

# 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

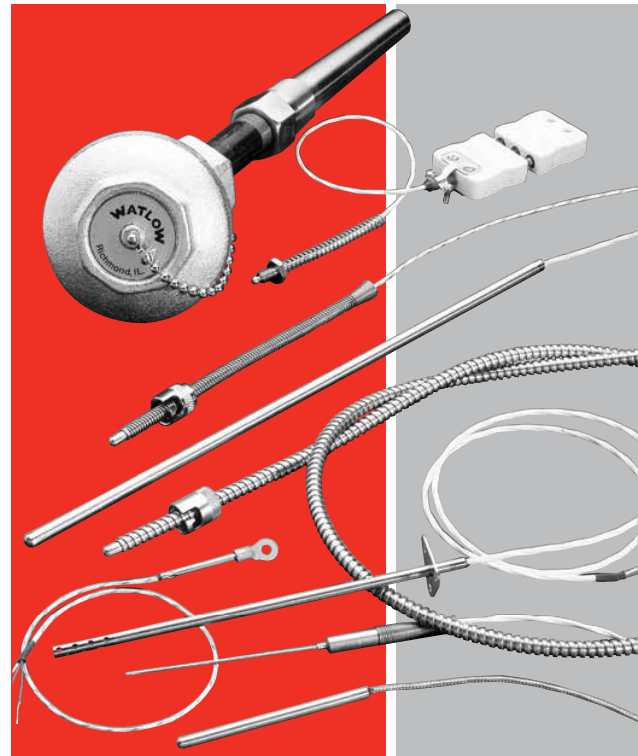
- Provides dependable, accurate readings
- Allows elements from different lots to be substituted with no recalibration needed

#### 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



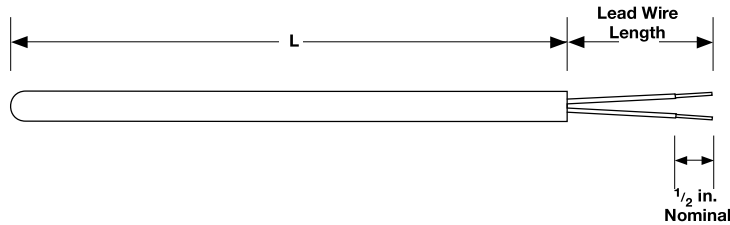
### Typical Applications

- 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

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## 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

③ Sheath O.D. (in.)	
G =	0.125
H =	0.188
J =	0.250
<b>Note:</b> 0.125 dia. supplied with 28 gauge wire. 0.188 and 0.250 dia. supplied with 24 gauge wire.	

④ Lead Wire Construction*			
	Standard	Overbraided	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	
<b>Note:</b> 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