

**LABFACILITY**  
TEMPERATURE

# HAND HELD DIGITAL THERMOMETERS AND PROBES

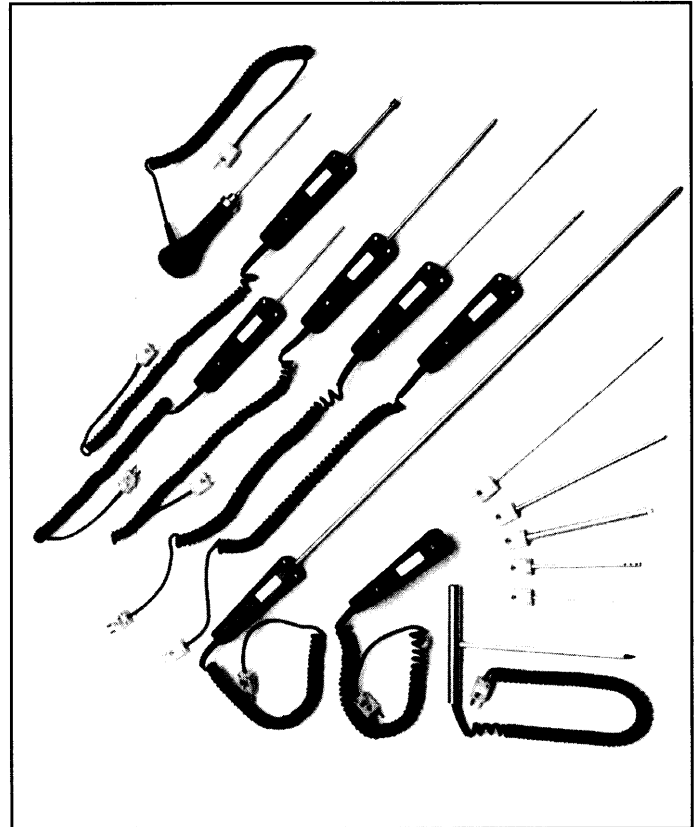
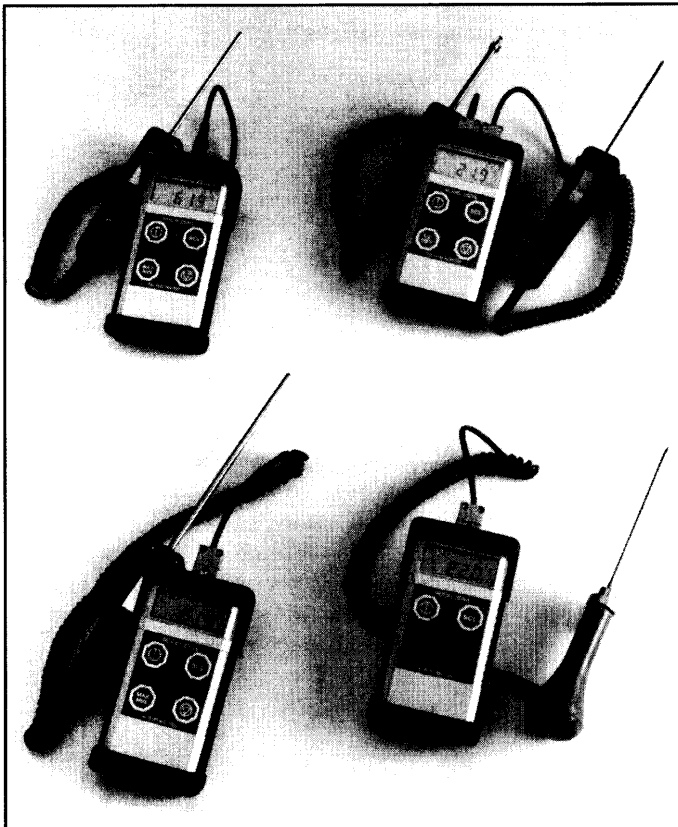
TEMPERATURE  
SENSING

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The Labfacility range includes high accuracy, compact microprocessor driven portable thermometers and a comprehensive family of hand held temperature probes to suit diverse applications.

