



MEAS MICRO-THERMOCOUPLES

- Welded or soldered
- Encapsulated or bare
- Bifilar construction
- Moisture seal (encapsulated only)
- Flexible tip
- High volume, low cost
- Custom packaging

Our Micro-Thermocouples (MTC) are flexible fine gage thermocouples used whenever fast, accurate temperature measurements are required. The thermocouple consists of two dissimilar metals, joined together at one end. A small voltage is produced by the two metals, which can be measured and interpreted by a control system. The dissimilar metals are individually insulated, and an overcoat is present to maintain an intimate bifilar configuration.

Features

- Junction Types:
 - » Welded, Soldered
- Joint Encapsulation Types:
 - » Polymer Encapsulated, Bare
- Thermocouple Gauges:
 - » 44 AWG, 40 AWG, 38 AWG, 36 AWG
- Wire Insulation
 - » Polyesterimide, Polyimide

Applications

- Medical



Individual Packaging on Spools

Dimensions

Model 600 Soldered, Non-Insulated Junction



Model 601 Welded, Non-Insulated Junction



Model 605 Soldered, Insulated Junction



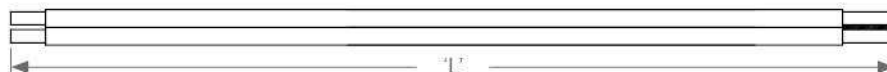
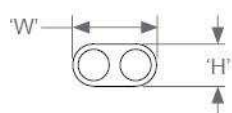
Model 606 Soldered Welded, Insulated Junction



Model 602 Welded Junction, Hypo Tube



Model 607 Soldered Junction, Polyimide Tube



Performance Specifications

Wire Strip Length (Tail): 0.50" \pm 0.25"

Solder Joint Length: 0.10" Max.

Encapsulation Length: 0.25" Max.

Encapsulation Profile:

0.010" Max. for 44 AWG

0.013" Max. for 40 AWG

0.015" Max. for 38 AWG

0.017" Max. for 36 AWG

Wire length tolerance: \pm 3.0"

Packaging: Sensors wrapped on white plastic spools

Note:

Specifications listed above are standard.

Other options are available upon request. Consult factory for details.

Commonly Stocked Wire

Type	AWG	Insulation Type	Insulation Color	Limits of Error
T	40	Polyesterimide	Green/Red	Special
T	40	Polyesterimide	Gold/Red	Special
T	44	Polyesterimide	Green/Red	Special
T	44	Polyesterimide	Black/Red	Special
T	36	Polyesterimide	Green/Red	Special
K	40	Polyimide	Amber/Black	Special

Ordering Information

Micro-Thermocouples					
Model	Junction Type	Junction Insulation	Profile	Common	Notes
600	Soldered (Lead Free)	Non-Encapsulated (Bare)	Low Profile (Flat)	Yes	Type T Only.
601	Welded	Non-Encapsulated (Bare)	Round Profile	Yes	Type K Only.
605	Soldered (Lead Free)	Insulated	Low Profile (Flat)	Yes	Type T Only. Encapsulation Rated to 200°C.
606	Welded	Insulated	Round Profile	Yes	Type K Only. Encapsulation Rated to 200°C.
602	Welded	Insulated	Round Profile	No	Type K Only. Junction Epoxy Potted in SS Hypo Tube. Rated to 140°C.
607	Soldered	Insulated	Round Profile	Yes	Type T Only. Junction Epoxy Potted in Polyimide Tube. Rated to 150°C.
Model	Thermocouple Type	Stocked Wire Gauges	Special Order Gauges	Common	
T	T [Constantan/Copper]	40 AWG, 44 AWG, 36AWG	38 AWG	Yes	
K	K [Alumel/Chromel]	40 AWG	44 AWG, 38 AWG, 36 AWG	Yes	
Model	Thermocouple Gauge	Bare Conductor Diameter	Bifilar Insulated Wire Profile	Common	
44	44 AWG	0.002"	0.0030" x 0.0060" (H x W) Max.	Yes	
40	40 AWG	0.003"	0.0041" x 0.0081" (H x W) Max.	Yes	
38	38 AWG	0.004"	0.0052" x 0.0104" (H x W) Max.	No	
36	36 AWG	0.005"	0.0065" x 0.0128" (H x W) Max.	Yes	
Model	Wire Insulation Type	Max. Temp		Common	
PE	Polyesterimide	180°C	Nylon Bond Coat	Yes	
PI	Polyimide	240°C	Nylon Bond Coat	No	
Model	Wire Length 'L'				
---	Define 'L' length in inches Example: (72.0 = 72.0"; 24.5 = 24.5")				
Model	Limits of Error	Limits for Type T	Limits for Type K	Common	
ST	Standard	± 1.0°C	± 2.2°C	Yes	
SP	Special	± 0.5°C	± 1.1°C	Yes	
C	Custom	± 0.2°C (Consult Factory)	Consult Factory	No	

*Consult factory for availability.

Standard Part Numbers*		
Part Number	Model Number	Description
R-12454-13	605-T-40-PE-71.0-SP	Type T, 40 AWG, 71", Polymer Insulated Tip, Solder Junction
R-12167-17	600-T-44-PE-71.0-SP	Type T, 44 AWG, 71", Bare, Soldered Junction
R-12167-21	605-T-44-PE-71.0-SP	Type T, 44 AWG, 71", Polymer Insulated Tip, Solder Junction
R-13022-1	600-T-40-PE-72.0-ST	Type T, 40 AWG, 72", Bare, Solder Junction

NORTH AMERICA

Tel +1 800 522 6752
customercare.ando@te.com

te.com/sensorsolutions

Measurement Specialties (MEAS), TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2018 TE Connectivity Ltd. family of companies All Rights Reserved.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TE Connectivity:](#)

[R-12167-21](#)