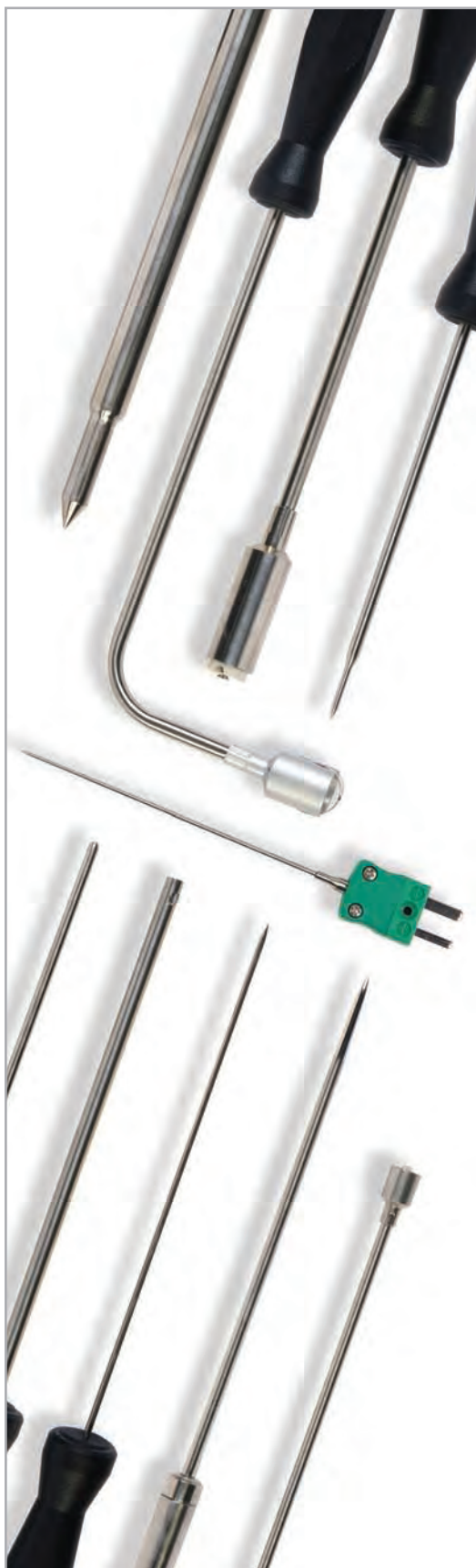


Temperature Probes

thermocouple



Thermometers are only part of the system; of equal importance is the design of the temperature probes used to physically measure the item. We manufacture an extensive range of probes to complement our range of portable, hand held thermometers and data-loggers.

response times

The response time is the time taken for the sensor to reach 66.6% of the final reading and is the industry standard means of measuring probe response times. Five times the quoted response time is the figure normally required to obtain 100% of the reading. Response times are dependent upon the substance being measured and in the case of liquid or gas, upon the degree of agitation. It is therefore difficult to quote an accurate response time without knowledge of the application.

The results given in this catalogue were obtained in a stirred oil bath and may differ from those obtained under other conditions but can be used as a general guide when selecting probes.

handle types

As standard and where appropriate, each probe is supplied with a hexagonal, ribbed heavy duty or T-shaped handle.



Hexagonal - manufactured from nylon and available in black. Maximum temperature is 105 °C.

Ribbed Heavy Duty - manufactured from polypropylene and available in black or white. Maximum temperature is 85 °C.



T-shaped - manufactured from polypropylene and available in black or white. Maximum temperature is 85 °C.

Biomaster - To reduce bacterial growth, hexagonal and ribbed handles contain 'Biomaster' anti-bacterial additive, as standard.

lead types










PVC straight lead is a general purpose lead and available in lengths up to 100 metres. As standard and where appropriate, each probe is supplied with a one metre straight PVC lead. As an alternative, a one metre coiled PU lead is available. For hand held type T thermocouple probes, replace the third digit (3) of the order code with the number 7. Maximum temperature for both PVC and PU leads is 80 °C.

applications

Applications quoted are typical for the specific probe, although there are many alternative uses for which the probe could be equally suitable. For advice on a specific probe for a particular application, please contact the sales team. Where requirements cannot be met from the existing standard range of probes, then bespoke designs can be manufactured.









