

TECHNICAL DATA SHEET

Probes

Designed for accuracy and durability

Developed from extensive research, destructive testing and analysis of similar products, these probes are designed to meet today's demanding standards.

Built to withstand considerable push, pull and twist forces, the probe has been especially designed to fit comfortably into the hand and features a unique "thumb-stop" for ease of use as well as protection against slipping. Furthermore, for penetration applications, the angle of the general purpose probe's point has been set to provide less resistance at the insertion point.

Our 2100 Series Probes are available with either straight or curly cables



Clean styling

The probe's handle parts are ultrasonically welded and sealed to IP67, so that it may be scrubbed clean without affecting the internal wiring. With sealed tip probes, the complete unit is protected to IP67. To prevent cross-contamination, we recommend that probes are cleaned with anti-bacterial wipes.

Colour coding on the handles

Our 2100 Series Probes are supplied complete with a selection of colour coded tangs in a range of colours. (Also supplied on request for other probes)

Special Probe Manufacture

Frequently, customers require probes manufactured for their specialist applications and Digitron can produce these special probes on request.



Probe Types

Sensor Type	Range
K	For type K thermometers, eg: 2000T, 3208is, TM Series
T	For type T thermometers eg: 2000T, 2100 Series
P	Pt 100 platinum resistance, for thermometers with TCM Connectors
Q	Pt 1000 platinum resistance, for use with T600i thermometers
H	Thermistor, for use with Digitron thermistor thermometers

Effective in prevention of cross contamination and promotion of hygiene in the work place, Digitron offers a selection of probe wipes ideal for cleansing and sanitising of all types of sensor probes.

- ✓ Use between and after use of probes
- ✓ Effective in prevention of bacteria spread
- ✓ Available in handy containers



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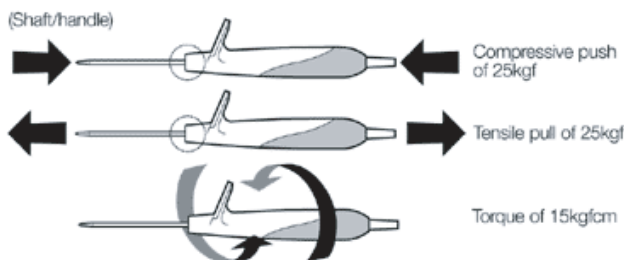
Probes

Probe Accuracy Guide

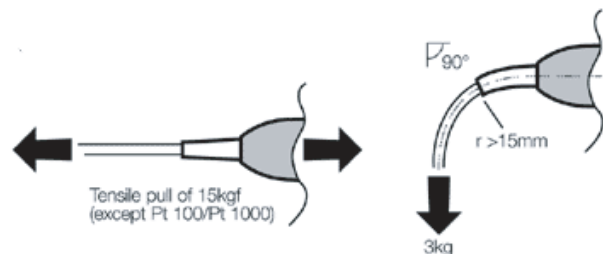
THERMOCOUPLES			
Type	Conductors	Temperature Range	Tolerances to BS4937 Class 1
K	Nickel Chromium/Nickel Aluminium (Ni-Cr/Ni-Al)	-200°C to +1250°C / -328°F to +2280°F	-40°C to +1000°C: $\pm 1.5^\circ\text{C}$ or $\pm 0.4\%$ whichever is the greater / -40°F to +1830°F $\pm 2.5^\circ\text{F}$ whichever is greater
T	Copper/Copper Nickel (Cu/Cu-Ni)	-200°C to +400°C / -328°F to +750°F	-40°C to +350°C: $\pm 0.5^\circ\text{C}$ or $\pm 0.4\%$ whichever is the greater / -40°F to +660°F $\pm 1.0^\circ\text{F}$ whichever is the greater Thermocouple Type T material is selected for $\pm 0.2^\circ\text{C}$ over the range -20°C to +70°C.
Thermistor Type		-40°C to +150°C	
Used for precision measurements using a semi-conductor sensor. Provides high accuracy over a narrow temperature range and good performance over long lead runs. Suitable for cold store and many			
Platinum Resistance		Temperature Range	Tolerances to BS1904 Grade A
Pt100 Platinum Resistance		-200°C to +800°C / -328°F to +1470°F	-200°C to +600°C: $\pm 0.15^\circ\text{C}$ $\pm 0.2\%$ / -328°F to +1110°F $\pm 0.3^\circ\text{F}$ $\pm 0.2\%$