## Hand Held Thermometers

## Hand Held Probes



- ◆ High accuracy, high resolution
- ◆ Rugged Construction
- ◆ Wide ambient tolerance -30 to +50°C
- ◆ Thermocouple types K,T,N,J,E and R or Pt100
- ◆ Other thermocouple types available
- ◆ Versatile
- ◆ Easy to use
- ◆ Single and dual inputs
- ◆ Variants for max, min, hold, differential
- ◆ Long battery life
- ◆ Very wide range
- ◆ Type K and Pt100 sensors
- ◆ Other thermocouple types to order
- ◆ Tip configuration for many applications
- ◆ All with handle, 1.5m coiled lead and miniature connector
- ◆ Plug-in probe versions
- ◆ Special applications catered for
- ◆ For use with Labfacility or other instruments

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Teddington Certificate No. 4746

# HAND HELD DIGITAL THERMOMETERS AND PROBES

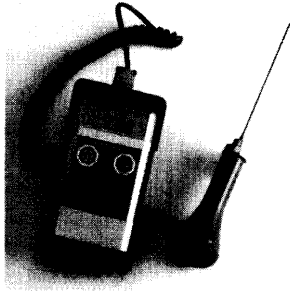
## HAND HELD THERMOMETERS

The 2000L Series digital thermometers are rugged, compact, high accuracy instruments with many user features. They are housed in a tough ABS case with a shock-resistant thermoplastic rubber holster for additional protection. The microprocessor based instruments feature a custom bright multi-function LCD display and an easy-to-use keypad. A unique feature is the wide ambient temperature range capability, **-300C to +50°C** ideal for the food industry and other demanding applications where chilling is an everyday occurrence.

Open circuit sensor detection and "low battery" warning are featured in all of the instruments.

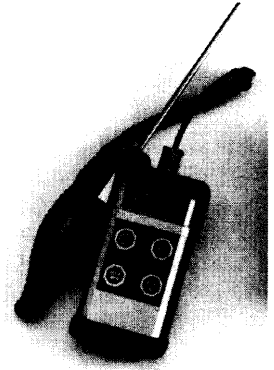
### 2000L Low Cost General Purpose Thermometer For Thermocouples

A budget priced, high accuracy microprocessor based instrument, the model 2000L is simple to use and has a wide **-200 to +1372°C** range. Resolution is **0.1°C** up to **1000°C** and the user can select thermocouple types **K,T,N,J,E** or **R** and display in **°C** or **°F**.



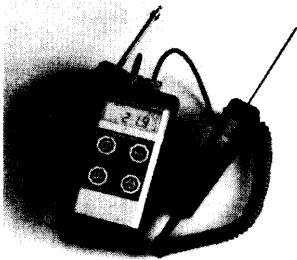
### 2010L Versatile Thermocouple Thermometer

The 2010L thermometer has all the features of the 2000L model but has extended versatility. Additional features include a switchable **°C/°F/K** display and a special display for **Max/Min/Hold** values in addition to real-time measurement. Resolution is **0.1°C** up to **1000°C** and the user can select thermocouple types **K,T,N,J,E** or **R**.



### 2020L Differential Thermocouple Thermometer

The 2020L is designed for applications which require direct or differential measurement. The many features include dual inputs, differential display, simultaneous display of both inputs and display hold. The readout can be switched between **°C/°F/K** and the measurement range is **-200 to + 1372°C**. Resolution is **0.1°C** up to **1000°C** and the user can select thermocouple types **K,T,N,J,E** or **R**.



### 2050L Versatile Thermometer for Pt100 Sensors

The 2050L thermometer provides a precise temperature display in **°C/°F/K** units and with **Max/Min/Hold** functions on an additional display. The measurement range is **-200 to +850°C** with a resolution of **0.1°C**. A 4-wire connection ensures optimum accuracy and excellent long term stability is achieved with this microprocessor based instrument.



