

RESISTANCE TEMPERATURE DETECTOR (RTD) SPECIFICATIONS

Element Leads

Lead wire is stranded, silver plated copper with teflon insulation for low range units, and stranded, silver plated copper with fiberglass insulation for high range units. Three lead wires are recommended to compensate for lead wire resistance in industrial applications.

Leadwire Insulation

Max. Temp. rating: 260°C (500°F) teflon
550°C (1022°F) fiberglass

WIRE CONFIGURATIONS

Two-Wire

Provides one connection to each end of the element. This construction is suitable where the resistance of the lead wire may be considered as an additive constant in the circuit, and particularly where the changes in lead resistance due to ambient temperature changes may be ignored.

Three-Wire

Provides one connection to one end of the element and two to the other end of the element. Connected to an instrument designed to accept three wire input, sufficient compensation is usually achieved for leadwire resistance and temperature change in leadwire resistance. This is the most commonly used configuration.

Four-Wire

Provides two connections to each end of the element to completely compensate for leadwire resistance and temperature changes in the leadwire. This configuration is used where highly accurate temperature measurement is vital.

