HOT OR MEASURING JUNCTIONS

Ungrounded Junction (U)

The welded thermocouple junction is fully isolated from the welded closure of the sheath. This junction provides electrical isolation to reduce problems associated with electrical interference. Ungrounded junctions are also recommended for use in extreme positive or negative temperatures, rapid thermal cycling and for ultimate corrosion resistance of the sheath alloy. All ungrounded junctions exceed 100 megaohms resistance @ 100V dc at ambient room temperatures.

Exposed Junction (E)

The thermocouple wires are welded and exposed. The insulation is not sealed against liquid or gas penetration. Recommended where fast response is desired, and corrosive conditions are nonexistent. The exposed hot junction length for 1/8-inch diameter sheaths and above is typically equal to the outside diameter of the sheath. The exposed junctions for sheath diameters less than 1/8-inch diameter are supplied as sheilded junctions.

Grounded Junction (G)

The thermocouple junction is welded securely into the closure end of the sheath, becoming an integral part of the weld. This is a good general purpose, low cost junction providing faster response times than an un-grounded junction of similar sheath diameter. Grounded junctions should not be used with Type T thermocouples, due to the copper wire.