

## Temperature Probes

## thermocouple, PT100/RTD & NTC thermistor

Thermometers are only part of the system; of equal importance is the design of the temperature probes used to physically measure the item. ETI manufacture an extensive range of probes to compliment our range of instrumentation.

### 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

Where appropriate, each probe is supplied with a hexagonal, small rounded, ribbed heavy duty or T-shaped handle. To reduce bacterial growth, probe handles contain 'Biomaster' anti-bacterial additive.



#### Hexagonal

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



#### T-shaped

manufactured from polypropylene and available in black or white. Maximum temperature is 105 °C.



#### **Small Rounded**

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. (available with colour-coded caps)

### probe accuracy specifications

#### Type K Thermocouple Probes/Sensors

All type K thermocouple probes/sensors are manufactured from Class 1 type K thermocouple wire as detailed in the British Standard BS EN 60584-1:2013, and meet the following accuracy specification:

• ±1.5 °C between -40 & 375 °C • ±0.4 % between 375 & 1000 °C

### High Accuracy Type K Thermocouple Probes/Sensors (indicated in the catalogue with the Assured icon)

ETI high accuracy type K probes are manufactured from Class 1 type K thermocouple wire which is chosen for improved accuracy and performance and meet the following accuracy specification:

• ±0.5 °C between 0 & 100 °C

#### Type T Thermocouple Probes/Sensors

All type T thermocouple probes/sensors are manufactured from Class 1 type T thermocouple wire as detailed in the British Standard BS EN 60584-1:2013, and meet the following accuracy specification:

• ±0.5 °C between -40 & 125 °C

• ±0.4 % between 125 & 400 °C

#### High Accuracy Type T Thermocouple Probes/Sensors (indicated in the catalogue with the Allie icon)

ETI high accuracy type T probes are manufactured from Class 1 type T thermocouple wire which is chosen for improved accuracy and performance and meet the following accuracy specification:

•  $\pm 0.2$  °C between -20 & 70 °C

#### NTC Thermistor Probes/Sensors

The tolerance specification for all ETI manufactured thermistor probes is as follows:

- $\pm 0.4$  °C between -20 & 100 °C
- ±0.2 °C between 0 & 70 °C
- $\pm 0.3$  °C between -10 & 0 °C
- ±0.4 °C between 70 & 100 °C

#### PT100/RTD Probes/Sensors

All PT100/RTD probes/sensors are manufactured from Class A PT100/RTD 100  $\Omega$  (ohmns) detectors as detailed in the IEC 60751 (2008) standard, and meet the following accuracy specification:

• ±0.15 °C ±0.2 % between -200 & 600 °C



# Hand Held Temperature Probes type K or T thermocouple

This stainless steel penetration probe is strong, versatile and ideal for measuring liquids and semi-solids.  • response time less than 3 seconds • probe temperature range -75 to 250 °C  This extended, stainless steel penetration probe is strong, versatile and ideal for measuring liquids and semi-solids.  • response time less than 3 seconds  • probe is strong, versatile and ideal for measuring liquids and semi-solids.  • response time less than 3 seconds  • probe temperature range -75 to 250 °C  This reduced tip (Ø1.8 x 25 mm), fast response, stainless steel penetration probe is ideal for liquids or semi-solids i.e. soft rubber and other	
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probe is strong, versatile and ideal for measuring liquids and semi-solids.  • response time less than 3 seconds • probe temperature range -75 to 250 °C  This reduced tip (Ø1.8 x 25 mm), fast response, stainless steel penetration probe is ideal for liquids or semi-solids i.e. soft rubber and other  323-168 (coiled lead) 323-159	
measuring liquids and semi-solids.  • response time less than 3 seconds • probe temperature range -75 to 250 °C  This reduced tip (Ø1.8 x 25 mm), fast response, stainless steel penetration probe is ideal for liquids or semi-solids i.e. soft rubber and other  323-168 (coiled lead 323-168 (soiled lead 323-159	
fast response probe  This reduced tip (Ø1.8 x 25 mm), fast response, stainless steel penetration probe is ideal for liquids or semi-solids i.e. soft rubber and other  123-159	
stainless steel penetration probe is ideal for liquids or semi-solids i.e. soft rubber and other	
liquids or semi-solids i.e. soft rubber and other 323-159	
similar materials. (coiled lead	1
• response time less than 2 seconds • probe temperature range -75 to 250 °C	
needle penetration probe  This fast response, stainless steel needle penetration probe is ideal for liquids or	
semi-solids i.e. soft rubber or plastic.  • response time less than 2 seconds	
A HIGH A NO Mm Ø1.8 x 130 mm Probe temperature range -75 to 250 °C	
oven probe  This oven probe has a stainless steel handle and a two metre PTFE high temperature lead.	
An oven probe without a handle is available.  • response time less than 4 seconds	
Ø3.3 x 130 mm • probe temperature range -75 to 250 °C	
rigid between pack probe  This rigid, stainless steel between pack probe is strong and versatile, designed specifically to magnitude between packets or hoves of produce 323-060	
• response time less than 3 seconds	
✓ ACHICH ACHICH Ø4.5 x 130 mm • probe temperature range -75 to 250 °C	
high temperature probe  This flexible, mineral insulated (MI) probe can be bent to any shape without affecting its performance. Ideal for measuring high  323-204	
temperatures i.e. fryers or furnaces. (coiled lead	
<ul> <li>response time less than 2 seconds</li> <li>probe temperature range -200 to 1100 °C</li> </ul>	
high temperature probe  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.  or response time less than 2 seconds or probe temperature range -200 to 1100 °C	
high temperature probe  The above flexible, mineral insulated (MI) 123-213	
probe is also available with an extended 300 mm probe.	
Ø3 x 300 mm	



# Hand Held Temperature Probes type K or T thermocouple

		order code
Binder probe	This rounded tip, stainless steel probe is designed for inserting into Binder self-sealing glands to measure the temperature of vessels or radiators.  • response time less than 3 seconds • probe temperature range -75 to 250 °C	123-240 323-240 (coiled lead)
air or gas probe  ALIGH ACHIGH  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.  • response time less than 0.5 of a second • probe temperature range -75 to 250 °C	123-300 323-300 (coiled lead)
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.  • response time less than 0.5 of a second • probe temperature range -75 to 250 °C	123-030 123-032 (right-angled)
ribbon surface probe	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.  • response time less than 0.5 of a second • probe temperature range -75 to 250 °C	123-044 123-052 (right-angled)
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.  • response time less than 0.5 of a second  • probe temperature range -75 to 250 °C	123-046 323-046 (coiled lead)
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.  • response time less than 2 seconds  • probe temperature range -100 to 600 °C	123-000 323-000 (coiled lead)
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.  • response time less than 1 second  • probe temperature range -100 to 1000 °C	123-020* 123-028* (right-angled)
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.  • response time less than 3 seconds  • probe temperature range -75 to 250 °C	123-162 123-158 (reduced tip)

Please note: for hand held type T thermocouple probes, replace the third digit (3) of the order code with the number 7 \*order codes 123-020 & 123-028 are not available in type T thermocouple



## Waterproof Temperature Probes

heavy duty type K thermocouple

		order code
penetration probe  Atlich  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.  • response time less than 3 seconds • probe temperature range -75 to 250 °C	143-161 143-162 143-164 143-165 143-166 143-167
reduced tip probe	This extended, waterproof, stainless steel probe incorporates a reduced tip (Ø4.5 x 25 mm) and heavy duty ribbed handle, ideal for heavy duty applications including food processing, asphalt and other similar materials.  • response time less than 10 seconds  • probe temperature range -75 to 250 °C	143-120
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.  • response time less than 5 seconds • probe temperature range -75 to 200 °C	143-080 (straight) 143-084 (45° angle) 143-086 (90° angle)

Please note: the above type T thermocouple probes are supplied with a moulded thermocouple connector and are waterproof to IP67 when connected to an instrument

