



Mineral Insulated Thermocouple Sensor With Threaded M8 Pot Seal & Tails

Product Code TMIP8T

Mineral Insulated Thermocouple

Mineral Insulated Thermocouple Sensor with Threaded M8 Pot Seal & Tails available in Types K, J, T, N and E.

These semi rigid thermocouple sensors are ideal for many applications from simple temperature measurement to the more robust of environments and are available with various sheath materials. The thermocouple junction is located at the tip and is generally insulated from the sheath to eliminate earth loops. The metal sheaths are impervious to liquids and gases and can withstand high pressure, high vacuum, high vibration and harsh environments in general. Smaller diameter sensors respond to temperature changes more rapidly than Note: Type K Thermocouple Shown for illustration only

larger diameters where as larger diameter sensors are mechanically stronger and have a longer operational life when used at high temperatures. The diameters range between 0.5mm up to 6.0mm and can be formed to shape particular applications without impairing performance. The typical bending radius is 10 x probe diameter but can be reduced to 4 x if required. The stainless steel Threaded M8 pot is crimped and resin sealed to prevent ingress of moisture and additionally allows for various cable styles to be utilised. The threaded pot enables the sensor to be secured onto fixtures or bulkheads utilising lock nuts available as an accessory. The sensor is supplied with 100mm long PFA insulated twisted flying tails constructed of 7/0.2mm conductor strands however other alternatives are available.

A wide range of instrumentation or accessories including extension cables, connectors, pockets, thermowells, adjustable compression fittings and lock nuts are available for this product.

- Accuracy to IEC 60584.1 2013 Class 2 (Class 1 also available) IEC 60584.3 2008 colour coded extension cables and connectors
- In House Calibration Service is also available Bespoke designs available upon request Stocked versions available to order

600 Inconel Alloy Good resistance to oxidation and extremely corrosive atmospheres at high temperatures.

Not recommended for use in sulphurous atmospheres

Nicrobell[®] Alloy Recommended for use with type K & N conductors, Nicrobell is a Ni/Ch/Si alloy that is suitable for use in reducing, oxidising and vacuum atmospheres

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Sensor Style	Mineral Insulated Thermocouple Sensor With Threaded M8 Pot Seal & Tails
Conductor/Thermocouple Type	Type K, Nickel – Chromium (+ Conductor) & Nickel – Aluminium (- Conductor)
	Type J, Iron (+ Conductor) & Constantan (- Conductor)
	Type T, Copper (+ Conductor) & Constantan (- Conductor)
	Type N, Nicrosil (+ Conductor) & Nisil (- Conductor)
	Type E, Nickel Chromium (+ Conductor) & Constantan (- Conductor)
Maximum Temperature Of Probe	Туре К (1100°С), Туре Ј (800°С), Туре Т (350°С), Туре N (1250°С), Туре Е (800°С)
Thermocouple Type/Metal Sheath	Type K, (310 Stainless Steel, 1100°C)
Materials & Temperature	Type K, T, J & E (321 Stainless Steel, 800°C)
	Type K & T (316 Stainless Steel, 800°C)
	Type K & N (Inc 600, 1100°C)
	Type K & N (Nicrobell®, (1250°C)
Maximum Temperature Of Pot	200°C (Standard)
Probe Diameters (D1)	0.5mm, 1.0mm, 1.5mm, 2.0mm, 3.0mm, 4.5mm & 6.0mm Ø
Pot Diameter (D2)	M8 X 1mm
Sensing Junction	Insulated (isolated) or Grounded (non-insulated) & Exposed
Number of Elements	Simplex or Duplex (Duplex above1.5mm Ø only)
Probe Length (L1)	As required in millimetres
Pot Length (L2)	35mm Including Crimp Ring
Extension Cable Length (L3)	100mm
Extension Cable Insulation	PFA, Twisted Singles, 7/0.2mm Ø (-75°C to +260°C)
	PVC, Flying Leads 7/0.2mm Ø (-10°C to +105°C)
	Glassfibre, Flying Leads 7/0.2mm Ø (-60°C to +400°C)
	Glassfibre, Flying Leads 7/0.2mm Ø High Temperature (-60°C to +400°C)
	Silicone Rubber, Flying Leads 7/0.2mm Ø (-60°C to +200°C)
Termination	Tails, Spade Terminals, Miniature, Standard Plug Or Socket, Connector Block
Installation Compression Fittings	Brass or Stainless Steel In Tapered and Parallel
	• ½" BSPT, ½" BSP • ¼" BSPT, ¼" BSP • ½" BSPT, ½" BSP

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