

Model TC-(K/T) Miniature Thermocouples



- Fine Wire Thermocouples
- **SMALL!** Absolutely the smallest diameter temperature sensor available.
- Long lengths suitable for medical catheter applications.
- Types T and K
- Available in Special Accuracy Tolerances.
- RoHS Compliant

DESCRIPTION

These fine wire thermocouples have the smallest diameter of any temperature sensor. They are available in wire gages from 36 to 46AWG, with tip diameters as small as 0.15mm. The bifilar wire construction provides for easy handling in long lengths typical in medical catheter applications. Made from enhanced accuracy thermocouple alloys, these sensors conform to ANSI MC 96.1 special limits of error.

FEATURES

- Custom lengths, supplied wound kink free on plastic spools.
- Color coded insulation for polarity identification.
- Thermocouple junctions either insulated or bare.
- Special limits of error for improved accuracy.
- Welded junctions are standard. Soldered junctions are available for smaller diameters on type T couples.

APPLICATIONS

- Medical Catheters for thermal therapies
- General purpose sensing in tight spaces or small volumes.

PERFORMANCE SPECS

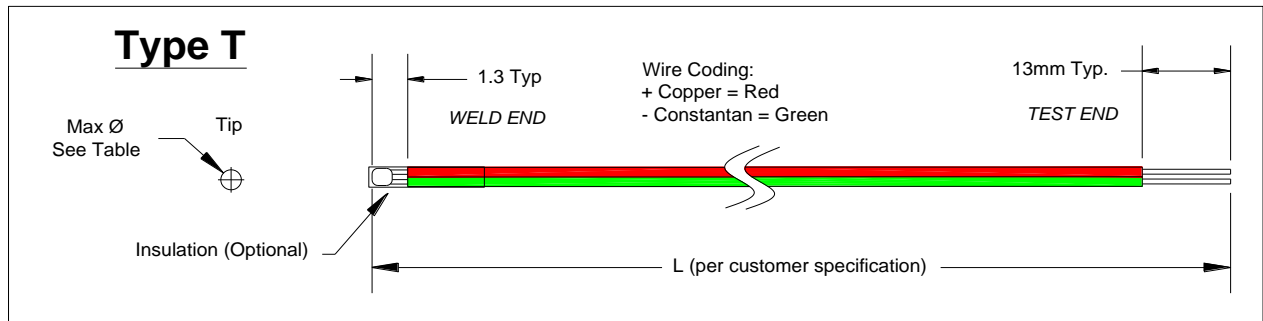
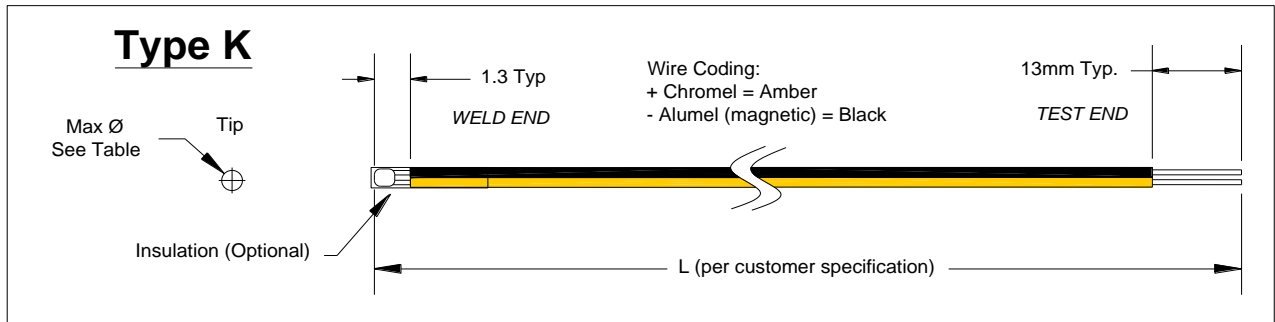
Parameters- Type K- 40AWG	+ Leg	- Leg
Wires	Chromel (Amber)	Alumel (Black) (magnetic)
Wire Insulation	Polyimide Primary/Nylon Bond Coat	
OD over insulation	0.0045 x 0.0075" max	
Tolerance	ANSI MC 96.1 special limits of error (± 1.1°C from 0 to Max Temp)	
Temperature Range of Use	-40 to +180C ^{note 1}	

TC-(K/T) Miniature Thermocouples

Parameters- Type T- 40AWG	+ Leg	- Leg
Wires	Copper (Red)	Constantan (Green)
Wire Insulation	Polyimide Primary/Nylon Bond Coat or Polyurethane Primary/Nylon Bond Coat	
OD over insulation	0.0045 x 0.0075" max	
Tolerance	ANSI MC 96.1 special limits of error (± 0.5°C from 0 °C to Max Temp)	
Temperature Range of Use	-40 to +180 °C ^{note 1}	

Note 1. Max temperature is limited by the Nylon bond coat. The Nylon bond coat will degrade above 180 °C resulting in separation of stands. In applications where this is permissible the Type K parts may be used up to the 240 °C temperature rating of the polyimide primary insulation, and the Type T thermocouples may be used up to 200 °C continuously or 240 °C for short periods (welded junctions only).

MECHANICAL DETAILS



PACKAGING

Thermocouples over 300mm in length are supplied on spools as shown. Spools are shipped in thermoformed plastic trays double bagged in non-lint producing bags.