# Interchangeable Probe Handle & plug-mounted type K thermocouple probes

		order code	
interchangeable probe handle	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	
penetration probe  Action  Ø3.3 x 90 mm	This stainless steel, penetration probe is strong, versatile and ideal for liquids or semi-solids.  • response time less than three seconds  • probe temperature range -75 to 250 °C	133-161	
air or gas probe	This probe has a perforated stainless steel tip for fast response. Ideal for chill cabinets, fridges, freezers and HVAC units.  • response time less than one second • probe temperature range -75 to 250 °C	133-301	
surface probe	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.  • response time less than one second • probe temperature range -75 to 250 °C	133-045 133-046 (right-angled)	



# Heavy Duty Temperature Probes type K or T thermocouple

		order code	
penetration probe  A HIGH  Ø4 x 100 mm	This robust, stainless steel penetration probe incorporates a T-shaped polypropylene handle and is ideal for a variety of heavy duty applications including food processing and other similar industries.  • response time less than 4 seconds • probe temperature range -75 to 250 °C	133-124	
reduced tip probe  Action  ©6.35 x 100 mm	This robust, stainless steel, reinforced probe incorporates a T-shaped polypropylene handle and a reduced sensing tip (Ø4.5 x 25 mm) for faster response. Ideal for a variety of heavy duty applications including food processing etc.  • response time less than 9 seconds  • probe temperature range -75 to 250 °C	133-126	
reduced tip probe  Action  ©6.35 x 300 mm	This extended robust, stainless steel, reinforced probe incorporates a T-shaped polypropylene handle and a reduced sensing tip (4.5 x 25mm) for faster response. Ideal for a variety of heavy duty applications including food processing etc.  • response time less than 9 seconds  • probe temperature range -75 to 250 °C	133-120	
reduced tip probe  ⊘8 x 500 mm	This extended, stainless steel, reinforced probe incorporates a T-shaped polypropylene handle and a reduced sensing tip (⊘6.35 x 25 mm) for faster response. Ideal for a variety of heavy duty applications including food processing etc.  • response time less than 10 seconds  • probe temperature range -75 to 250 °C	133-130	
reduced tip probe	This Ø9.5 mm stainless steel, reinforced probe incorporates a T-shaped polypropylene handle and a reduced sensing tip (Ø6.35 x 25 mm) for faster response. Ideal for applications where a longer probe is required, i.e. grain silos.  • response time less than 17 seconds • probe temperature range -75 to 250 °C	133-136 (1000 mm) 133-135 (1400 mm)	
reduced tip probe  Ø9.5 x 2000 mm	This extended stainless steel, reinforced probe incorporates a T-shaped polypropylene handle and a reduced sensing tip (⊘6.35 x 25 mm) for faster response. Ideal for applications where a very long probe is required, i.e. grain silos.  • response time less than 17 seconds • probe temperature range -75 to 250 °C	133-133	
corkscrew probe	This stainless steel probe incorporates a heavy duty T-shaped polypropylene handle and a corkscrew design sensing tip. Ideal for industrial and food processing applications. Supplied with a one metre PU detachable lead.  • response time less than 9 seconds  • probe temperature range -75 to 250 °C	133-175	



# Fast Response Temperature Probes exposed junction wire type K or T thermocouple

		order code
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. Extended probe lengths over two metres are available upon request.  • response time less than 0.5 of a second • probe temperature range -75 to 250 °C	133-362 (1000 mm) 133-363 (2000 mm)
heavy duty PTFE wire probe  ©2.4 x 1000 or 2000 mm	This heavy duty, PTFE insulated wire probe is ideal for measuring the air temperature in fridges, freezers, ovens etc. Extended probe lengths over two metres are available upon request.  • response time less than 0.5 of a second • probe temperature range -75 to 250 °C	133-372 (1000 mm) 133-373 (2000 mm)
fibreglass wire probe  One of the probe  One of the probe	This fibreglass, exposed junction wire probe is ideal for measuring the air temperature of ovens, hot cupboards and similar appliances. Extended probe lengths over two metres are available upon request.  • response time less than 0.5 of a second • probe temperature range -60 to 350 °C	133-382 (1000 mm) 133-383 (2000 mm)
high temperature wire probe  3 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.  • response time less than 0.5 of a second  • probe temperature range -60 to 600 °C	133-387 (1000 mm) 133-389 (2000 mm)
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.  • for use over the range of -50 to 200 °C	600-485
probe extension lead - straight	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) 627-733 (2000 mm)
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) 627-741 (2000 mm)
miniature plug or socket  MPK  MSK  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 $\emptyset$ 0.5 mm.	625-217 (plug) 421-501 (socket)