Hand Held Temperature Probes

type K thermocouple

		order code	£ each
penetration probe  Ø3.3 x 130 mm	This stainless steel penetration probe is strong, versatile and ideal for measuring liquids and semi-solids. <ul style="list-style-type: none"> • response time less than 3 seconds • probe temperature range -75 to 250 °C 	123-160	28.50
		323-160 <i>(coiled lead)</i>	29.50
penetration probe  Ø3.3 x 300 mm	This extended, stainless steel penetration probe is strong, versatile and ideal for measuring liquids and semi-solids. <ul style="list-style-type: none"> • response time less than 3 seconds • probe temperature range -75 to 250 °C 	123-168	33.50
		323-168 <i>(coiled lead)</i>	34.50
fast response probe  Ø3.3 x 100 mm	This reduced tip, fast response, stainless steel penetration probe is ideal for liquids or semi-solids i.e. soft rubber and other similar materials. <ul style="list-style-type: none"> • response time less than 2 seconds • probe temperature range -75 to 250 °C 	123-159	31.50
		323-159 <i>(coiled lead)</i>	32.50
needle penetration probe  Ø1.8 x 130 mm	This fast response, stainless steel needle penetration probe is ideal for liquids or semi-solids i.e. soft rubber or plastic. <ul style="list-style-type: none"> • response time less than 2 seconds • probe temperature range -75 to 250 °C 	123-100	30.50
		323-100 <i>(coiled lead)</i>	31.50
oven probe  Ø3.3 x 130 mm	This oven probe has a stainless steel handle and a two metre PTFE high temperature lead. An oven probe without a handle is available. <ul style="list-style-type: none"> • response time less than 4 seconds • probe temperature range -75 to 250 °C 	133-170	44.50
		133-173 <i>(no handle)</i>	21.50
rigid between pack probe  Ø4.5 x 130 mm	This rigid, stainless steel between pack probe is strong and versatile, designed specifically to measure between packets or boxes of produce. <ul style="list-style-type: none"> • response time less than 3 seconds • probe temperature range -75 to 250 °C 	123-060	31.50
		323-060 <i>(coiled lead)</i>	32.50
high temperature probe  Ø1.5 x 130 mm	This flexible, mineral insulated (MI) probe can be bent to any shape without affecting its performance. Ideal for measuring high temperatures i.e. fryers or furnaces. <ul style="list-style-type: none"> • response time less than 2 seconds • probe temperature range -200 to 1100 °C 	123-204	31.50
		323-204 <i>(coiled lead)</i>	32.50
high temperature probe  Ø3 x 130 mm	This flexible, mineral insulated (MI) probe can be bent to any shape without affecting its performance. Ideal for measuring high temperatures i.e. fryers or furnaces. <ul style="list-style-type: none"> • response time less than 2 seconds • probe temperature range -200 to 1100 °C 	123-212	31.50
		323-212 <i>(coiled lead)</i>	32.50
high temperature probe  Ø3 x 300 mm	The above flexible, mineral insulated (MI) probe is also available with an extended 300 mm probe.	123-213	41.50
		323-213 <i>(coiled lead)</i>	42.50

Hand Held Temperature Probes

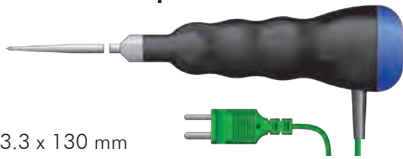
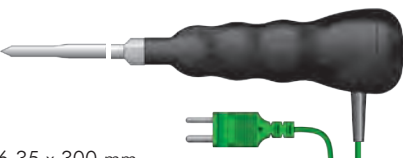
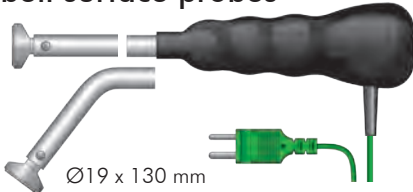
type K thermocouple

