










Watlow Thermocouples

Watlow provides over 85 years of manufacturing, research and product development for your temperature sensing needs. Watlow manufacturers a tremendous selection of general application, mineral insulated metal sheathed, base metal, high temperature, surface temperature and multipoint thermocouples are available. Fiberglass insulated thermocouples are capable of temperatures up to 900 °F (480 °C) for continuous operation. Watlow provides grounded, ungrounded and exposed junctions. Watlow uses a verification process at selected temperature points to products conform to ASTM error limits. Same day delivery on millions of thermocouple configurations is available.

| Product | Description | Temperature | | Outside Diameter | |
|---|---|--------------|-------------|------------------------------------|--|
| | | °F | °C | in. | mm |
|  General Applications Tube and Wire | Fiberglass and Teflon insulated leads for industrial and commercial equipment. Lead lengths 6 to 360 in. (152 to 9,144 mm) and standard sheath lengths up to 12 inches. J, K, T and E calibrations available. | up to 900 | up to 480 | .125, .1875 or .25 | 3.2, 4.8 or 6 |
|  Mineral Insulated | Fast-responding, durable and capable of handling high temperatures with the use of XACTPAK® metal sheathed cable with compacted MgO insulation. | up to 2200 | up to 1200 | 0.01 to 0.5 | 0.25 to 13 |
|  EXACTSENSE™ | Combines rugged thermocouple technology with signal conditioning into one package. The primary benefits are high accuracy, durability, quick response, and high temperature. | -104 to 2192 | -40 to 1200 | 0.083 to 0.188 | 2.1 to 4.8 |
|  Base Metal | Large gauge bare alloy available with ceramic insulated elements and protection tubes. Available in ASTM E 230 Types K and J. | up to 2300 | up to 1260 | 13, 19, 21, 25, 26.7, 33.4 or 41.3 | 0.5, 0.75, 0.84, 1.0, 1.05, 1.315 or 1.625 |
|  High Temperature / Platinum | Available in ASTM E 230 Types S, R or B with a variety of high temperature sheath materials capable of withstanding high temperatures. | up to 3100 | up to 1700 | 1.6 to 6.4 | 0.063 to 0.25 |
|  MICROCOIL™ | Surface temperature measurement | up to 1292 | up to 700 | 0.125 | 3.2 |
|  Radio Frequency Thermocouple | Reads surface temperature measurement through radio frequency energy. Highly conductive material provides quick response time. Available in type E, J or K calibration. | up to 932 | up to 500 | 0.19 | 5 |
|  True Surface Thermocouple | thermocouple from ambient airflow. Typically achieved accuracy and repeatability of one to two percent (ΔT). Fits into corners and other tight locations easily, 0.44 in. (11.9 mm) wide by 1.4 in. (35.5 mm) long by 0.25 in. (6.35 mm) thick. | up to 400 | up to 200 | n/a | n/a |
|  Multipoints | Accurately measures temperatures at various locations. Constructed of a variety of protecting tubes with XACTPAK mineral insulated metal sheathed cable. | up to 2200 | up to 1200 | 0.125, 0.1875 or 0.25 | 3.2, 4.8 or 6 |