## SPECIFICATIONS For 2000L Series Thermometers

Sensor Type	Range	Accuracy	Sensor Type	Range	Accuracy
Thermocouple K	-200 to 1372°C	±0.2°C ±0.15% of reading	Thermocouple R	-50 to 200°C	±0.8°C ±0.6% of reading
Thermocouple J	-200 to 1200°C	±0.2°C ±0.15% of reading		200 to 1767°C	±0.8°C ±0.3% of reading
Thermocouple E	-200 to 1000°C	±0.2°C ±0.15% of reading	Thermocouple N	-200 to 1200°C	±0.2°C ±0.15% of reading
Thermocouple T	-200 to 400°C	±0.2°C ±0.15% of reading	Pt100	-200 to 850°C	±0.2°C ±0.1% of reading

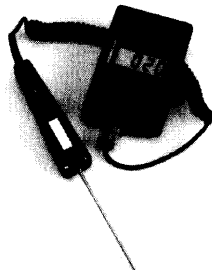
Other thermocouple types can be supplied to special order

Model	2000L	2010L	2020L	2050L
Ambient Range	-30 to +50°C	-30 to +50°C	-30 to +50°C	-30 to +50°C
Sensor Types	K,T,N,J,E,R	K,T,N,J,E,R	K,T,N,J,E,R	Pt100
Temperature Scales	°C/°F	°C/°F/K	°C/°F/K	°C/°F/K
Features	Standard	Max,Min,Hold	Channel 1,2 or Diff, Hold	Max,Min, Hold
Resolution	0.1° to 1000°, 1° above 1000° (auto ranging)			
Battery	PP3			
Battery Life	Greater than 200 hours			
Dimensions	130 x 70 x 33mm			

### Low Cost Portable Digital Thermometer TM902C

A budget priced lightweight hand-held digital thermometer for use with any type K thermocouple.

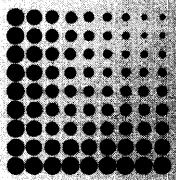
- ◆ Digital display
- ◆ Pocket-size, lightweight
- ◆ Automatic cold junction compensation
- ◆ "Low battery" indication
- ◆ Wide range **-50°C + 1200°C**



## SPECIFICATIONS For TM902C

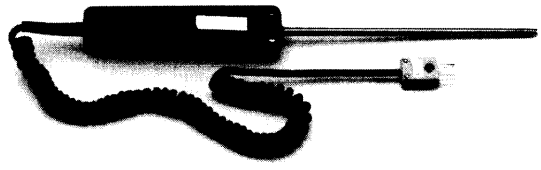
Input/Sensor	Type K thermocouple	Accuracy (at 23±5°C)
Range	<b>-50°C to + 1200°C</b>	<b>0 to 500°C ±(0.75% + 1°C)</b>
Resolution	<b>1°C</b>	<b>500 to 750°C ±(1% + 1°C)</b>
Size	<b>105 x 70 x 20mm</b>	<b>750 to 1000°C ±(2% + 1°C)</b>
Battery	<b>9V</b>	<b>1000 to 1200°C ±(4% + 3°C)</b>

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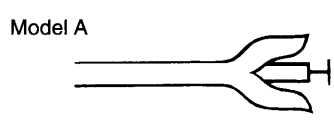
# HAND HELD DIGITAL THERMOMETERS AND PROBES



## HAND HELD PROBES

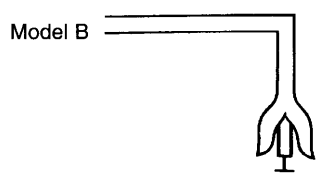
### K Type Surface, Immersion and Air Temperature Thermocouples

All of these probes have stainless steel sheaths with a moulded handle and 1.5 metres of coiled extension cable terminated in a miniature thermocouple plug for use with Labfacility instruments.