		order code	£ each
Binder probe  Ø3 x 130 mm	This rounded tip, stainless steel probe is designed for inserting into Binder self-sealing glands to measure the temperature of vessels or radiators. <ul style="list-style-type: none"> • response time less than 3 seconds • probe temperature range -75 to 250 °C 	123-240	29.50
		323-240 <i>(coiled lead)</i>	30.50
air or gas probe  Ø4.5 x 130 mm	This stainless steel, fast response air or gas probe is ideal for measuring air temperature in chill cabinets, fridges, freezers, offices, storage areas and similar. <ul style="list-style-type: none"> • response time less than 0.5 of a second • probe temperature range -75 to 250 °C 	123-300	28.50
		323-300 <i>(coiled lead)</i>	29.50
ribbon surface probe  Ø15 x 130 mm	This precision, ribbon surface probe utilises flat ribbon technology that ensures a fast, accurate response with minimal heat loss. A right-angled version is also available. <ul style="list-style-type: none"> • response time less than 0.5 of a second • probe temperature range -75 to 250 °C 	123-030	39.00
		123-032 <i>(right-angled)</i>	43.50
ribbon surface probe  Ø8 x 130 mm	This precision, ribbon surface probe utilises flat ribbon technology that ensures a fast, accurate response with minimal heat loss. A right-angled version is also available. <ul style="list-style-type: none"> • response time less than 0.5 of a second • probe temperature range -75 to 250 °C 	123-044	30.50
		123-052 <i>(right-angled)</i>	33.00
waterproof surface probe  Ø8 x 130 mm	This waterproof, ribbon surface probe incorporates a moulded mini plug and utilises flat ribbon technology to ensure a fast, accurate response with minimal heat loss. <ul style="list-style-type: none"> • response time less than 0.5 of a second • probe temperature range -75 to 250 °C 	123-046	35.50
		323-046 <i>(coiled lead)</i>	36.50
surface probe  Ø6 x 130 mm	This surface probe incorporates a spring-loaded copper disc sensing tip. The probe is ideal for a variety of surface temperature measurements. <ul style="list-style-type: none"> • response time less than 2 seconds • probe temperature range -100 to 600 °C 	123-000	31.50
heavy duty surface probe  Ø12 x 130 mm	This high temperature surface probe is ideal for measuring the temperature of griddles, hotplates etc. A right-angled version is also available. <ul style="list-style-type: none"> • response time less than 1 second • probe temperature range -100 to 1000 °C 	123-020	33.50
		123-028 <i>(right-angled)</i>	42.50
penetration probe  Ø3.3 x 100 mm	This small handled, stainless steel penetration probe is strong, versatile and ideal for measuring liquids and semi-solids. A fast response version with a reduced tip is also available. <ul style="list-style-type: none"> • response time less than 3 seconds • probe temperature range -75 to 250 °C 	123-162	26.00
		123-158 <i>(reduced tip)</i>	28.00

for type T thermocouple probes, replace the third digit (3) of the order code with the number 7

Waterproof Temperature Probes





heavy duty type K thermocouple

		order code	£ each
penetration probe  Ø3.3 x 130 mm	This stainless steel, waterproof penetration probe is strong, versatile and incorporates a heavy duty handle with a colour-coded end cap. Suitable for liquids and semi-solids. <ul style="list-style-type: none"> • response time less than 3 seconds • probe temperature range -75 to 250 °C 	● 143-161	31.00
		● 143-162	31.00
		● 143-164	31.00
		● 143-165	31.00
		○ 143-166	31.00
		● 143-167	31.00
		reduced tip probe  Ø6.35 x 300 mm	This extended, reduced tip, waterproof, stainless steel penetration probe incorporates a reduced tip and heavy duty ribbed handle, ideal for heavy duty applications including food processing, asphalt and other similar materials. <ul style="list-style-type: none"> • response time less than 10 seconds • probe temperature range -75 to 250 °C
bell surface probes  Ø19 x 130 mm	These fast response, waterproof surface probes utilise a bell-shaped housing with a thin, flat, stainless steel measuring disc that ensures a fast, accurate response. Ideal for measuring a variety of surface temperatures. <ul style="list-style-type: none"> • response time less than 5 seconds • probe temperature range -75 to 200 °C 	143-080 <i>(straight)</i>	40.00
		143-084 <i>(45° angle)</i>	41.00
		143-086 <i>(90° angle)</i>	41.00

the above thermocouple probes are supplied with a moulded thermocouple connector.

Interchangeable Probe Handle

& plug-mounted type K thermocouple probes

		order code	£ each
interchangeable probe handle  Ø25 x 151 mm	This probe handle incorporates a miniature thermocouple socket, to be used in conjunction with our range of plug-mounted probes. Supplied with a one metre coiled PU lead and miniature plug.	323-950	20.00
penetration probe  Ø3.3 x 120 mm	This stainless steel, penetration probe is strong, versatile and ideal for liquids or semi-solids. <ul style="list-style-type: none"> • response time less than three seconds • probe temperature range -75 to 250 °C 	133-161	15.00
air or gas probe  Ø3.3 x 120 mm	This probe has a perforated stainless steel tip for fast response. Ideal for chill cabinets, fridges, freezers and HVAC units. <ul style="list-style-type: none"> • response time less than one second • probe temperature range -75 to 250 °C 	133-301	14.50
surface probe  Ø8 x 120 mm	This stainless steel surface probe uses flat ribbon technology ensuring a fast, accurate response with minimal heat loss. A right-angled version is also available. <ul style="list-style-type: none"> • response time less than one second • probe temperature range -75 to 250 °C 	133-045	20.00
		133-046 <i>(right-angled)</i>	21.50



