

RTDs and Thermistors

Resistance Temperature Sensing

RTDs

Watlow's platinum resistance elements are specially designed to ensure precise and repeatable temperature versus resistance characteristics. The sensors are made with controlled purity platinum, have high purity ceramic components and constructed in a unique strain-free manner.

Performance Capabilities

- Ceramic elements are extremely precise and stable within the wide temperature range of -200 to 650°C (-328 to 1200°F).

Features and Benefits

Patented, strain-free construction

- Provides dependable, accurate readings
- Allows elements from different lots to be substituted without recalibration

High signal-to-noise output

- Increases accuracy of data transmission
- Permits greater distances between sensor and measuring equipment

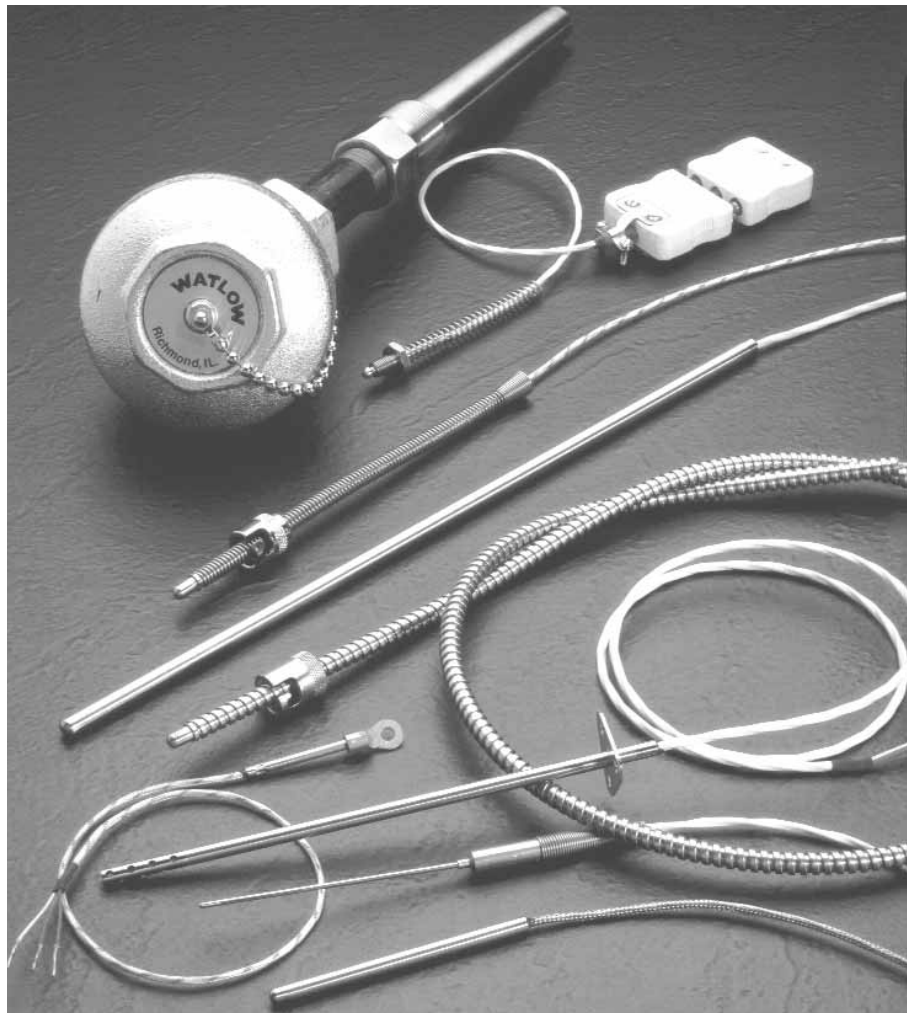
Temperature coefficient (alpha) carefully controlled while insulation resistance values exceed DIN-IEC-751 standards

- Ensures sensor sensitivity
- Minimizes self heating
- Allows precise measurement
- Repeatable

Highly controlled manufacturing process

- Ensures wide temperature range
- Stabilizes physical and chemical attributes

Metric diameters and fittings are available, please consult factory

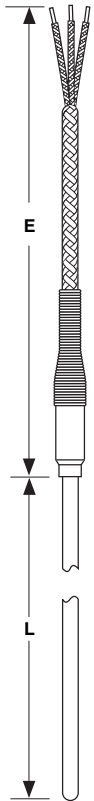


Applications

- Air conditioning and refrigeration servicing
- Furnace servicing
- Stoves and grills
- Textile production
- Plastics processing
- Petrochemical processing
- Micro electronics
- Air, gas and liquid temperature measurement
- Exhaust gas temperature measurement

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RTD Style RF Metal Transitions



Features and Benefits

Stainless steel transitions

- Crimped to sheath and filled with 260°C (500°F) epoxy
- Optional brazing available

Coiled spring strain relief

- Protects lead wire against sharp bends in the transition area

Flexible mineral insulated construction

- Provides a bendable and highly durable sensor

Temperature rating

- -200 to 650°C (-328 to 1200°F)

High accuracy

- Dependable readings

Diameters available

- 0.125 to 0.250 inch O.D.

② Requires two- or three-wire only, single element only

Rapid Ship Sensors

Rapid Ship sensors come with 100Ω DIN 0.00385 curve, 316 stainless steel, 0.188 inch diameter, 24 AWG stranded Teflon® three-wire, four foot leads, temperature rating -200 to 650°C (-328 to 1200°F), standard split end lead termination and no mounting fittings. See page 166 to order additional connector hardware.

Class Accuracy	Sheath Length in. (mm)	Part Number 4 foot (102 mm) Leads
A	3 (76)	RFHB0TK030BA040
	6 (152)	RFHB0TK060BA040
	9 (229)	RFHB0TK090BA040
	12 (305)	RFHB0TK120BA040

Custom Ordering Information—Items in **Bolded Green Type** are preferred with shorter lead times.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

R F

1-2. Style _____
 F = Metal transition with strain relief

3. Sheath O.D. (inch) _____
 G = 0.125
H = 0.188
J = 0.250

4. Lead Wire Construction _____
 Standard Overbraid Flex Armor
 Fiberglass Stranded **A** J R
 PFA or TFE Stranded **B** L T

5. Fittings _____
 If required, enter order code from pages 39 to 40.
If none, enter "0".

6. Lead Wire Termination _____
 A^② = Standard male plug
 B^② = Standard female plug
 C^② = Standard plug with mating connector
 J^② = Male miniature plug
 K^② = Female miniature jack
 L^② = Male/female mini set
T = Standard leads
 U = Leads with spade lugs

7. Sheath Construction _____
 316 SS Alloy 600
 Mineral Insulated **K** **L**

8-9. Sheath Length "L" (inch) _____
03, 06 and 12
 Whole inches: 03 to 99
 Metric lengths and lengths over 99 inches consult factory.

10. Sheath Length (fractional inch) _____
0 = No fraction, whole inches
 1 = ¼ 3 = ⅜ 5 = ½ 7 = ¾
 2 = ¼ 4 = ½ 6 = ¾

11. Element _____
 2-wire 3-wire
 100Ω Single A **B**

12. Temperature Coefficient _____
 DIN 0.00385
A = Class A
B = Class B

13-14. Lead Wire Length "E" (foot) _____
02 and 04
 Whole feet: 01 to 99

15. Special Requirements _____
0 = None
 X = Special requirements, consult factory