AVERAGING RTDS

Continuous averaging resistance temperature detectors are most frequently used in air washing and air handling systems where turbulent and stratified air flow may affect the temperature measurement in a tip sensitive probe. The average temperature of the air in the duct can be measured with this type of sensor.

Any application which requires an averaging of temperature across an area would be suited for this sensor type. The operating temperature range for a continuous averaging RTD is from -148 to 382°F. Lower temperatures and temperatures up to 900°F are handled with a multipoint design (4, 8, or 16 points).

#1	DESCRIPTION
3A	Averaging RTD

#2	ELEMENT TYPE 0.00385, 100Ω @ 0°C, Class B **Note:** For 1000 Ω RTD put a K after your selection. For example, P4K.		
E*	Continuous, -148° to 382°F (-100° to 194°C)	X	Other, specify
P4**	Platinum 4 point, <900°F (<482°C)		
P8**	Platinum 8 point, <900°F (<482°C)		
P16**	Platinum 16 point, <900°F (<482°C)		

* Only available in 1/4" diameter up to 1200" long.
** Maximum probe length is 240"

#3	PROBE DIAMETER		
B	1/4" (.250")	C	3/16" (.188")

#4	SENSING LENGTH
__"	Sensing length in inches **Note:** Sensing length must be at least 4" shorter than the total probe length.

#5	TUBE MATERIAL		
K	316 Stainless steel	U	Copper

#6	TOTAL PROBE LENGTH
__"	Total probe length in inches

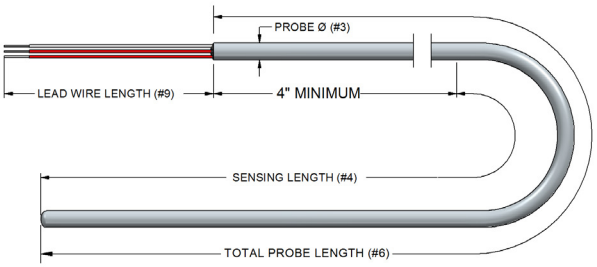
Note: Call JMS for information about averaging thermocouples, swamp boxes and special proprietary multipoint designs.

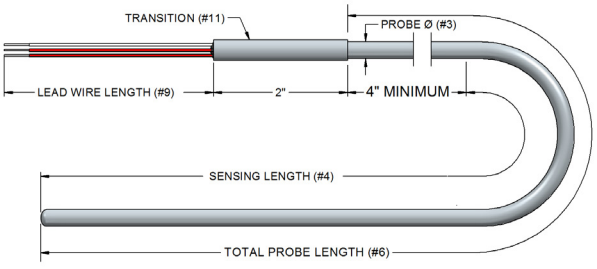
Note: When LENGTH (Option #6) exceeds 90", the probe may be coiled for shipment.

Note: 9" minimum bend radius

#7	STANDARD INDUSTRIAL ATTACHING DEVICE
W	Fixed 1/2" NPT double threaded SS fitting
B	Bayonet spring-loaded assembly for thermowells & heads
F	Reverse mounted single thread SS fitting fixed to sheath for attaching head
G	Fixed single threaded SS fitting
H	Compression fitting SS w/ SS ferrule
I	Compression fitting SS w/ Teflon ferrule
J	Compression fitting SS w/ lava ferrule
K	Compression fitting SS w/ Nylon ferrule
X	Other, specify
Z	N/A

For all compression fittings except fixed, immersion is overall length of the tube.