Measurement and data acquisition solutions

Contact Details:

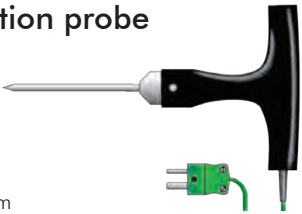
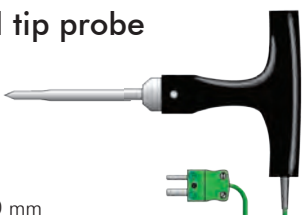
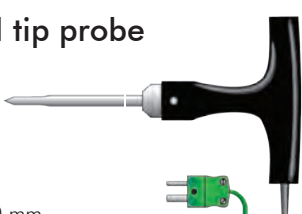
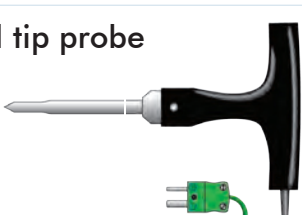


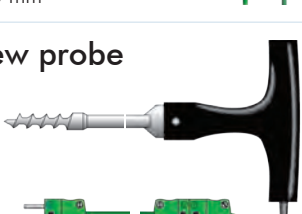
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 Mid Craigie Trading Estate, Mid Craigie Road,
 Dundee, DD4 7RH, UK

Heavy Duty Temperature Probes









type K thermocouple

	order code	£ each
<p>penetration probe</p>  <p>Ø4 x 100 mm</p>	133-124	35.50
<p>reduced tip probe</p>  <p>Ø6.35 x 100 mm</p>	133-126	35.50
<p>reduced tip probe</p>  <p>Ø6.35 x 300 mm</p>	133-120	36.50
<p>reduced tip probe</p>  <p>Ø8 x 500 mm</p>	133-130	41.00
<p>reduced tip probe</p>  <p>Ø9.5 x 1000 or 1400 mm</p>	133-136 (1000 mm) 133-135 (1400 mm)	61.00 71.00
<p>reduced tip probe</p>  <p>Ø9.5 x 2000 mm</p>	133-133	81.00
<p>corkscrew probe</p>  <p>Ø8 x 100 mm</p>	133-175	58.00

Please note: for hand held type T thermocouple probes, replace the third digit (3) of the order code with the number 7

Fast Response Temperature Probes




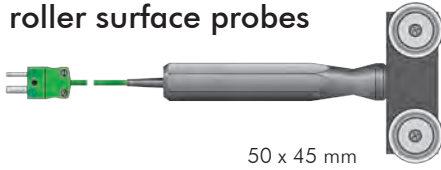
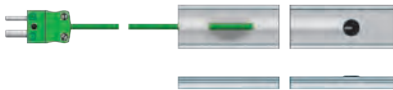
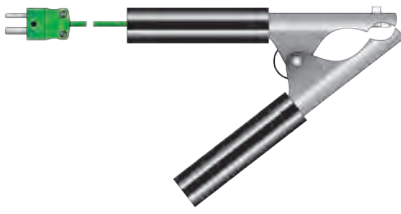
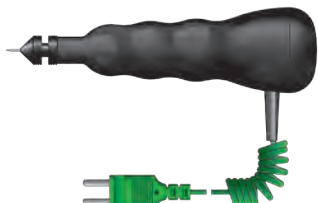
exposed junction wire type K thermocouple

