



RTD Temperature Sensors

High accuracy sensors for a multitude of applications

Features

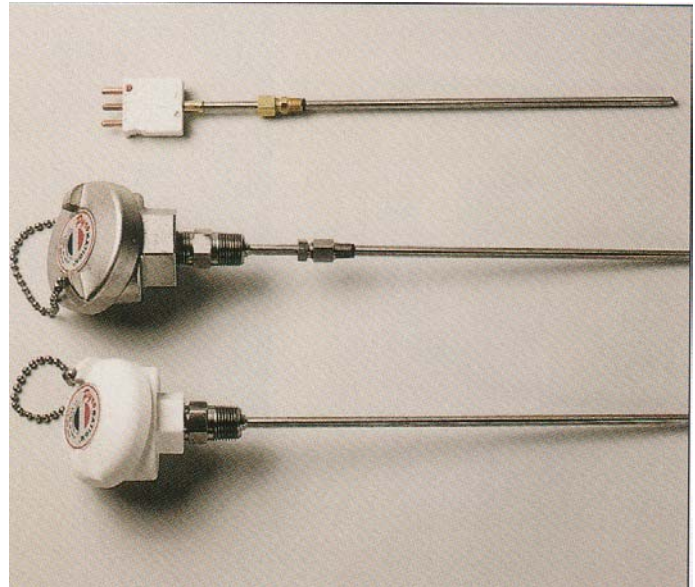
- ◆ **2, 3 or 4 wire construction in single or dual elements with Platinum 100, 200, 500 or 1000 ohm values**
- ◆ **Accuracies of $\pm 0.12\%$, $\pm 0.1\%$, $\pm 0.03\%$, or $\pm 0.01\%$ at 0°C**
- ◆ **316 Stainless Steel Standard Sheath Material in a variety of diameters and lengths**
- ◆ **Sheath options of compression fittings, welded bushings, flanges, bayonet fittings and sheath bends**
- ◆ **Terminations of RTD Plugs and Jacks, Screw Cover, Explosion Proof and Miniature Heads in a variety of materials**
- ◆ **Leadwire with multiple choices of insulation including stainless steel overbraid or flexible armor**
- ◆ **Programmable head mounted RTD transmitters to provide a 4 to 20 ma output**

Pyromation's general purpose RTD (resistance temperature detector) temperature sensor assemblies are used in a multitude of process and HVAC applications. Assemblies are offered with a choice of element materials, values and accuracies, a choice of element lead-wire configurations, and a choice of sheath materials and diameters. Many assemblies are supplied in drilled or flanged wells, and all assemblies can be

supplied with **Pyromation's low cost integral head mounted RTD transmitter.**

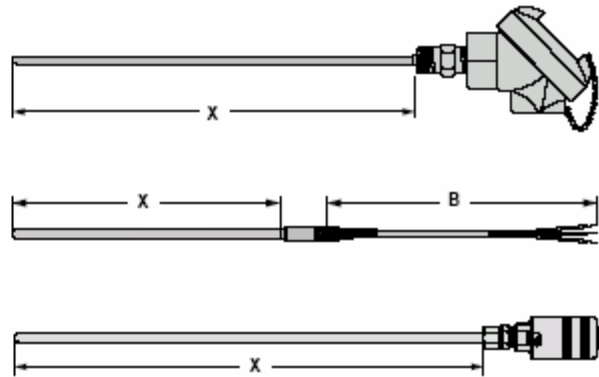
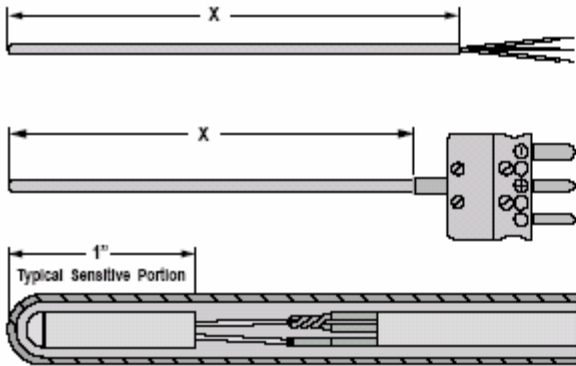
RTD temperature sensors for many special process applications are available and all types of custom options can be built quickly.

