

Pt100 RTD Probes & Thermocouples for Industrial Applications

- ✓ Pt100 in class A, 1/3 DIN and 1/10 DIN available
- ✓ Thermocouples J, K, T, E & L with accuracy to IEC class 1
- ✓ Temperature range -100°C to +400°C
- ✓ Standard closed end sensors or airstream models available
- ✓ Standard lengths up to 200mm, optional lengths of 201-500mm
- ✓ Diameter 2mm, 3mm or 6mm
- ✓ A range of mounting threads
- ✓ All Pt100 sensors have a 4-wire connection
- ✓ A broad range of lead wire materials available

Omega temperature probes for industrial applications are produced with a wide variety of mechanical attachment systems suitable for a range of process conditions.

They may be specified to your precise requirements by the sensor type in either a closed-end or airstream version, accuracy, probe length, different threads, wire material in shielded and unshielded versions.



AVAILABLE VERSIONS:

Probe Type	Style	Accuracy	Diameter	Probe Length	Mounting Bush	Lead Wire Insulation	Lead Wire Length
P-Pt100 P10-Pt1000 J-Thermocouple J K-Thermocouple K T-Thermocouple T L-Thermocouple L E-Thermocouple E N-Thermocouple N	M-Closed end NP-Penetration tip L-Airstream Probe H-Hand Held Probe EH-Hand-held probe with penetration tip	P-Pt100(4-wire): A-Class A 1/3-1/3 DIN B 1/10-1/10 DIN B Thermocouples: 1-Class 1 (standard)	6-6mm 3-3mm 2-2mm	5-200mm 200-500mm	O-Plain stem M6-M6x1 pitch M8-M8x1 pitch M10-M10x1 pitch G1/8-1/8" BSP PI. G1/4-1/4" BSP PI. G1/2-1/2" BSP PI.	M12-M12 Connector P-PVC S-Silicone Rubber T-Teflon (FEP) G-Glass Fibre PS-PVC Shielded TS-Teflon Shielded GS-Glass Shielded	XM-Cable length in metres



Specifications

Temperature range:
-100°C to +400°C

Lead wire temperature range:
PVC 100°C (max), Silicone rubber 200°C (max), Teflon 250°C (max), Fibreglass 400°C (max)

Sheath material:
Stainless steel grade 316

Maximum pressure (Closed End):
Ø6mm - 40bar, Ø3mm - 20bar

Response time T66 in liquid:
Pt100 closed end probe: 3 seconds
Thermocouple: 4 seconds

Response time T66 in air:
Pt100 closed end probe 15 seconds
Thermocouples: 5 seconds

Sensor Configuration:
Pt100: 4-wire system
Thermocouples: Ungrounded

The standard temperature range is -100°C to +400°C. Selection of the wire insulation, i.e. PVC, Silicone, Teflon or Glass will effect the maximum probe temperature. Do not exceed the maximum temperature of the insulation at the transition between the probe and wire.

Ordering Guide				
Model No	Description	Ordering Code	Price £	
Probe Type	Pt100 to IEC 751	P	32.00	
	Pt1000	P10	32.00	
	Thermocouple type J, Iron/Constantan to IEC 584	J	24.00	
	Thermocouple type K, NiCr/NiAl to IEC 584	K	24.00	
	Thermocouple type T, Copper/Constantan to IEC 584	T	24.00	
	Thermocouple type L, Iron/Constantan to DIN 43710	L	24.00	
Style	Closed end	M	--	
	Penetration tip	NP	10.00	
	Airstream probe	L	--	
	Hand-held probe	H	14.50	
	Hand-held probe with penetration tip	EH	16.50	
Sensor Accuracy*	Pt100	Class A (1/2 DIN Class B – Standard)	A	--
		1/3 DIN Class B	1/3	5.50
	Thermocouples	1/10 DIN Class B	1/10	22.00
		Class 1 (Standard)	1	--
Stem Diameter	6mm	6	--	
	3mm	3	9.50	
	2mm	2	14.50	
Stem Length	5-200mm	5-200	--	
	201-500mm	201-500	5.50	
Process Connection**	Plain stem (Standard)	0	--	
	M6 x 1mm pitch thread (Ø3mm probes)	M6	9.50	
	M8 x 1mm pitch thread (Ø3mm-Ø6mm probes)	M8	9.50	
	M10 x 1mm pitch thread (Ø3mm-Ø6mm probes)	M10	9.50	
	1/8" BSP Parallel (G1/8" – Ø3mm-Ø6mm probes)	G1/8"	13.00	
	1/4" BSP Parallel (G1/4" – Ø3mm-Ø6mm probes)	G1/4"	13.00	
	1/2" BSP Parallel (G1/2" – Ø6mm probes)	G1/2"	13.00	
	M12 Plug Instead of Cable	M12	10.00	
Lead wire insulation (Price per metre)	PVC 100°C maximum	P	0.75	
	Silicone Rubber 200°C maximum	S	1.50	
	Teflon 250°C maximum	T	1.85	
	Fibreglass 400°C maximum	G	2.95	
	PVC with internal tinned copper braid 100°C maximum	PS	1.10	
	Teflon with internal tinned copper braid 200°C maximum	TS	2.25	
		GS	3.30	
Lead Wire Length***	xm	X		

* Thermocouples are supplied with Class 1 accuracy as standard. ** The probe diameters shown above are available with the thread sizes indicated. *** The lead wire is supplied in multiples of one metre.

Ordering example 1: K-L-1-3-50-PS-1

Thermocouple type K airstream probe with Class 1 accuracy and diameter of 3mm. The probe length is 50mm with 1 metre of PVC shielded lead wire.

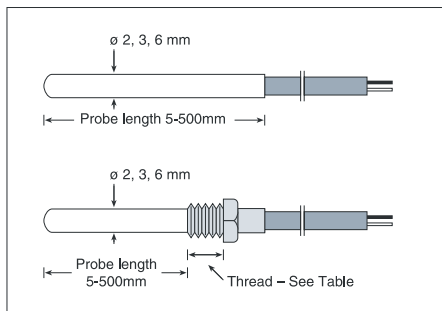
Base price - K £24.00
 Additional price for 3mm diameter £9.50
 Additional price for PVC shielded lead wire @ £1.10/metre £1.10
Total Price £34.60

Ordering example 2: P-M-1/3-6-100-M10-S-8

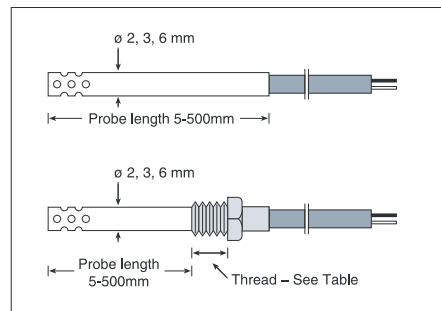
Pt100 closed end probe with 1/3 DIN accuracy and diameter of 6mm. The probe length is 100mm with an M10 x 1 mounting bush and 8 metres of silicone lead wire.

Base price - P £32.00
 Additional price for 1/3 DIN accuracy £5.50
 Additional price for M10 process connection £9.50
 Additional price for silicone lead wire @ £1.50/metre £12.00
Total Price £59.00

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