

## LEGK2

### TYPE T PREMIER LEGIONELLA TEMPERATURE KIT WITH BARCODE READING THERMOMETER, STANDARD PROBES AND ACCESSORIES

#### MM7000-2D Thermometer

#### FEATURES

A handheld logging thermometer with integral barcode scanner, for recording product location/identity along with time, date and temperature. This thermometer also has built-in Bluetooth communication for data transmittal to PC

- \*\*\* °C / °F switchable
- \*\*\* Resolution of 0.1° to 1000° autoranging
- \*\*\* Switchable thermocouple types K / T / J / R / N / E / S
- \*\*\* Infra-Red sensor compatibility
- \*\*\* Full retention of thermocouple type and temperature scale
- \*\*\* User configurable Auto Switch Off capability
- \*\*\* Overrange / Open circuit sensor indication
- \*\*\* Low battery indication
- \*\*\* IP65 casing complete with protective rubber boot
- \*\*\* Integral Barcode reader for 1D and 2D barcode formats
- \*\*\* Built in Bluetooth communications
- \*\*\* Free Downloadable software

#### SPECIFICATION

##### Environmental

AMBIENT OPERATING RANGE	:	0 to 50 °C
STORAGE TEMPERATURE RANGE	:	-20 to 50 °C
HUMIDITY	:	0 to 70% R.H.

##### ELECTRICAL

MEASUREMENT RANGES	:	K	-200 to 1372 °C
		T	-200 to 400 °C
		J	-200 to 1200 °C
		R	0 to 1767 °C
		N	-200 to 1200 °C
		E	-200 to 1000 °C
		S	0 to 1767 °C
THERMOCOUPLE TYPES	:	K T J R N E S	
INFRA-RED SENSOR (Exergen K80)	:	K80 -50 to 250 °C	
TEMPERATURE SCALES	:	°C / °F	
ACCURACY @23°C	:	+/- 0.1% OF READING +/- 0.2 °C	
CHARACTERISING ACCURACY	:	LESS THAN 0.05 °C	
TEMPERATURE COEFFICIENT	:	0.01% OF READING /°C	
COLD JUNCTION COMPENSATION	:	0.0075 °C/°C	
RESOLUTION	:	0.1° to 1000, 1° ABOVE 1000	
<b>BARCODE</b>			
READABLE BARCODES	:	All UPC/EAN/JAN Codes	
	:	EAN28 Codes	
	:	Code39 Code128	
	:	PDF417	

	:	QR Code
	:	Data Matrix
	:	GS1-DataBarTM
	:	RSS, RSS Limited, RSS-14
	:	RSS-14 Stacked, RSS-Expand
<b>BLUETOOTH</b>		
CLASS	:	Class I
CONTAINS	:	FCC Id: S22btmodule-C11
<b>GENERAL</b>		
BATTERY	:	PP3 9V I.E.C. 6F22
BATTERY LIFE (INTERMITTENT USE)	:	GREATER THAN 200 HOURS (ALKALINE)
WEIGHT	:	155 gms
DIMENSIONS	:	130 X 70 X 33 mm

## **Probes**

All probes are manufactured using:

- Type 'T' Thermocouple : ½ Class I (±0.25°C ±0.15%)
- Two stage moulding technique. Firstly the probes are encased in tough nylon, then a thermoplastic over moulding is applied. This gives an extremely robust and durable construction.
- Polypropylene Handles: Polypropylene is an extremely tough and durable material, commonly used for milk crates; it has good low temperature performance and a relatively high melt temperature. It performs exceptionally well under chemical attack
- Polypropylene Cable:
  - Polyurethane cables are used in place of the standard PVC for the following reasons :-
  - Greater retractability
  - Enhanced memory of its curl
  - Non-Toxic
  - Greater mechanical strength for durability
  - 12 X 0.2mm wires used internally for greater strength.
  - PTFE inner insulation for strength and retractability.

### **TS07 SPRUNG SHIELD SURFACE PROBE**

The probe is designed for the measurement of surface temperatures with wide temperature range.

#### **Construction**

Surface probe with sprung tip with thermocouple sensor attached with draught shield: Stainless Steel 316 (Food Grade). 2M curly polyurethane cable with moulded connector.

- |   |   |               |
|---|---|---------------|
| ➤ WIDE AMBIENT TEMPERATURE SPECIFICATION      | : | -30 TO 50 °C  |
| ➤ TIME RESPONSE (96% of value on clean metal) | : | 3.0 Secs      |
| ➤ MEASUREMENT RANGE                           | : | -50 TO 400 °C |

### **TM03 TYPE 'T' GENERAL PURPOSE/IMMERSION PROBE**

The probe is truly general purpose and may be used for gas, liquid or applications with difficult access.

## Construction

Minerally Insulated Probe 3.0 mm Diameter by 100mm Long: Stainless Steel 316 (Food Grade).  
2M curly polyurethane cable with moulded connector. Complete waterproof assembly.

- WIDE AMBIENT TEMPERATURE SPECIFICATION : -30 TO 50 °C
- TIME RESPONSE (96% of value in water) : 2.0 Secs
- MEASUREMENT RANGE : -200 TO 400 °C

## **TA01 FINE WIRE (PTFE) THERMOCOUPLE SENSOR**

This sensor is constructed using a 1M length PTFE wire constructed as a twisted pair. The wire used is ½ Class 1 Type T alloys (Cu / Co). A weld bead is manufactured at one end of the wire whilst the other end is terminated in a moulded miniature thermocouple plug.