Wisner Controls has popular RTD's, wire and accessories in stock for same day shipment. There is also factory express service available for RTD's needed in an emergency.



**RTD's-
Excellent temperature sensors for
process applications**

Pyromation RTD's are available in a many different styles for all types of applications. You can choose accuracies, sheath materials and diameters, mounting fittings and terminations. The following tables show some of the many options available.



RTD Accuracy- There are four levels of RTD accuracies available:

RBF \pm .12%

R1T \pm .1%

R3T \pm .03%

R5T \pm .01%

(R5T is the highest and most common accuracy used)

Temperature Range- RTD's are available in low and high temp ranges:

Low range -328 to 400F

High range -328 to 1112F

Temperature Coefficient and Ohm Value- RTD's are available in both .00385 and .00392 temperature curves and in 100, 200, 500 and 1000 ohm values

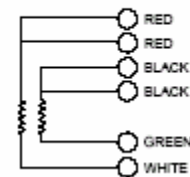
Single or Dual Element- RTD's can be built in both single and dual element types in 2, 3 or 4 wire elements. (3 wire construction is the most common)

Sheath diameter and lengths- Sheaths are constructed standard in 316 s/s in 1/8", 3/16", 1/4", and 3/8" OD diameters. Up to 12" in length is included standard but any longer length is available.

3 WIRE SINGLE



3 WIRE DUPLEX



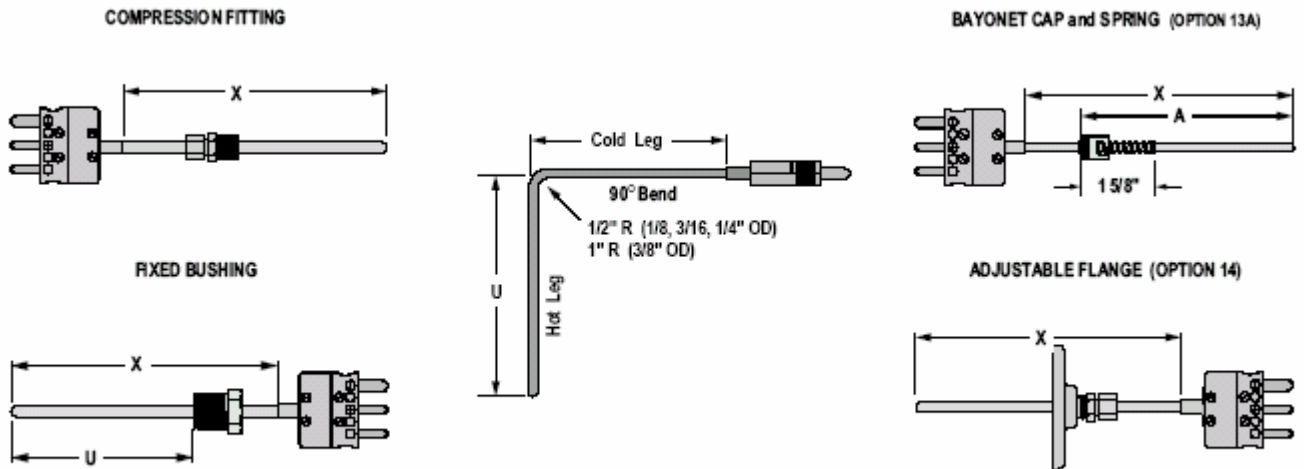
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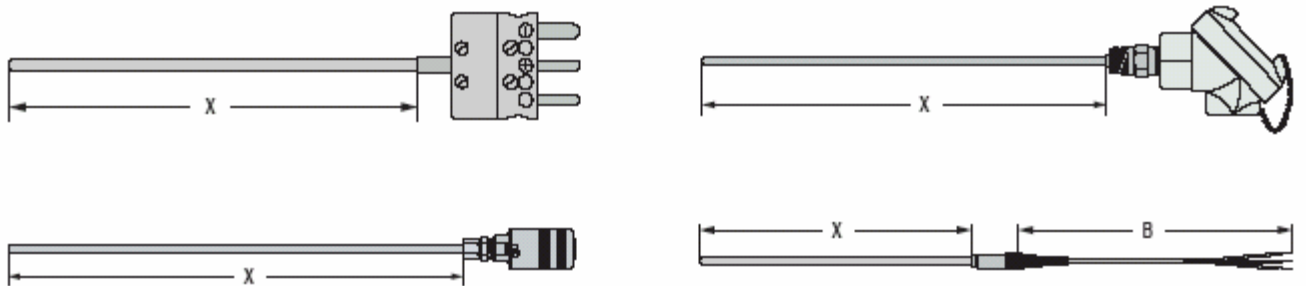
Optional Sheath Mounting Fittings and Bends-