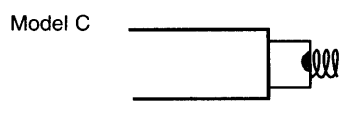
**Model A** **Surface temperature** spring loaded thermocouple with copper disc tip  
Max 850°C. Probe 4.7mm dia x 80mm Tip 4mm dia

**ORDER CODE**  
A - K



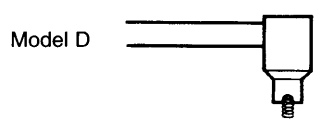
**Model B** **Surface temperature** spring loaded thermocouple as Model A but with right angled probe  
Max 850°C. Probe 4.7mm dia with 75mm hot leg and 200mm cold leg

**ORDER CODE**  
B - K



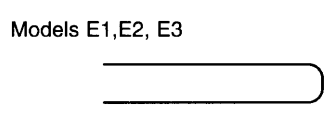
**Model C** **Surface temperature** fast response thermocouples with ceramic tip and coiled element  
Max 900°C. Probe 7.9mm dia x 100mm. Coiled element dia 5.5mm

**ORDER CODE**  
C - K



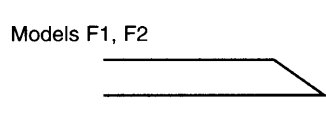
**Model D** **Surface temperature** fast response thermocouple as Model C but with right angled probe.  
Max 900°C. Probe 12.7mm dia x 20mm hot leg and 4.7mm dia x 190mm cold leg

**ORDER CODE**  
D - K



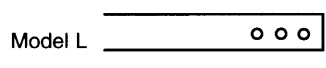
**Models E1, E2, E3** **General purpose high temperature** mineral insulated thermocouples with insulated measuring junctions. Flexible sheath.  
Max 1100°C(tip) Model E1: 100mm x 1.5mm dia  
Model E2: 200mm x 3.0mm dia  
Model E3: 500mm x 6.0mm dia

**ORDER CODE**  
E1 - K  
E2 - K  
E3 - K



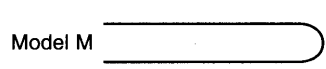
**Models F1, F2** **Chisel tip** rigid thermocouple for semi-solid materials (eg. food, plastics, rubber).  
Max 350°C Model F1: 75mm x 1.8mm dia  
Model F2: 100mm x 3.2mm dia

**ORDER CODE**  
F1 - K  
F2 - K



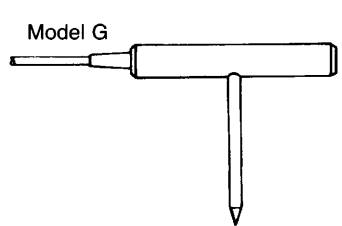
**Model L** **Fast response gas/air temperature** thermocouple with cross drilled holes in sheath around exposed measuring junction.  
Max 750°C. Probe 4mm dia x 90mm

**ORDER CODE**  
L - K



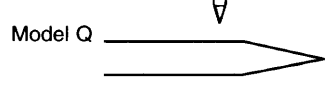
**Model M** **General Purpose, economy** thermocouple.  
Max 350°C. Probe 4.8mm dia x 150mm

**ORDER CODE**  
M - K



**Model G** **Heavy Duty Penetration** thermocouple with pointed tip for pushing into solid material such as frozen meat and bitumen.  
Max 350°C Probe 6mm dia x 150mm

**ORDER CODE**  
G - K

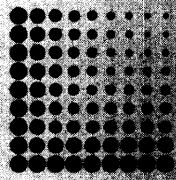


**Model Q** **Rugged penetration probe** with "pencil-point" tip for immersion in liquids, semi-solids, solids and frozen foods with special comfortable handle (see cover photograph)  
Max 400°C. Probe 3.2mm dia x 105mm

**ORDER CODE**  
Q - K

**Note:** alternative thermocouple types can be supplied to special order (e.g. types T, J etc).

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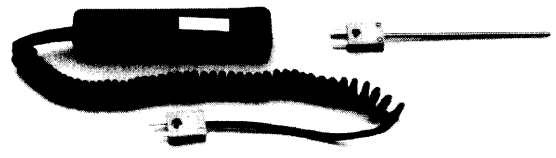


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# HAND HELD DIGITAL THERMOMETERS AND PROBES

**Interchangeable, plug-in, Type K thermocouples with host handle** (Tips as hand held probes overleaf)

All of these probes have stainless steel sheaths terminated in a miniature thermocouple connector and plug into a moulded handle via a built-in thermocouple socket. The handle is supplied with 1.5 metres of coiled extension cable terminated in a miniature thermocouple plug for use with Labfacility instruments.



