

Hand Held Thermometers 2000 Series

The MM2000 series carry a two year warranty as standard. All instruments are microprocessor driven, providing exceptionally high accuracy and long term stability. They also feature a very wide operating range (-30 to 50°C), have a resolution of 0.1 to 1000 and are autoranging.

All instruments are designed to be waterproof to IP67 standards. All instruments are supplied complete with a thermoplastic rubber boot.

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ALL THERMOCOUPLE INSTRUMENTS GIVE A CHOICE OF SEVEN THERMOCOUPLE TYPES:



Single Input Thermocouple Thermometer

- ◆ Seven thermocouple types
- ◆ °C/°F selectable
- ◆ Self calibrating
- ◆ Refer to pages B1-6 to B1-9 for compatible probes



Multi Function Thermocouple Thermometer

- ◆ Max/Min functions
- ◆ Hold function
- ◆ Dual display
- ◆ °C/°F/°A selectable
- ◆ Simultaneous display of real time
- ◆ Max/Min/Hold measurement
- ◆ Self calibrating
- ◆ Refer to pages B1-6 to B1-9 for compatible probes



Dual Input Thermocouple

- ◆ Dual input
- ◆ Seven thermocouple types
- ◆ Differential display
- ◆ °C/°F/°A selectable
- ◆ Simultaneous display of both inputs or differential and input 1
- ◆ Self calibrating



Thermocouple Thermometer/Simulator

- ◆ Simulation of thermocouple output
- ◆ Seven thermocouple types
- ◆ Millivolt measurement/output
- ◆ °C/°F/°A selectable
- ◆ Self calibrating



Thermistor Thermometer

- ◆ °C/°F selectable
- ◆ Wide measurement range (-50 to 150°C)
- ◆ Very high accuracy
- ◆ Self calibrating
- ◆ Refer to page B1-10 for compatible probes



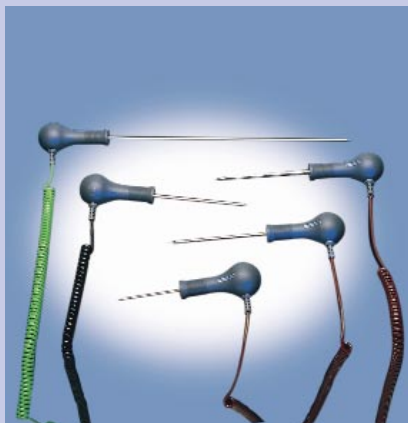
PT100 Thermometer

- ◆ Two/three/four wire measurement
- ◆ Max/Min functions
- ◆ Hold function
- ◆ Dual display
- ◆ °C/°F/°A selectable
- ◆ Simultaneous display of real time and max/min/hold measurement
- ◆ Self calibrating
- ◆ Refer to page B1-10 for compatible probes



PARAMETERS	2000	2010	2020	2030	2040	2050
Operating Ambient	-30 to 50°C					
Range	-200 to 1372°C	-200 to 1372°C	-200 to 1372°C	-200 to 1372°C	-50 to 150°C	-200 to 850°C
Sensor Type	K, T, R, N, J, E, S	K, T, R, N, J, E, S	K, T, R, N, J, E, S	K, T, R, N, J, E, S+mV	Thermistor	PT100
Temperature Scales	°C/°F	°C/°F/°A	°C/°F/°A	°C/°F/°A	°C/°F	°C/°F/°A
Features		Max, Min, Hold	Dual Input Diff, Hold	Simulate		Max, Min, Hold
Accuracy @ 23°C	± 0.2°C ± 0.15% of reading			± 0.2°C ± 0.1% of reading	± 0.2°C	± 0.2°C ± 0.15% of reading
Cold Junction Compensation	0.075°C/°C					
Characterising Errors	Less than 0.05°C					
Temperature Coefficient	0.01% of reading /°C					
Resolution	0.1°, to 1° above 1000° (auto ranging)					
Battery	9V PP3					
Battery Life	Greater than 200 Hours					
Dimensions	130x70x33 mm					
Weight	155g					

Hand Held Penetration Probes



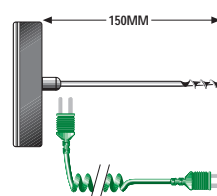
The hand held sensors come in two types, a ball shape for ease of penetration and a straight handle for greater control. Both styles are made from polypropylene. They are totally encapsulated, increasing strength, durability and ensuring the sensor is entirely waterproof. Polyurethane cables are used as standard (as opposed to PVC) for the enhanced memory of their curl, greater retractability and strength.