# Special Temperature Probes type K or T thermocouple

		order code	
miniature needle probe  Augustian March 1.4 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.  • response time less than 1 second  • probe temperature range -75 to 250 °C	133-180 (1m lead) 133-182 (2m lead)	
fast response meat probe  Alle Action  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.  • response time less than 1 second  • probe temperature range -75 to 250 °C	133-150	
magnet surface probe	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.  • response time less than 20 seconds • probe temperature range -20 to 80 °C	133-017	
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.  • response time less than 0.5 of a second  • probe temperature range -75 to 250 °C	123-038 (s/steel) 123-036 (PTFE)	
velcro pipe probe  20 x 500 mm	This 500 mm wrap-around velcro pipe probe is suitable for both medium and large pipe temperature measurement in the HVAC industry. Supplied with a two metre lead.  • response time less than 20 seconds  • probe temperature range -10 to 100 °C	133-080	
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.  • response time less than 2 seconds  • probe temperature range -10 to 100 °C	133-040	
adjustable tyre probe  Olivination  Olivinat	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.  • response time less than 0.5 of a second  • probe temperature range -75 to 250 °C	343-100	



## Hand Held Temperature Probes

type T thermocouple probes with lumberg connectors

		order code
penetration probe  Ø3.3 x 130 mm	This stainless steel penetration probe is strong, versatile and incorporates a heavy duty, ribbed, polypropylene handle with a white end cap. Ideal for measuring liquids, semi-solids and granular materials.  • response time less than 3 seconds  • probe temperature range -75 to 250 °C	177-166
fast response probe  Activity  ©2.6 x 130 mm	This stainless steel, fast response, needle penetration probe incorporates a heavy duty ribbed, polypropylene handle. Suitable for liquids and soft semi-solid materials including fish, fruit and other soft or delicate materials.  • response time less than 1 second  • probe temperature range -75 to 250 °C	177-100
rigid between pack probe	This rigid, stainless steel, between pack probe is strong, versatile and incorporates a heavy duty ribbed, polypropylene handle. The probe has been specifically designed to measure between packs or boxes of produce.  • response time less than 3 seconds • probe temperature range -75 to 250 °C	177-060
air or gas wire probe	This fast response, air or gas wire probe is ideal for measuring air temperatures in fridges, freezers, chill cabinets and similar. Supplied complete with a one metre PTFE lead.  • response time less than 0.5 seconds • probe temperature range -75 to 250 °C	177-372

Please note: the above type T thermocouple probes are suitable for use with the Therma 22 & Therma 22 Plus

# Waterproof Temperature Probes

type T thermocouple probes with lumberg connectors

		order code	
penetration probe  Activities  ©3.3 x 130 mm	This waterproof, stainless steel, penetration probe is strong, versatile and incorporates a heavy duty, ribbed, polypropylene handle with a white end cap. Ideal for measuring liquids, semi-solids and granular materials.  • response time less than 3 seconds • probe temperature range -75 to 250 °C	177-266	
penetration probe  Ø3.3 x 100 mm	This waterproof, stainless steel, plug-mounted probe is strong, versatile and ideal for measuring liquids, semi-solids and granular materials.  • response time less than 3 seconds  • probe temperature range -75 to 250 °C	177-200	

Please note: the above type T thermocouple probes (177-266 & 177-200) are suitable for use with the Therma 22 Plus and are waterproof to IP67 when connected to an instrument



# PT100 Class A Temperature Probes for use with the Precision 0.1 °C thermometer

		order code	
penetration probe  Ø3.3 x 130 mm	This stainless steel penetration probe is strong, versatile and ideal for measuring liquids and semi-solids accurately in a variety of applications.  • response time less than 4 seconds  • probe temperature range -100 to 200 °C	160-160	
air or gas probe	This stainless steel air or gas probe is ideal for measuring air or gas temperatures accurately in rooms and ducts in HVAC and industrial applications.  • response time less than 4 seconds • probe temperature range -100 to 200 °C	160-300	
liquid probe  Ø3.3 x 130 mm	This liquid probe features a rigid, stainless steel stem with a flat tip. The probe is suitable for accurate temperature measurement in a wide variety of laboratory applications.  • response time less than 4 seconds  • probe temperature range -100 to 200 °C	160-220	
Ø3.7 x 30 mm with 1000 mm FEP lead	This FEP insulated air or gas wire probe is ideal for measuring air or gas temperatures accurately in a variety of HVAC and industrial applications.  • response time less than 4 seconds  • probe temperature range -100 to 200 °C	160-372	

