

# 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

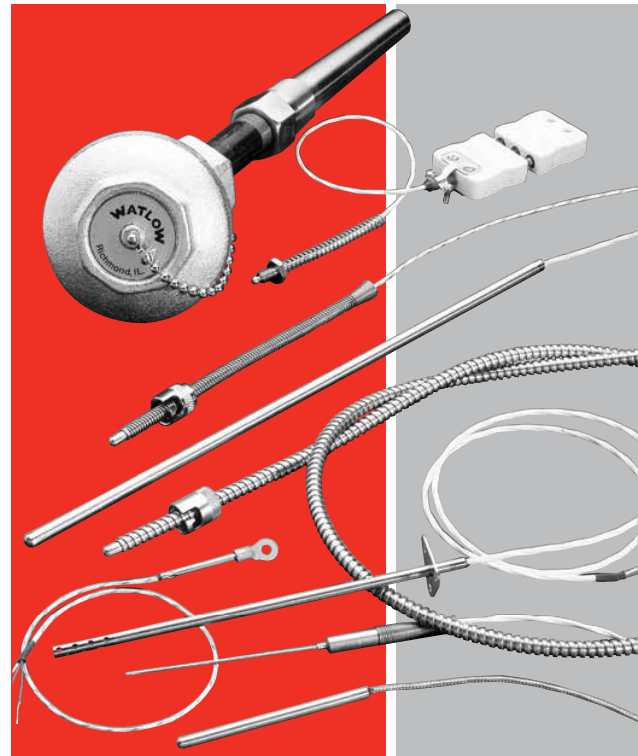
- Provides dependable, accurate readings
- Allows elements from different lots to be substituted with no recalibration needed

#### 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



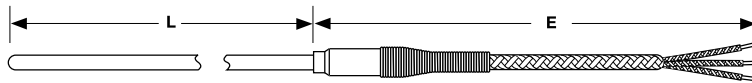
### Typical Applications

- 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

# Resistance Temperature Sensors

## RTDs

### Metal Transitions Style RF



## Ordering Information

### Part Number

① ②	③	④	⑤	⑥	⑦	⑧ ⑨	⑩	⑪	⑫	⑬ ⑭	⑮
RF	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> All sheath diameters, MI cable only (high temp) are 24 gauge duplex lead wire.	

④ Lead Wire Construction			
	Standard	Overbraid	Flex Armor
Fiberglass stranded	A	J	R
PFA stranded	B	L	T

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
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	
K =	316/316L SS mineral insulated

⑧ ⑨ Sheath Length "L" (in.)	
Whole inches: 03 to 99, metric lengths and lengths over 99 inches contact factory. Maximum length 165 inches.	

⑩ Sheath Length "L" (fractional in.)	
0 =	No fraction, whole inches
4 =	1/2 in.

⑪ Element		
	2-Wire	3-Wire
100Ω single	A	B

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	

## Features and Benefits

### Stainless steel transitions filled with 500°F (260°C) epoxy

- Protects sensor from moisture
- Encapsulates connection between wire and cable

### 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

- -328 to 1200°F (-200 to 650°C)

### High accuracy

- Ensures dependable readings

### Diameters available

- 0.125 to 0.250 inch O.D.