Note: For probes and instruments we can supply system (instrument & sensor) calibration certificates to UKAS standard if required. Ask for details. For measurements below -40°C/-40°F, please contact Digitron or your local distributor about special manufactured probes.

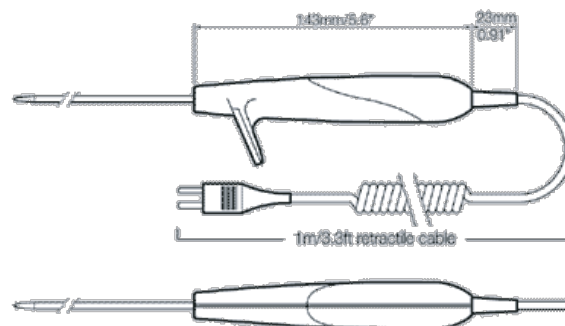
Probe Handle Strength



Probe Cable Strength

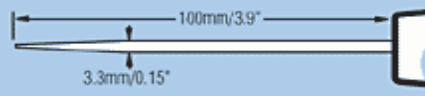


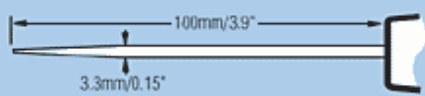
Probe Dimensions

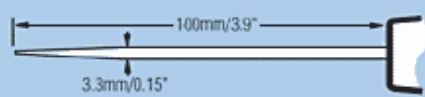


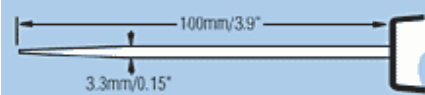
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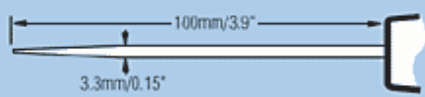
Digitron Probes

Code	Description and Application	Tip Dimension	
K0234D Connector Type 2 pin mini	GENERAL PURPOSE PROBE K type sensor. Strong, fast responding and suitable for a wide range of applications - liquids, semisolids, air and granular penetration. Can be used for general food penetration.		
	Time const.(secs)		Max. Tip Temp.
	0.6		1000°C/1832°F

Code	Description and Application	Tip Dimension	
T0234D Connector Type 2 pin mini	GENERAL PURPOSE PENETRATION T type sensor version of K0234		
	Time const.(secs)		Max. Tip Temp.
	0.6		250°C/482°F

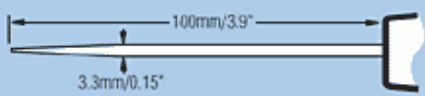
Code	Description and Application	Tip Dimension	
TO234LS Connector Type Lumberg	GENERAL PURPOSE PENETRATION With 'T' type sensor, straight cable, 0.7m long and Lumberg connector and set of coloured thumb tabs (2106T only)		
	Time const.(secs)		Max. Tip Temp.
	0.6		250°C/482°F

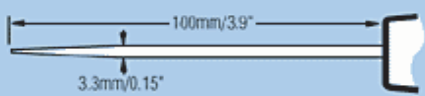
Code	Description and Application	Tip Dimension	
TO234LC Connector Type Lumberg	GENERAL PURPOSE PENETRATION With 'T' type sensor, curly cable and Lumberg connector – includes colour coded thumb tabs (2106T only)		
	Time const.(secs)		Max. Tip Temp.
	0.6		250°C/482°F