# PT100 1/10 DIN Temperature Probes

for use with the Precision Plus 0.01 °C thermometer

		order code	
liquid probe	This hand held liquid probe features a rigid, stainless steel stem with a flat tip. Suitable for high accuracy temperature measurement in a wide variety of laboratory applications.  • response time less than 4 seconds  • probe temperature range -200 to 200 °C	160-222	
liquid probe  Ø4.8 x 250 mm with 2000 mm PTFE lead	This liquid probe features a rigid, stainless steel stem with a flat tip. Suitable for high accuracy temperature measurement in a wide variety of laboratory applications.  • response time less than 10 seconds  • probe temperature range -200 to 200 °C	160-446	

accuracy of the above PT100 1/10 DIN probes is  $\pm 0.03$  °C  $\pm 0.01$  % of reading between -100 °C to 200 °C otherwise  $\pm 0.02$  % of reading



# NTC Thermistor Temperature Probes for use with ThermaData® loggers

		order code	
general purpose probe	This stainless steel penetration probe is suitable for a wide range of remote monitoring applications. Supplied with a one, two or three metre PUR/PVC lead and three-pin Binder connector.  • response time less than 2 seconds • probe temperature range -40 to 125 °C	172-011 (1000 mm) 172-012 (2000 mm) 172-013 (3000 mm)	
general purpose probe	This extended, stainless steel penetration probe is suitable for a wide variety of remote monitoring applications. Supplied with a one metre PUR/PVC lead and three-pin Binder connector.  • response time less than 2 seconds  • probe temperature range -40 to 125 °C	172-168	
liquid probe	This liquid probe features a rigid, stainless steel stem with a flat tip. Ideal for a wide variety of pharmaceutical applications. Supplied with a one, two or three metre PUR/PVC lead and three-pin Binder connector.  • response time less than 2 seconds • probe temperature range -40 to 125 °C	172-382 (1000 mm) 172-383 (2000 mm) 172-384 (3000 mm)	
air or gas probe	This stainless steel, air or gas probe is ideal for measuring air temperature in chill cabinets, fridges/freezers, offices, storage areas etc. Supplied with a one, two or three metre PUR/PVC lead and three-pin Binder connector.  • response time less than 1 second  • probe temperature range -40 to 125 °C	172-372 (1000 mm) 172-373 (2000 mm) 172-374 (3000 mm)	
food simulant probe  9 x 100 x 100 mm	This polypropylene probe is designed for use in food storage, chill cabinets and refrigeration where simulation of food temperature is required. The probe incorporates a one metre PUR/PVC lead and three-pin Binder connector.  • probe temperature range 0 to 100 °C	172-350	
logger extension lead  150 mm PVC lead	This logger extension lead enables the user to connect any ETI NTC thermistor probe, fitted with a Lumberg connector to a ThermaData logger. The extension lead can be extended up to a maximum of two metres without adversely affecting the readings or accuracy.  • maximum temperature 80 °C	172-015	

Please note: the maximum temperatures quoted are probe tip temperatures. The maximum PUR/PVC lead temperature is 80 °C.



