Resistance Temperature Sensors

RTDs

Watlow manufactures a variety of RTD sensors that are specially designed to ensure precise and repeatable temperature measurement. Watlow sensors are built to meet the most demanding industrial applications while providing a lower total cost of ownership for our customers.

Performance Capabilities

- Precise and stable within the wide temperature range of -328 to 1200°F (-200 to 650°C)

Features and Benefits

Strain-free construction

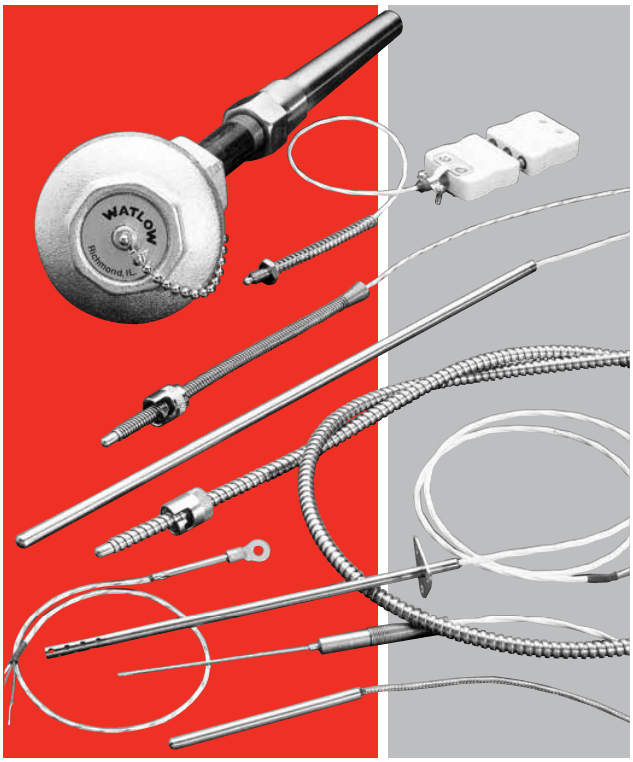
- Provides dependable, accurate readings
- Allows elements from different lots to be substituted with no recalibration needed

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



Typical Applications

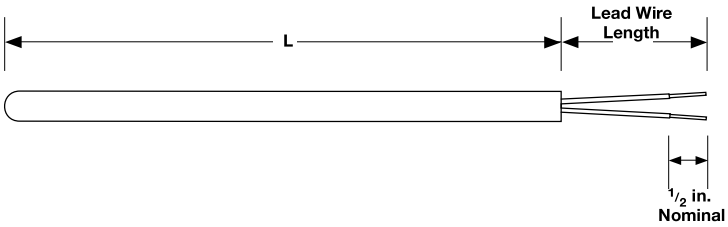
- Stoves, grills, fryers and other food equipment
- Textile production
- Plastics processing
- Petrochemical processing
- Air, gas and liquid temperature measurement
- Exhaust gas temperature measurement
- Semiconductor processing
- Bearing and gear boxes

Thermal Devices, Inc. Mount Airy, Maryland USA www.thermaldevices.com

Resistance Temperature Sensors

RTDs

Standard Industrial Insulated Leads
Style RB



Ordering Information

Part Number

① ②	③	④	⑤	⑥	⑦	⑧ ⑨	⑩	⑪	⑫	⑬ ⑭	⑮
RB	Sheath O.D. (in.)	Lead Wire Const.	Fittings	Lead Wire Term.	Sheath Const.	Sheath Length "L" (in.)	Sheath Length "L" (fract. in.)	Element	Initial Element Accuracy	Lead Wire Length (ft)	0
					A						

③ Sheath O.D. (in.)

G =	0.125
H =	0.188
J =	0.250

Note: 0.125 dia. supplied with 28 gauge wire. 0.188 and 0.250 dia. supplied with 24 gauge wire.

④ Lead Wire Construction*

	Standard	Overbraid	Flex Armor
Fiberglass stranded	A	J*	R*
PFA stranded	B	L*	T*

Certain option combinations must be furnished with a transition between the sheath and lead wire. Contact the factory if a transition is unacceptable.
*May require a transition.

⑤ Fittings

If required, enter the order code from pages 76 to 77. If none enter "0".

⑥ Lead Wire Termination

A* =	Standard male plug 400°F (200°C)
B* =	Standard female jack
C* =	Standard plug with mating connector
J* =	Male miniature plug
K* =	Female miniature jack
L* =	Male/female mini set
T =	Standard leads
U =	Leads with spade lugs

* Requires two-or three-wire, single element only.

⑦ Sheath Construction

A =	316/316L SS

⑧ ⑨ Sheath Length "L" (in.)

Available lengths: 02 to 36

⑩ Sheath Length "L" (fractional in.)

0 =	No fraction, whole inches
4 =	1/2 in.

⑪ Element

	2-Wire	3-Wire	4-Wire
100Ω single	A	B	C
100Ω dual*	D	E	—
1000Ω single	J	K	L

* Available in 0.250 inch diameter only.

⑫ Initial Element Accuracy @ 0°C

A =	DIN Class A (±0.06%)
B =	DIN Class B (±0.12%)

⑬ ⑭ Lead Wire Length (ft)

Whole feet: 01 to 99

Note: Single wires for 4 feet and under. Duplex wires for over 4 feet.

Note: Applies to low temperature RTD's only.

Features and Benefits

High accuracy
- Dependable readings

Customized diameters
- From 0.125 to 0.250 inch

Epoxy sealed
- Resists moisture and pull out
- Standard 500°F (260°C) potting

Durable rigid sheath
- 316 stainless steel -58 to 500°F (-50 to 260°C)

Internal heat transfer paste
- Quick time response