

## Accessories

### Connector Systems

Many varieties of thermocouple connectors are available from Watlow. Whether you're looking for high impact strength, fast installation, or high temperature capabilities, you'll find the right connector system for your application at Watlow.

Listed below are the various connectors and systems from which to choose:

- Standard thermocouple connectors
- Quick-attach thermocouple connectors
- High temperature connectors
- Three-pole connectors for RTD applications
- Miniature thermocouple connectors

Watlow's standard line of connector systems are lightweight, rugged and accurate and features a clamping mechanism that is unique in the industry.

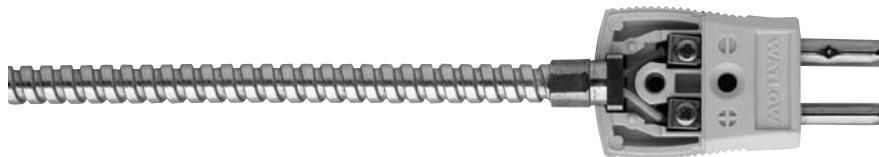
The new, easy-to-use clamping connection will replace the traditional screw and wire wrap. This new device allows a straight-in application, which squeezes the wire and forms a tight connection assuring a clean, strong signal.

US Patent Number D424016, additional patent pending.

#### Applications and Technical Data

To eliminate measuring errors, all Watlow connectors are made exclusively of matching metal alloys. If the connector material had different thermal EMF characteristics from the thermocouple or lead wire, a uniform temperature would have to be maintained across the connector. This is not always easily obtainable, nor is it practical.

**Note:** All accessories subject to minimum purchase quantities.



If a temperature gradient did exist across the connector made of a third metal, unwanted EMFs generated between the thermoelectric materials and the extremities of the connectors would cause an error appearing at the thermocouple output. The larger the gradient the larger the error. In some cases and depending on the calibration, net errors may occur that are even larger than the gradient.

#### Features and Benefits

##### ASTM color coded

- Assures easy identification

##### Compensated alloys

- Provides accuracy in readings

##### Glass-filled thermoplastic

- Provides high impact strength

##### Captive cap screws

- Secure connection

##### Connection hardware

- Redesigned to eliminate a number of components

##### Meets requirements for ASTM E1129

- Ensures adequate pin spacing, dimensions and contact resistance

##### Rated to 215°C (425°F)