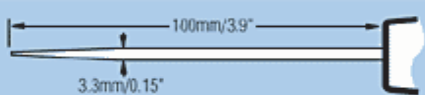
Code	Description and Application	Tip Dimension	
H0234D Connector Type Plug	GENERAL PURPOSE PROBE Thermistor sensor version of K0234, with a straight cable and dedicated connection to the 2046T.		
	Time const.(secs)		Max. Tip Temp.
	1.9		120°C/248°F

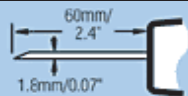
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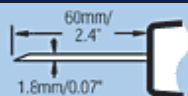
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Code	Description and Application	Tip Dimension	
P0234D Connector Type TCM Screw	GENERAL PURPOSE PROBE General Purpose Probe. Pt 100 sensor version of the K0234, ideal for laboratory use		
	Time const.(secs)		Max. Tip Temp.
	2		600°C/1110°F
	0.5	1000°C/1832°F	

Code	Description and Application	Tip Dimension	
H0234LS Connector Type Lumberg	GENERAL PURPOSE PENETRATION Thermistor version of K0234 with Lumberg connector and straight cable. Includes colour coded thumb tabs. (2146T only)		
	Time const.(secs)		Max. Tip Temp.
	1.9		120°C/248°F

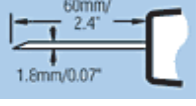
Code	Description and Application	Tip Dimension	
H0234LC Connector Type Lumberg	GENERAL PURPOSE PENETRATION Thermistor version of K0234 with Lumberg connector and curly cable. Includes colour coded thumb tabs. (2146T only)		
	Time const.(secs)		Max. Tip Temp.
	1.9		120°C/248°F

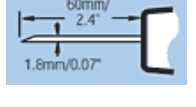
Code	Description and Application	Tip Dimension	
K0112D Connector Type 2 pin mini	NEEDLE PROBE K type sensor, for rapid temperature		
	Time const.(secs)		Max. Tip Temp.
	0.5		400°C/752°F

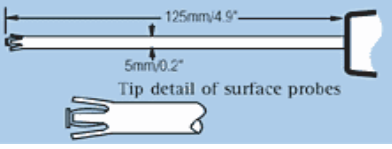
Code	Description and Application	Tip Dimension	
T0112D Connector Type 2 pin mini	NEEDLE PROBE T type sensor version of K0112.		
	Time const.(secs)		Max. Tip Temp.
	0.5		375°C/707°F

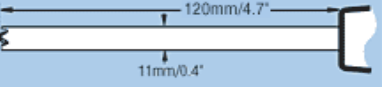
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Code	Description and Application	Tip Dimension
T0112LC	NEEDLE PROBE 'T' type sensor version of K0112 with Lumberg connector and curly cable. Includes colour coded thumb tabs (2146T only).	 60mm/2.4" 1.8mm/0.07"
Connector Type Lumberg		
	Time const.(secs) Max. Tip Temp.	
	0.5 375°C/707°F	

Code	Description and Application	Tip Dimension
T0112LS	NEEDLE PROBE 'T' type sensor version of K0112 with Lumberg connector with straight cable 0.7m long. Includes colour coded thumb tabs (2146T only).	 60mm/2.4" 1.8mm/0.07"
Connector Type Lumberg		
	Time const.(secs) Max. Tip Temp.	
	0.5 375°C/707°F	

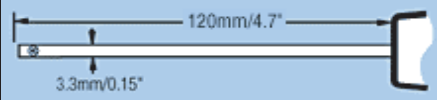
Code	Description and Application	Tip Dimension
K0454D	SURFACE PROBE K type sensor. Providing a fast response and comprising of a 3.5mm diameter spring loaded copper disc to allow uniform pressure on surface to be measured.	 125mm/4.9" 5mm/0.2" Tip detail of surface probes
Connector Type 2 pin mini		
	Time const.(secs) Max. Tip Temp.	
	0.4 500°C/932°F	

