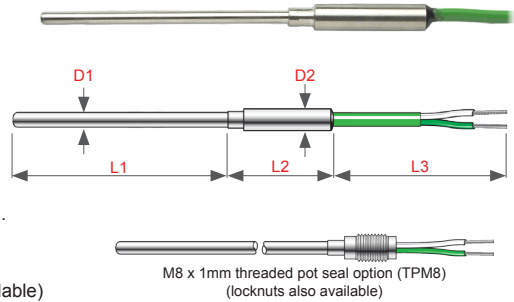


## TPM Mineral Insulated Thermocouple Sensor with Pot Seal

Available with probe diameters ranging from 0.5mm up to 8.0mm and supplied with a crimped stainless steel pot seal. The pot is epoxy resin sealed to prevent moisture ingress (resin rated for continuous use up to +135°C). A high temperature resin is also available for continuous use up to +220°C. Various probe sheath materials are available and the sensors can be used in a wide variety of applications, with temperatures ranging from as low as -100°C and up to +1300°C. The mineral insulated construction enables the sensors to be bent, twisted or flattened without impairing performance. The bending radius of the sheath is 10 x probe diameter; this can be reduced to 4 x, if a bending set is used.

- 0.5, 1.0, 1.5, 2.0, 3.0, 4.5, 6.0 and 8.0mm Ø probe options
- Accuracy to IEC 60584.2 Class 2 (Class 1 also available)
- Standard epoxy resin seal rated up to +135°C (+220°C also available)
- Colour coded to IEC 60584.3 (BS EN 60584.3)
- Ex-stock options available



Note: Type K thermocouple shown for illustrative purposes only

1	Sensor Type	Code
	Mineral Insulated Thermocouple Sensor with Pot Seal	<b>TPM</b>
	Mineral Insulated Thermocouple Sensor with High Temperature Pot Seal (+220°C)	<b>TPMA</b>
	Mineral Insulated Thermocouple Sensor with Threaded Pot Seal (0.5, 1.0, 1.5, 2.0, 3.0mm Ø probe only)	<b>TPM8</b>
	Mineral Insulated Thermocouple Sensor with High Temperature Threaded Pot Seal (0.5, 1.0, 1.5, 2.0, 3.0mm Ø probe only)	<b>TPM8A</b>

2	Conductor/Thermocouple Type (IEC 60584.2)	Conductor Temperature Range	Code
<b>K</b>	Nickel Chromium vs. Nickel Aluminium	0°C to +1100°C	<b>K</b>
<b>J</b>	Iron vs. Constantan	-50°C to +750°C	<b>J</b>
<b>T</b>	Copper vs. Constantan	-200°C to +350°C	<b>T</b>
<b>N</b>	Nicrosil vs. Nisil	0°C to +1200°C	<b>N</b>
<b>E</b>	Nickel Chromium vs. Constantan	-200°C to +900°C	<b>E</b>

3	Metal Sheath Material	Available in Thermocouple Types	Temperature Range	Code
	321 Stainless Steel	K, J, T, E	0°C to +800°C	<b>321</b>
	310 Stainless Steel	K	0°C to +1100°C	<b>310</b>
	Inconel 600	K, N	0°C to +1100°C	<b>600</b>
	Nicrosil D	K, N	0°C to +1300°C	<b>200</b>

4	Probe Diameter (D1)	Pot Seal Ø (D2)	Code	Probe Diameter (D1)	Pot Seal Ø (D2)	Code
	0.5mm	6.0mm x 31mm	<b>0.5</b>	3.0mm	6.0mm x 31mm	<b>3.0</b>
	1.0mm	6.0mm x 31mm	<b>1.0</b>	4.5mm	9.5mm x 31mm	<b>4.5</b>
	1.5mm	6.0mm x 31mm	<b>1.5</b>	6.0mm	9.5mm x 31mm	<b>6.0</b>
	2.0mm	6.0mm x 31mm	<b>2.0</b>	8.0mm	12.0mm x 31mm	<b>8.0</b>

\* Pot seal dimensions may vary (standard dimensions shown). Length includes crimp collar.

5	Sensing Junction	Number of Channels	Code
Insulated (isolated, ungrounded)		Simplex	<b>I</b>
		Duplex	<b>2I</b>
Grounded (non-isolated)		Simplex	<b>G</b>
		Duplex	<b>2G</b>

6	Probe Length (mm) (L1)	Code
As required to suit your application (stock sensors also available)	<b>e.g. 300</b>	

7	Extension Cable Length (mm) (L3)	Cable Insulation	Code
As required to suit your application (e.g. 500mm)		PFA Insulated Tails	<b>PFA7</b>
		Heat Resistant PVC, 7/0.2mm Ø (+105°C)	<b>CP10</b>
		PFA, 7/0.2mm Ø (+260°C)	<b>CT45</b>
		Fibreglass, 7/0.2mm Ø (+400°C)	<b>CG32</b>
		Fibreglass (St/St Braid), 7/0.2mm Ø (+400°C)	<b>CG39</b>

8	Optional Thermocouple Connector (supplied attached to cable)	Code
	Miniature Thermocouple Plug (K, J, T, N, E)	<b>FMP</b>
	Miniature Thermocouple Socket (K, J, T, N, E)	<b>FMJ</b>
	Standard Thermocouple Plug (K, J, T, N, E)	<b>RSP</b>
	Standard Thermocouple Socket (K, J, T, N, E)	<b>RSJ</b>

9	Optional 316 Stainless Steel Compression Fittings							
	To Suit Probe Ø	1/8" BSPT	1/4" BSPT	To Suit Probe Ø	1/8" BSPT	1/4" BSPT	1/2" BSPT	
	0.5mm	<b>CF05AS</b>	-	3.0mm	<b>CF30AS</b>	<b>CF30CS</b>	<b>CF30ES</b>	
	1.0mm	<b>CF10AS</b>	-	4.5mm	<b>CF45AS</b>	<b>CF45CS</b>	<b>CF45ES</b>	
	1.5mm	<b>CF15AS</b>	<b>CF15CS</b>	6.0mm	<b>CF60AS</b>	<b>CF60CS</b>	<b>CF60ES</b>	
	2.0mm	<b>CF20AS</b>	<b>CF20CS</b>	8.0mm	-	<b>CF80CS</b>	<b>CF80ES</b>	

Braze adjustable compression fittings also available. See page 63 for our full range.

Order Code (example)	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
	<b>TPM</b>	<b>- K</b>	<b>- 310</b>	<b>- 3.0</b>	<b>- I</b>	<b>- 500</b>	<b>- 500mm CP10</b>	<b>- RSP</b>	<b>- CF30AS</b>