		order code	£ each
PTFE wire probe  Ø1.5 x 1000 or 2000 mm	This PTFE insulated, exposed junction wire probe is suitable for measuring the air temperature in fridges, freezers, ovens etc. <ul style="list-style-type: none"> • response time less than 0.5 of a second • probe temperature range -75 to 250 °C 	133-362 (1000 mm)	8.50
		133-363 (2000 mm)	9.50
heavy duty PTFE wire probe  Ø2.4 x 1000 or 2000 mm	This heavy duty, PTFE insulated wire probe is ideal for measuring the air temperature in fridges, freezers, ovens etc. <ul style="list-style-type: none"> • response time less than 0.5 of a second • probe temperature range -75 to 250 °C 	133-372 (1000 mm)	12.00
		133-373 (2000 mm)	14.00
fibreglass wire probe  Ø1.5 x 1000 or 2000 mm	This fibreglass, exposed junction wire probe is ideal for measuring the air temperature of ovens, hot cupboards and similar appliances. <ul style="list-style-type: none"> • response time less than 0.5 of a second • probe temperature range -60 to 350 °C 	133-382 (1000 mm)	9.50
		133-383 (2000 mm)	10.50
high temperature wire probe  Ø3 x 1000 or 2000 mm	This high temperature, fibreglass wire probe is insulated with a stainless steel braid and is ideal for ovens, hot cupboards and similar appliances. Supplied with a one or two metre stainless steel braided lead. <ul style="list-style-type: none"> • response time less than 0.5 of a second • probe temperature range -60 to 600 °C 	133-387 (1000 mm)	15.50
		133-389 (2000 mm)	19.00
attachment pads  12 x 18 mm	These easy to use attachment pads are recommended for attaching small diameter wire thermocouples to surfaces. Supplied in packs of 25. <ul style="list-style-type: none"> • for use over the range of -50 to 200 °C 	600-485	5.00
probe extension lead - straight  1000 or 2000 mm	This probe extension lead enables the user to connect to any ETI thermocouple type K probe, extending reach up to an additional 1000 or 2000 mm. Supplied with a PVC straight lead with MPK to MSK.	627-732 (1000 mm)	7.50
		627-733 (2000 mm)	8.50
probe extension lead - coiled  1000 or 2000 mm	This probe extension lead enables the user to connect to any ETI thermocouple type K probe, extending reach up to an additional 1000 or 2000 mm. Supplied with a PU coiled lead with MPK to MSK.	627-740 (1000 mm)	9.50
		627-741 (2000 mm)	10.50
miniature plug or socket  16 x 19 mm 16 x 25 mm	Miniature thermocouple plugs and sockets are a must for accurate readings when joining probe cables. The flat pins (plug) and socket are manufactured from compatible thermocouple material and can accommodate wires up to Ø0.5 mm.	625-217 (plug)	2.25
		421-501 (socket)	2.25

Please note: for hand held type T thermocouple wire probes, replace the third digit (3) of the order code with the number 7

Special Temperature Probes

type K thermocouple

		order code	£ each
miniature needle probe  Ø1.4 reducing to Ø1 mm tip x 50 mm	This miniature, stainless steel needle probe is supplied with a one or two metre PTFE lead. Ideal for measuring small semi-solid items and sous vide cooking. <ul style="list-style-type: none"> • response time less than 1 second • probe temperature range -75 to 250 °C 	133-180 <i>(1m lead)</i>	29.50
		133-182 <i>(2m lead)</i>	31.50
fast response meat probe  Ø1 mm tip x 90 mm	This fast response, meat penetration probe is specially designed for measuring burger patties etc. Supplied with a one metre coiled lead. <ul style="list-style-type: none"> • response time less than 1 second • probe temperature range -75 to 250 °C 	133-150	28.00
magnet surface probe  Ø24 x 28 mm	This magnet probe is supplied with a 500 mm PTFE lead. Ideal for monitoring the surface temperature of ferrous metals, e.g. radiators or hotplates. <ul style="list-style-type: none"> • response time less than 20 seconds • probe temperature range -20 to 80 °C 	133-017	32.50
roller surface probes  50 x 45 mm	These roller surface probes have either s/steel or PTFE wheels and are designed for measuring moving surfaces. Max. speed 100 m/min. <ul style="list-style-type: none"> • response time less than 0.5 of a second • probe temperature range -75 to 250 °C 	123-038 <i>(s/steel)</i>	91.00
		123-036 <i>(PTFE)</i>	81.00
velcro pipe probe  20 x 500 mm	This 500 mm wrap-around velcro pipe probe is suitable for medium and large pipe temperature measurement in the HVAC industry. Supplied with a two metre lead. <ul style="list-style-type: none"> • response time less than 20 seconds • probe temperature range -10 to 100 °C 	133-080	25.00
pipe clamp probe 	This robust, pipe clamp probe is suitable for measuring the surface temperature of pipes in refrigeration, heating and ventilating systems etc. Simple clamp-on design for simplicity of use, suitable for pipes from Ø6 to Ø30 mm. <ul style="list-style-type: none"> • response time less than 2 seconds • probe temperature range -10 to 100 °C 	133-040	20.00
adjustable tyre probe  Ø1 x 10 mm	This fast response probe has an adjustable depth stop (1 to 10 mm) which the user can manually set. This probe has been specifically designed for measuring tyre temperatures, supplied with a one metre coiled lead and moulded thermocouple connector. <ul style="list-style-type: none"> • response time less than 0.5 of a second • probe temperature range -75 to 250 °C 	343-100	38.00

Please note: for hand held type T thermocouple probes, replace the third digit (3) of the order code with the number 7

Whilst every effort has been made to ensure the accuracy of this specification, we cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.