A variety of compression fittings, welded bushings and flanges are available to mount an RTD. The sheath can also be bent to any dimension.



Terminations and Heads-

An RTD can be terminated with leadwire, plug and jack, or a variety of connecting heads like shown below.



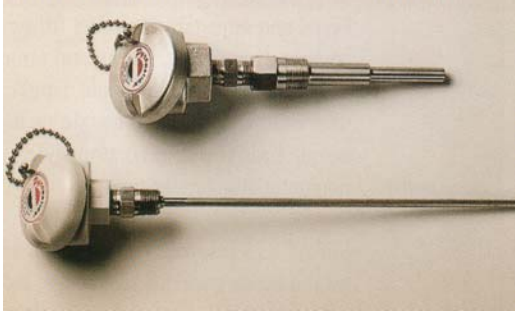
RTD CONNECTING HEADS-

Pyromation's connecting heads are recognized as the Processing Industry's standard. We offer several different styles of screw cover heads in several materials including aluminum, stainless steel and thermo-plastic. Pyromation also offers an aluminum flip top head as an alternative style. These heads meet several different NEMA requirements, including two UL® listed explosion proof offerings, and they are designed to accept a choice of six different ceramic terminal blocks or our patented RTD transmitter. A miniature nickel plated steel head is also available with a choice of terminal block configurations. All heads are available as an integral part of our temperature sensor assemblies or as separate component parts.



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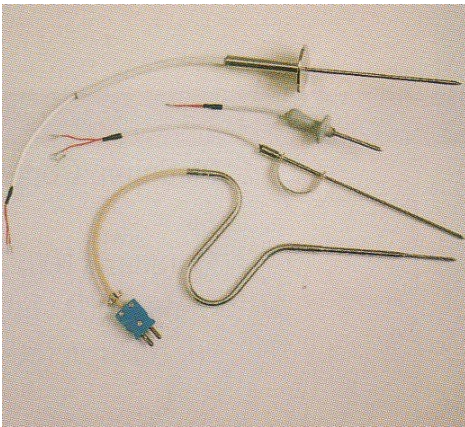
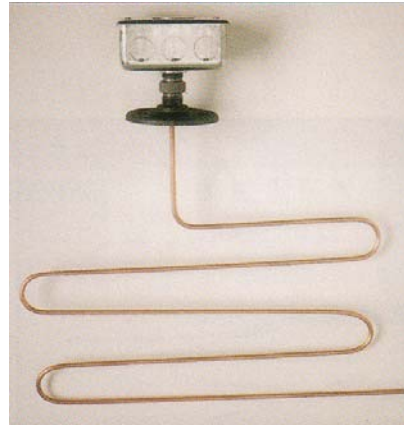
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THREADED DIRECT IMMERSION AND RTD ASSEMBLIES IN THERMOWELLS
 RTD's can be built to directly thread into the process or with a thermowell assembly. Standard and heavy duty thermowells in many different lengths and materials are in stock along with flanged, tapered and special purpose wells. They are typically spring loaded to assure good temperature transfer through the well

RTD AVERAGING SENSOR

These RTD's measure the temperature over the entire length to provide an average temperature. The probe is a bendable soft copper which allows them to bent to measure cross sections in air ducts or rooms.



PENETRATION STYLE RTD SENSORS

The insertion type of RTD probe is used to monitor internal temperatures of meat, fish poultry, dough and other food products. The materials are all FDA compliant for use in sanitary applications. The sheaths have a sharp needle point insertion tip. Several varieties of handles, leadwire, and terminations are available.



THERMOSTAT TEMPERATURE SENSOR

RTD's for room temperature measurements. These mount in small thermostat housings and can include a 4 to 20 ma transmitter if needed.