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Frozen Food Probe

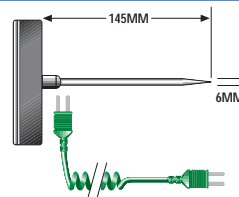
- ◆ Designed to measure semi solid/ solid frozen food temperature
- ◆ Corkscrew design to allow ease of penetration
- ◆ Detachable curly lead prevents entanglement



TYPE	TEMP RANGE	ORDER CODE
K	-100 +280	KPO1
T	-100 +280	TPO1

Heavy Duty Probe

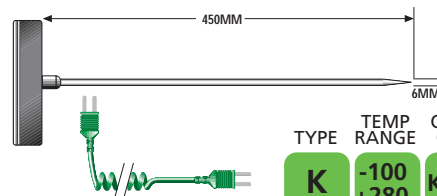
- ◆ Designed for use in food storage, cooking and chilling
- ◆ 6 mm diameter shaft and pencil point tip allow ease of penetration
- ◆ Supplied with detachable curly lead and fitted plugs



TYPE	TEMP RANGE	ORDER CODE
K	-100 +280	KPO2
T	-100 +280	TPO2

Extended Heavy Duty Needle Probe

- ◆ Designed for deep penetration into semi-solid products
- ◆ 6 mm shaft, 430 mm long with pencil tip for easy penetration
- ◆ Supplied with detachable curly lead and fitted plugs

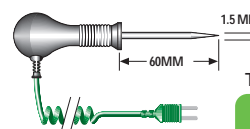


TYPE	TEMP RANGE	ORDER CODE
K	-100 +280	KPO3
T	-100 +280	TPO3

Hand Held Needle Probes

Small Diameter Needle Probe

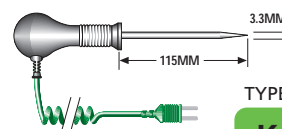
- ◆ Designed for use in semi-solid materials
- ◆ Fitted with 2 m curly cable and miniature plug
- ◆ Waterproof



TYPE	TEMP RANGE	ORDER CODE
K	-100 +600	KPO4
T	-100 +400	TPO4

General Purpose Needle Probe

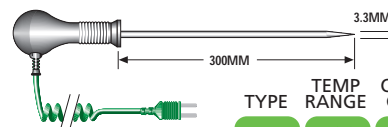
- ◆ Designed for cooked/chilled products, or any semi-solid material
- ◆ Waterproof
- ◆ For use wherever penetration of semi-solid product is required



TYPE	TEMP RANGE	ORDER CODE
K	-100 +600	KPO5
T	-100 +400	TPO5

Extended Needle Probe

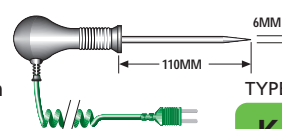
- ◆ Extended version of the standard needle probe
- ◆ Ideal for applications requiring extended penetration
- ◆ Waterproof



TYPE	TEMP RANGE	ORDER CODE
K	-100 +600	KPO6
T	-100 +400	TPO6

Heavy Duty Needle Probe

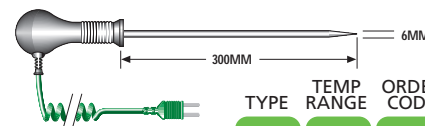
- ◆ Designed with 6 mm diameter shaft
- ◆ With pencil point tip for ease of penetration
- ◆ Ideal for measurement of semi-solid or solid materials
- ◆ Waterproof



TYPE	TEMP RANGE	ORDER CODE
K	-100 +600	KPO7
T	-100 +400	TPO7

Extended Heavy Duty Needle Probe

- ◆ Ideal for deep penetration and measurement of semi-solid material
- ◆ Ideal for below surface applications
- ◆ Waterproof



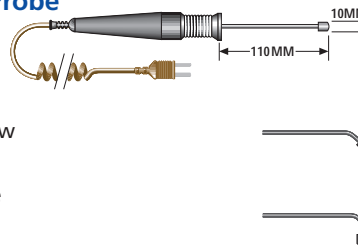
TYPE	TEMP RANGE	ORDER CODE
K	-100 +600	KPO8
T	-100 +400	TPO8

