,770	29,588	
10	50	103.903	1,039.03	952.25	4,487	5,976	19,930	18,813	19,900	39,440	19,930	18,813	
20	68	107.794	1,077.94	991.82	2,814	3,750	12,500	12,272	12,490	24,920	12,500	12,272	
25	77	109.735	1,097.35	1,013.50	2,252	3,000	10,000	10,000	10,000	20,000	10,000	10,000	
30	86	111.673	1,116.73	1,035.18	1,814	2,417	8,055	8,195	8,056	16,144	8,055	8,195	
40	104	115.541	1,155.41	1,077.68	1,199	1,598	5,323	5,593	5,326	10,696	5,323	5,593	
50	122	119.397	1,193.97	1,120.52	811.5	1,081	3,599	3,894	3,602	7,234	3,599	3,894	
60	140	123.242	1,232.42	1,166.13	561.0	747	2,486	2,763	2,489	4,992	2,486	2,763	
70	158	127.075	1,270.75	1,210.75	395.5	527	1,753	1,994	1,753	3,512	1,753	1,994	
80	176	130.897	1,308.97	1,254.55	284.0	378	1,258	1,462	1,258	2,516	1,258	1,462	
90	194	134.707	1,347.07	1,301.17	207.4	-	919	1,088	917	1,833	919	1,088	
100	212	138.506	1,385.06	1,348.38	153.8	-	682	821	679	1,356	682	821	
110	230	142.293	1,422.93	1,397.13	115.8	-	513	628	511	1,016	513	628	
120	248	146.068	1,460.68	1,447.44	88.3	-	392	486	389	770	392	486	
130	266	149.832	1,498.32	1,496.28	68.3	-	303	380	301	591	303	380	
Sensor Codes		B	C	I	E	F	D	H	J	M	W	Y	

Z202030-0U