# Hand Held Temperature Probes NTC thermistor probes with lumberg connectors

		order code
penetration probe	This stainless steel penetration probe is strong, versatile and incorporates a heavy duty, ribbed, polypropylene handle with a colour-coded end cap. Ideal for measuring liquids, semi-solids and granular materials.  • response time less than 2 seconds • probe temperature range -40 to 150 °C	174-161 174-162 174-164 174-165 174-166 174-167
penetration probe	This extended, stainless steel penetration probe is strong, versatile and incorporates a heavy duty, ribbed, polypropylene handle with a white end cap. Ideal for measuring liquids, semi-solids and granular materials.  • response time less than 2 seconds • probe temperature range -40 to 150 °C	174-168
fast response probe	This stainless steel, fast response, needle penetration probe incorporates a heavy duty ribbed, polypropylene handle. The probe is suitable for liquids and soft semi-solids including fish, fruit and other delicate materials.  • response time less than 1 second  • probe temperature range -40 to 150 °C	174-100
rigid between pack probe	This rigid, stainless steel between pack probe is strong, versatile and incorporates a heavy duty ribbed, polypropylene handle. The probe has been specifically designed to measure between packs or boxes of produce.  • response time less than 3 seconds  • probe temperature range -40 to 150 °C	174-060
air or gas probe	This stainless steel, fast response air or gas probe incorporates a heavy duty ribbed, polypropylene handle. The probe is ideal for measuring air temperature in refrigeration units, storage areas and other similar applications.  • response time less than 2 seconds  • probe temperature range -40 to 150 °C	174-300
penetration probe	This robust, stainless steel penetration probe incorporates a heavy duty, T-shaped polypropylene handle. The strong, durable probe is suitable for a wide variety of heavy duty, general purpose industrial or food processing applications.  • response time less than 5 seconds  • probe temperature range -40 to 150 °C	170-169
reduced tip probe	This extended robust Ø9.5 mm stainless steel, reinforced probe incorporates a heavy duty, T-shaped polypropylene handle and a reduced sensing tip (Ø6.35 x 25 mm) for faster response. Ideal for a wide variety of heavy duty, general purpose industrial or food processing applications.  • response time less than 18 seconds  • probe temperature range -40 to 150 °C	170-136

Please note: the above NTC thermistor probes are suitable for use with the Therma 20, 22, 20 Plus, 22 Plus & 8100 Plus



# Hand Held Temperature Probes

NTC thermistor probes with lumberg connectors

		order code
corkscrew probe	This frozen food probe incorporates a heavy duty T-shaped, polypropylene handle and a corkscrew design sensing tip. Ideal for measuring deep frozen foods or other frozen materials. Supplied with a one metre PVC detachable lead.  • response time less than 6 seconds • probe temperature range -40 to 150 °C	170-175
food simulant probe  9 x 100 x 100 mm	This polypropylene probe is designed for use in food storage, chill cabinets and refrigeration where simulation of food temperature is required. The probe incorporates a one metre PUR/PVC lead and compatible Lumberg connector.  • probe temperature range 0 to 100 °C	170-350
air or gas wire probe  Ø3.7 x 30 mm with 1000 mm FEP lead	This fast response, air or gas wire probe is ideal for measuring air temperature in chill cabinets, fridges, freezers, offices, storage areas and similar. Supplied with a one metre FEP lead.  • response time less than 1 second  • probe temperature range -40 to 150 °C	170-372
foil between pack probe  40 x 50 mm with 1000 mm FEP lead	This easy to use, flexible, fast response, foil between pack probe has been designed to measure between packs or boxes of produce in a variety of applications.  • response time less than 3 seconds • probe temperature range 0 to 100 °C	170-090

Please note: the above NTC thermistor probes are suitable for use with the Therma 20, 22, 20 Plus, 22 Plus & 8100 Plus

# Waterproof Temperature Probes

NTC thermistor probes with lumberg connectors

		order code	
penetration probe	This waterproof, stainless steel penetration probe is versatile, strong and incorporates a heavy duty, ribbed, polypropylene handle with a white end cap. Ideal for measuring liquids, semi-solids and granular materials.  • response time less than 3 seconds • probe temperature range -40 to 150 °C	174-266	
penetration probe  Ø3.3 x 100 mm	This waterproof, stainless steel plug-mounted penetration probe is versatile and strong. Ideal for measuring liquids, semi-solids and granular materials in a wide variety of applications.  • response time less than 3 seconds  • probe temperature range -40 to 150 °C	172-000	

Please note: the above NTC thermistor probes (174-266 & 172-000) are suitable for use with the Therma 20 Plus, Therma 22 Plus & 8100 Plus and are waterproof to IP67 when connected to an instrument