#8	PROCESS NPT		
L	1/8"	X	Other, specify
M	1/4"	Z	N/A
P	1/2"		

#9	LEAD WIRE TYPE & LENGTH IN INCHES
1 __"	Fiberglass braid
3 __"	Teflon
5 __"	Kapton
6 __"	Fiberglass braid/flex armor overall
7 __"	Teflon/flexible armor overall
8 __"	3 conductor fiberglass braid/SS overbraid
9 __"	3 conductor Teflon with Teflon jacket overall
10__"	3 conductor Teflon/SS overbraid with Teflon jacket overall
11__"	High-temperature Teflon
X __"	Other, specify
Z	N/A

#10	WIRE CONFIGURATION
T	2 Wire
Y	3 Wire
W	4 Wire

#11	MAX TRANSITION TEMP	
P	< 500°F	* Not valid for continuous element type.
Q*	> 500°F	

3A	E	B	12"	K	18"	I	M	3-36"	Y	P

AVERAGING RTDS

#12	COLD END TERMINATION [Additional options see Page 1-7] (Choose as many as applicable)
A	Bare ends
B	Miniature plug
C	Standard plug
D	Miniature jack
E	Standard jack
F	High temperature plug (< 800°F)
G	High temperature jack (< 800°F)
I	Explosion proof head, NEMA 4X, FM, CSA, IP66 (6IA)
K	Spade lugs (6SL)
L	Aluminum head w/ hinged cover (6L)
M	Aluminum head w/ screw cover & chain (6M)
N	Cast Iron head w/ screw cover (6N)
O	Open terminal block (6B4)
Q	Black plastic head (6Q)
R	High dome head (6R)
V	Molded water resistant plug (6DC)
WM	Microphone style connector (6DA) - Male
WF	Microphone style connector (6DA) - Female
X	Other, specify

Note: For any other cold end termination, use appropriate part numbers from section 6 in place of symbol #12.

#13	TAGGING AND CALIBRATION OPTIONS (use only if applicable)		
1	Stainless steel tag	5	Standard room temp calibration. Due to the limited size of calibration chambers and the potential sensing length of these sensors, we recommend one point at room temperature. Please contact factory for any other calibration options.
2	Plastic tag		
3	Paper tag		
4	Laser etch on probe	7	CE marking [Page XV of online technical catalog]
		M	MTR
		T	Calibration tag

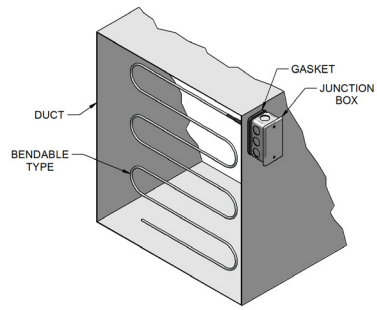
C	1

LOW COST AVERAGING RTDS

Low cost averaging RTDs sense the temperature of air streams in ducts and plenums. This sensor includes a junction box with gasket to prevent leakage and vibration noise.

These thermometers have a continuous element to sense true average temperature along their entire length. They provide accurate composite readings in locations where air may be stratified into hot and cold layers.

Rigid averaging sensors have a brass case. Bendable models have aluminum sheaths (Copper on special order) formable to a radius of 4". Bendable sensors can criss-cross ducts to average temperatures in two dimensions.



Specifications:
Temperature range: -45.5 to 135°C (-50 to 275°F); Gasket: 100°C (212°F); Leadwire: 22AWG, Teflon insulated, 8" long; Sheath diameter: .188" OD.

#1	DESCRIPTION
3L	Platinum, 100Ω @ 0°C, a=0.00385
3LK	Platinum, 1000Ω @ 0°C, a=0.00385

#2	SENSOR TYPE
56	Rigid
57	Bendable

#3	WIRE CONFIGURATION
T	2 Wire
Y	3 Wire

#4	INSERTION LENGTH
_____"	(Standard Lengths for Rigid type (inches): 12", 18", 24", 48", 60", 72" Standard Lengths for Bendable type (inches): 72", 144", 288")

#5	OPTIONS [Additional options see page 1-7]
A	Weatherproof connection box (2.12"W X 4.0"H X 1.75"D)
B	Sensor only, no box
C	Stainless steel tag
X	Other

Note: When INSTERTION LENGTH (Option #4) exceeds 90", the probe may be coiled for shipment.

3L	56	T	60"	A