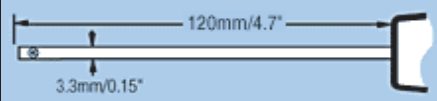
Code	Description and Application	Tip Dimension
K0584D	RUGGED SURFACE PROBE K type sensor. Fitted with heavy-duty retractile cable, providing a fast response for all types of industrial applications, including bearing temperatures.	 120mm/4.7" 11mm/0.4"
Connector Type 2 pin mini		
	Time const.(secs) Max. Tip Temp.	
	0.5 750°C/1382°F	

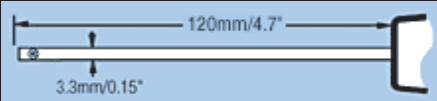
Code	Description and Application	Tip Dimension
T0835LC	HEAVY DUTY PALLET PROBE 'T' type sensor, Lumberg connector and curly cable (2106T only).	 200mm/7.8"
Connector Type Lumberg		
	Time const.(secs) Max. Tip Temp.	
	0.5 250°C/482°F	

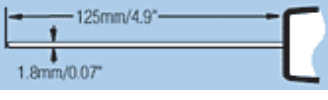
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Code	Description and Application	Tip Dimension
K0334D	RIGID AIR PROBE K type sensor. Extremely fast response ideal	
Connector Type 2 pin mini	Time const.(secs) Max. Tip Temp. 0.3 500°C/932°F	

Code	Description and Application	Tip Dimension
T0334D	RIGID AIR PROBE T type sensor version of K0334.	
Connector Type 2 pin mini	Time const.(secs) Max. Tip Temp. 0.3 375°C/707°F	


Code	Description and Application	Tip Dimension
T0334LC	RIGID AIR PROBE T' type version of K0334 with Lumberg connector and curly cable (2106T only).	
Connector Type Lumberg	Time const.(secs) Max. Tip Temp. 0.3 375°C/707°F	


Code	Description and Application	Tip Dimension
K0714D	SEMI FLEXIBLE GENERAL PURPOSE K type sensor. Versatile probe with mineral insulated sensor and inconel sheath for measurements of substances where access is restricted.	
Connector Type 2 pin mini	Time const.(secs) Max. Tip Temp. 1 1000°C/1832°F	


Code	Description and Application	Tip Dimension
K0000	EXPOSED JUNCTION THERMOCOUPLE K type sensor, for general purpose use in heating and refrigeration industries, including radiators, water, air temperatures.	
Connector Type 2 pin mini	Time const.(secs) Max. Tip Temp. 0.5 250°C/482°F	


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Code	Description and Application	Tip Dimension
H0000	FLEXIBLE AIR PROBE Thermistor sensor, for the non-destructive checking of food temperatures with a dedicated connection to the 2046T.	
Connector Type Plug	Time const.(secs)	Max. Tip Temp.
	3.5	120°C/248°F

Code	Description and Application	Tip Dimension
T0000	FLEXIBLE AIR PROBE T type sensor, used to monitor temperatures by placing the wire probe inside the fridge/freezer and shutting the door to give a true reading	
Connector Type 2 pin mini	Time const.(secs)	Max. Tip Temp.
	0.5	250°C/482°F

Code	Description and Application	Tip Dimension
T0000LS	FLEXIBLE AIR PROBE Flexible Air Probe as T0000 with Lumberg connector and straight cable, 1m long (2106T only).	
Connector Type Lumberg	Time const.(secs)	Max. Tip Temp.
	0.5	250°C/482°F

Code	Description and Application	Tip Dimension
H0000LS	FLEXIBLE AIR PROBE Thermistor version of T0000 with Lumberg connector and straight cable for 2146T thermometer.	
Connector Type Lumberg	Time const.(secs)	Max. Tip Temp.
	3.5	120°C/248°F