Hand Held Surface Probes



Fast Response Ribbon Probe

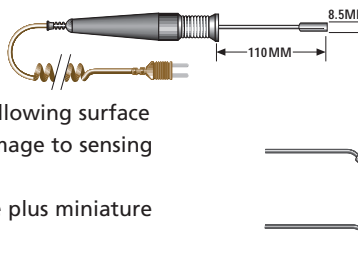
- ◆ Excellent accuracy
- ◆ Fast response
- ◆ Ideal for measurement of surface temperatures below 250°C
- ◆ Fitted with 2 m curly cable



TYPE	TEMP RANGE	ORDER CODE
K	-50 +250	KS01
K	-50 +250	KS02
K	-50 +250	KS03

General Purpose Sprung Shield Surface

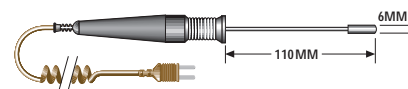
- ◆ Designed for surface measurement in type 'T' material
- ◆ Has spring loaded shield allowing surface measurement without damage to sensing wires
- ◆ Fitted with 2 m curly cable plus miniature plug



TYPE	TEMP RANGE	ORDER CODE
T	-50 +250	TS04
T	-50 +250	TS05
T	-50 +250	TS06

High Temperature General Purpose Probe

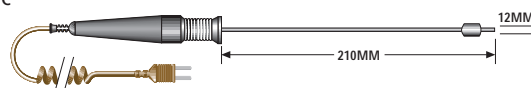
- ◆ Ideal for measuring surfaces up to 600°C
- ◆ Fast response
- ◆ Fitted with a small spring loaded shield
- ◆ Fitted with 2 m curly cable and miniature plug



TYPE	TEMP RANGE	ORDER CODE
K	-50 +600	KS07

Extra High Temperature Probe

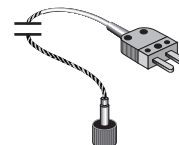
- ◆ Spring loaded tip housed in ceramic
- ◆ Extended shaft
- ◆ Ideal for high temperature measurement at a safe distance
- ◆ Fitted with 2 m curly cable and miniature plug



TYPE	TEMP RANGE	ORDER CODE
K	-50 +950	KS08

Magnetic Surface Probe

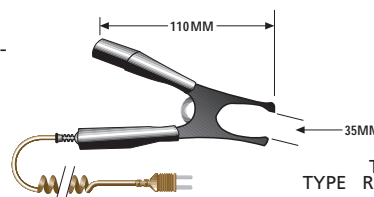
- ◆ Button type magnet
- ◆ Spring loaded thermocouple junction
- ◆ 2 m of PTFE twin twisted cable plus miniature plug



TYPE	TEMP RANGE	ORDER CODE
K	-50 +150	KS09
T	-50 +150	TS09

Pipe Clamp Probe

- ◆ Ideal for measurement of pipe temperatures, flow and return and radiator balancing
- ◆ Supplied with 2 m of curly cable plus miniature plug
- ◆ Other sizes available



TYPE	TEMP RANGE	ORDER CODE
K	-50 +150	KPS10
T	-50 +150	TPS10

Velcro Probe

- ◆ Designed to measure the temperature of pipes
- ◆ The probe may be wrapped around pipes of varying sizes
- ◆ The design ensures that the sensor is kept in good thermal contact with the surface of the pipe



TYPE	TEMP RANGE	ORDER CODE
K	-50 +150	KVEL01
T	-50 +150	TVEL01

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Hand Held Air Probes



Fine Wire Thermocouple Sensors

- ◆ Allow fast response and excellent repeatability
- ◆ Used for applications such as air, liquid or surface temperatures



P.T.F.E. insulation 0.2mm dia wire

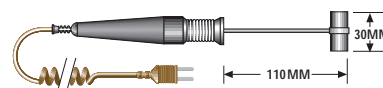


Glass fibre insulation 0.2mm dia wire

TYPE	TEMP RANGE	ORDER CODE
K	-100 +250	KA01
T	-100 +250	TA01
K	-100 +650	KA02
T	-100 +400	TA01

Air Probe (Moving Air)

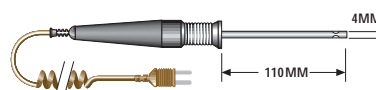
- ◆ Ideal for the measurement of air and gases
- ◆ Funnelled shield allows maximum airflow across measuring junction
- ◆ Supplied with 2 m curly cable plus miniature plug



TYPE	TEMP RANGE	ORDER CODE
K	-50 +400	KA03
T	-50 +400	TA03

General Purpose Air Probe (Still Air)

