A Variety of Thermocouple Variations Available to Meet Your Application Needs

Watlow® offers two basic types of base metal thermocouples with protection tubes: bare and ceramic insulated elements. Many variations of each type are available to meet your application needs.

Performance Capabilities
- 2300°F (1260°C) maximum temperature

Features and Benefits

Insulated wire thermocouples
- Suitable for most general purpose applications

Bare and ceramic insulated elements
- Available in ASTM E 230 Types K and J, can be twisted or butt welded
- Choices include straight or angle types, two- or four-hole insulators and single or dual element

Protected thermocouples
- Supplied complete with head, block and protection tube
- Several styles available

Typical Applications
- Metal processing such as aluminum, zinc, brass (with appropriate protection tube)
- Chemical
- Petrochemical
- Industrial storage tanks
Bare Elements
To order, specify: Part number-length
Example: 1402-36 or 1432-BW-24

Straight Elements with Two-Hole Insulators
To order, specify: Part number-length
Example: 1409-48 or 1436-BW-18

Angle Type with Two-Hole Insulators
To order, specify: Part number-cold leg length-hot leg length
Example: 1440-BW-12-24

Dual Elements with Four-Hole Insulators
To order, specify: Part number-length
Example: 1442-BW-36
**Standard Thermocouple with Protection Tubes**

**Straight Type**

To order, specify: Part number-length  
Example: 1409-1308-24

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**90 Degree Angle Type**

To order, specify: Part number - cold leg length, hot leg length.  
Standard cold leg length is 18 inches.  
Example: 1414-1395-18-24