MODEL HH-PL

Handle for use with plug-in probes with type K cable and miniature plug.

**ORDER CODE  
HH-PL-K**

**ORDER CODE  
A-PL-K**

**ORDER CODE  
C-PL-K**

**ORDER CODE  
L-PL-K**

**ORDER CODE**

**E1-PL-K  
E2-PL-K**

**ORDER CODE  
F1-PL-K  
F2-PL-K**

**ORDER CODE  
M-PL-K**

MODEL A-PL

**Surface temperature** spring loaded thermocouple with copper disc tip.  
**Max 850°C. Probe 4.7mm dia x 80mm**

MODEL C-PL

**Surface temperature** fast response thermocouple with ceramic tip and coiled element.  
**Max 900°C Probe 7.9mm dia x 100mm**

MODEL L-PL

**Fast response gas/air temperature** thermocouple with cross drilled holes in sheath around exposed measuring junction.  
**Max 750°C Probe 4mm dia x 90mm**

MODELS E1-PL, E2-PL

**General Purpose** mineral insulated thermocouples with insulated measuring junctions. Flexible sheath  
**Max 1100°C**  
Model E1-PL: 100mm x 1.5mm dia  
Model E2-PL: 200mm x 3.0mm dia

MODELS F1-PL, F2-PL

**Chisel tip**, rigid thermocouple for semi-solid materials (e.g. food, plastics, rubber).  
**Max 350°C**  
Model F1-PL: 75mm x 1.8mm dia  
Model F2-PL: 100mm x 3.2mm dia

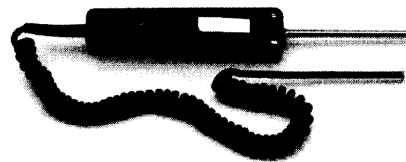
MODELS M-PL

**General purpose thermocouple**  
**Max 350°C. Probe 4.8mm dia x 150mm**

**Note: Alternative thermocouple types can be supplied to special order ( e.g. types T, J etc).**

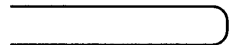
**Pt100 Surface, Immersion and Air Temperature Probes**

All of these probes have stainless steel sheaths with a moulded handle and 1.5 metres of coiled extension cable. All use 4 wire configuration and have a detector accuracy to BS1904:1984 Grade B. Closer tolerance detectors can be used to special order.



Pt100 sensors are supplied without connectors as standard. connector suitable for Labfacility Model 2050L can be fitted at extra cost.

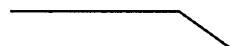
MODEL RTA



**Fast response, general purpose** immersion probe.  
**Max 350°C Probe 4.0mm dia x 100mm**

**ORDER CODE  
RTA**

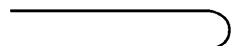
MODEL RTB



**Needle probe** resistance thermometer for penetration applications.  
**Max 250°C. Probe 2.4mm dia x 75mm**

**ORDER CODE  
RTB**

MODEL RTC



**General purpose, high temperature** probe  
**Max 500°C. Probe 4.7mm dia x 200mm**

**ORDER CODE  
RTC**

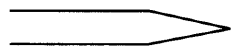
MODEL RTD



**Air temperature** probe with vented outer radiation shield.  
**Max 250°C Probe 6mm overall dia x 150mm**

**ORDER CODE  
RTD**

MODEL RTE



**Heavy duty penetration** probe with pointed tip.  
**Max 350°C. Probe 6mm dia x 150mm**

**ORDER CODE  
RTE**

Specifications and availability may be subject to change

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