- WIDE AMBIENT TEMPERATURE SPECIFICATION : -50 TO 50 °C
- TIME RESPONSE (96% of value in moving gas) : 0.1 Secs
- MEASUREMENT RANGE : -100 TO 250 °C

## **Accessories**

### **TAPS – THERMOCOUPLE ATTACHMENT PADS**

TAPS are designed for use in attaching small diameter thermocouples, such as the TME Fine Wire Probes, to surfaces or pipes in hard to reach areas. Each kit contains a book of 20 Pads.

The pads are manufactured from 0.120mm standard grade PTFE impregnated fibreglass with 0.050mm of high temperature silicone pressure sensitive adhesive. This product is almost chemically inert. Only molten alkali metals and fluorine under elevated temperatures and pressure will attack the PTFE surface. The fibreglass provides dimensional stability and restricts PTFE cold flow. The PTFE provides a non-stick / quick release surface in heat-sealing machines, plastic bag manufacturing and roll-can covering.

Adhesion	(oz/in width)	45	
Break strength	(lbs/in width)	120	
Elongation	(%)		<5
Backing thickness	(mm)		0.120
Adhesive thickness	(mm)		0.050
Temperature range	(C)		-75 to +260
TAP Measurements approx.		17mm x 12mm (each)	
Operating Temperature Range			-75 to +260°C

### **LEGC01 Case**

The case measures: 34cm x 26cm x 6.5cm (approximate external)

Holds up to:

- 1 x Handheld Thermometer
- 2 x Straight Handled Temperature Probes
- Fine Wire Probes
- 1 x spare battery

## Cross-reference for compatible probes

Suitable probes for use with this instrument

TME PART No	DESCRIPTION	APPLICATION	T/C TYPE
KM08	LEGIONELLA SHOWER PROBE	SHOWER/WATER TEMPERATURE	K
KS20-S	HIGH SPEED REINFORCED DUAL SURFACE/IMMERSION PROBE	FOR SURFACE AND IMMERSION MEASUREMENT	K
KPS10	PIPE CLAMP PROBE	PROBE DESIGNED TO BE CLAMPED ONTO PIPES	K
KP05	NEEDLE PROBE	CORE TEMPERATURE OF SEMI-SOLID MATERIAL	K
TP05	NEEDLE PROBE	CORE TEMPERATURE OF SEMI-SOLID MATERIAL	T
KP07	NEEDLE PROBE HEAVY DUTY	CORE TEMPERATURE OF SEMI-SOLID MATERIAL	K
TP07	NEEDLE PROBE HEAVY DUTY	CORE TEMPERATURE OF SEMI-SOLID MATERIAL	T
KM01	LIGHT DUTY M.I. PROBE	GENERAL PURPOSE LIQUID/GAS MEASUREMENT	K
TM01	LIGHT DUTY M.I. PROBE	GENERAL PURPOSE LIQUID/GAS MEASUREMENT	T
KM03	M.I. PROBE	GENERAL PURPOSE LIQUID/GAS MEASUREMENT	K
TM03	M.I. PROBE	GENERAL PURPOSE LIQUID/GAS MEASUREMENT	T
KM04	M.I. PROBE EXTENDED LENGTH	GENERAL PURPOSE LIQUID/GAS MEASUREMENT	K
TM04	M.I. PROBE EXTENDED LENGTH	GENERAL PURPOSE LIQUID/GAS MEASUREMENT	T
KS01	SURFACE BAND PROBE	FAST RESPONSE SURFACE MEASUREMENT	K
TS01-S	DUAL PROBE	FOR SURFACE AND IMMERSION MEASUREMENT	T
KS07	SURFACE PROBE	GENERAL PURPOSE SURFACE MEASUREMENT	K
TS04	SURFACE PROBE	GENERAL PURPOSE SURFACE MEASUREMENT	T
KS08	HIGH TEMP SURFACE PROBE	HIGH TEMPERATURE SURFACE MEASUREMENT	K
KA04	AIR TEMPERATURE PROBE	FAST RESPONSE AIR TEMPERATURE PROBE	K
TA04	AIR TEMPERATURE PROBE	FAST RESPONSE AIR TEMPERATURE PROBE	T
TA12	SPATULA PROBE	BETWEEN PACK PROBE	T
KH01	SOCKET IN HANDLE	HANDLE FOR USE WITH PLUG MOUNTED PROBES	K
TH01	SOCKET IN HANDLE	HANDLE FOR USE WITH PLUG MOUNTED PROBES	T
KHA02	PLUG MOUNTED AIR PROBE	FAST RESPONSE AIR TEMPERATURE PROBE	K
THA2	PLUG MOUNTED AIR PROBE	FAST RESPONSE AIR TEMPERATURE PROBE	T
KHM01	PLUG MOUNTED M.I. PROBE	GENERAL PURPOSE LIQUID/GAS MEASUREMENT	K
THM01	PLUG MOUNTED M.I. PROBE	GENERAL PURPOSE LIQUID/GAS MEASUREMENT	T
KHN01	PLUG MOUNTED NEEDLE PROBE	CORE TEMPERATURE OF SEMI-SOLID MATERIAL	K
THN01	PLUG MOUNTED NEEDLE PROBE	CORE TEMPERATURE OF SEMI-SOLID MATERIAL	T
THA12	PLUG MOUNTED SPATULA PROBE	BETWEEN PACK PROBE	T
KHS01	PLUG MOUNTED SURFACE BAND PROBE	FAST RESPONSE SURFACE MEASUREMENT	K
KHS02	PLUG MOUNTED SURFACE PROBE	GENERAL PURPOSE SURFACE MEASUREMENT	K
THS02	PLUG MOUNTED SURFACE PROBE	GENERAL PURPOSE SURFACE MEASUREMENT	T
PKHV1	HVAC KIT	PROBE KIT DESIGNED FOR THE HVAC INDUSTRY	K
PKGP1	GENERAL PURPOSE KIT	PROBE KIT CONTAINING MOST POPULAR PROBES	K