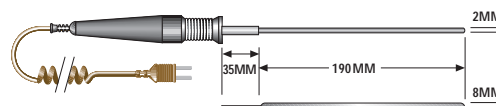
- ◆ Designed for measuring air or gas temperatures in ducts or pipes
- ◆ Ideal for temperature measurement in small openings
- ◆ Fitted with sensor protection shield
- ◆ Supplied with 2 m curly cable plus miniature plug



TYPE	TEMP RANGE	ORDER CODE
K	-50 +400	KA04
T	-50 +400	TA04

Flat Food Probe

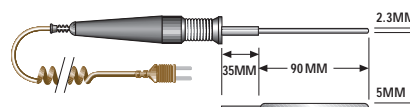
- ◆ Designed for measuring temperature between boxes
- ◆ Ideal for air and liquid measurement
- ◆ Supplied with 2 m curly cable plus miniature plug



TYPE	TEMP RANGE	ORDER CODE
K	-50 +250	KA05
T	-50 +250	TA05

Fast Response Flat Food Probe

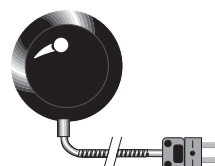
- ◆ Designed for measuring temperature between boxes
- ◆ Ideal for air and liquid measurement
- ◆ Supplied with 2 m curly cable with miniature plug



TYPE	TEMP RANGE	ORDER CODE
K	-50 +400	KA12
T	-50 +400	TA12

High Accuracy Black Body

- ◆ Designed to give a true reflection of temperature by imitating a black body i.e absorbs all radiation incident upon it
- ◆ Supplied with 2m glass fibre S/S over-braided plus miniature plug

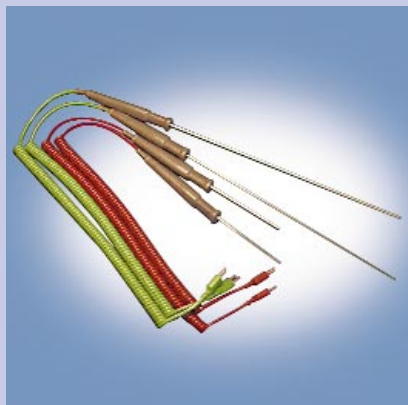


TYPE	TEMP RANGE	ORDER CODE
K	-100 +650	KA06
T	-100 +250	TA06

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Hand Held General Purpose Probes



Hand Held Mineral Insulated Probes

Ideal for temperatures up to 1100°C. The material can be bent without affecting performance. Excellent for measurement of air, gas, liquid and applications requiring difficult access. Supplied with 2 m curly cable with miniature plug. Other thermocouple types and lengths can be supplied upon request

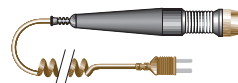
	TYPE	TEMP RANGE	ORDER CODE
	K	-50 +1100	KMO1
	T	-50 +400	TMO1
	K	-50 +1100	KMO2
	T	-50 +400	TMO2
	K	-50 +1100	KMO3
	T	-50 +400	TMO3
	K	-50 +1100	KMO4
	T	-50 +400	TMO4

Hand Held Plug Mounted Probes

These probes are moulded directly into miniature thermocouple plugs, giving a waterproof and robust assembly. A handle is available which includes a thermocouple socket and a flexible holding piece that ensures the probe is held in place.

Handle Probe

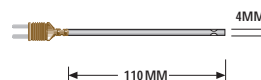
- ◆ These probes are used in conjunction with the range of plug-mounted probes.
- ◆ They provide a handle for all the plug-mounted probes.



TYPE	TEMP RANGE	ORDER CODE
K	+250	KHO1
T	+250	THO1

Air Probe

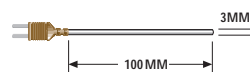
- ◆ Fast response sensor
- ◆ Comprising an exposed thermocouple junction protected by a perforated stainless steel sheath
- ◆ Ideal for use in heating and ventilation work allowing for temperature measurement with a simple one-handed operation.



TYPE	TEMP RANGE	ORDER CODE
K	+250	KHA02
T	+250	THA02

General Purpose Probe (Mineral Insulated)

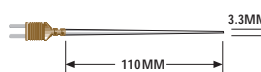
- ◆ A 3 mm diameter mineral insulated probe
- ◆ 100 mm long
- ◆ Stainless steel sheath



TYPE	TEMP RANGE	ORDER CODE
K	+250	KHMO1
T	+250	THMO1

Insertion Probe

- ◆ Features a pencil tip
- ◆ Ideal for measuring temperatures of semi-solids

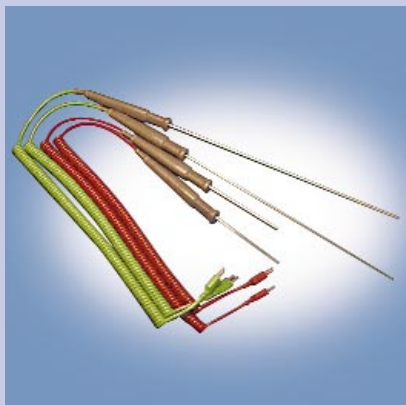


TYPE	TEMP RANGE	ORDER CODE
K	+250	KHNO1
T	+250	THNO1

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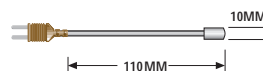
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Hand Held General Purpose Probes



Surface Probe (Band)

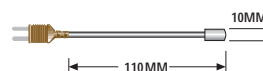
- ◆ Fast response for surface temperature measurement
- ◆ Uses a thin stainless steel band for contacting the surface



TYPE	TEMP RANGE	ORDER CODE
K	+250	KHSO1

Surface Probe (Sprung Shield)

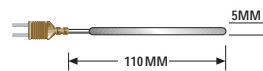
- ◆ Features a sprung draught shield which serves to protect the tip when not in use
- ◆ Also features a thin metal disc giving a low thermal mass, providing a fast response



TYPE	TEMP RANGE	ORDER CODE
K	+250	KHSO2
T	+250	THSO2

Spatula Probe

- ◆ Designed to take the temperature between cartons
- ◆ Constructed from food grade stainless steel

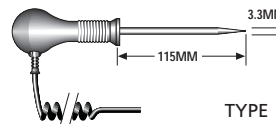


TYPE	TEMP RANGE	ORDER CODE
K	+250	KHSP01
T	+250	THSP01

Hand Held Thermistor Probes

Penetration Probe

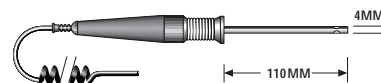
- ◆ Ideal for measurement of semi-solid products
- ◆ Fitted with 2 m curly cable plus jack plug



TYPE	TEMP RANGE	ORDER CODE
PTC	-50 +150	PTCP05

Air Probe (Moving Air)

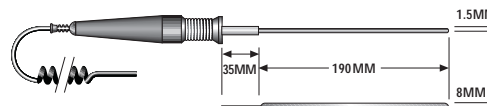
- ◆ Ideal for measurement of air and gases
- ◆ Funnelled shield allows maximum air flow across measuring junction
- ◆ Supplied with 2 m curly cable plus jack plug



TYPE	TEMP RANGE	ORDER CODE
PTC	-50 +150	PTCA04

Flat Food Probe

- ◆ Designed for measuring temperatures between boxes
- ◆ Ideal for air and liquid measurement
- ◆ Supplied with 2 m of curly cable plus jack plug

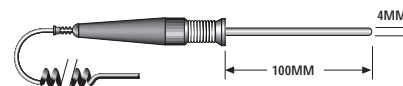


TYPE	TEMP RANGE	ORDER CODE
PTC	-50 +150	PTCA12

Hand Held Platinum Resistance Probes

Immersion Probe

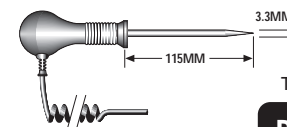
- ◆ High accuracy probe for temperature measurement of gas or liquid
- ◆ Standard sensors are calibrated to class 'B'. Class 'A' can be supplied upon request
- ◆ Supplied with 2 m curly cable



TYPE	TEMP RANGE	ORDER CODE
PRT	-50 +500	PRTM01

Penetration Probe

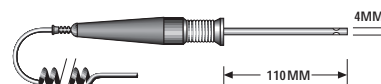
- ◆ Ideal for measurement of semi-solid products
- ◆ Supplied with 2 m curly cable



TYPE	TEMP RANGE	ORDER CODE
PRT	-50 +500	P RTP05

Air Probe (Moving Air)

- ◆ Ideal for the measurement of air and gases
- ◆ Funnelled shield allows maximum air-flow across measuring junction
- ◆ Supplied with 2 m curly cable



TYPE	TEMP RANGE	ORDER CODE
PRT	-50 +500	PRTA04

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