

## LEGK4

### TYPE T LEGIONELLA TEMPERATURE KIT WITH THERMOMETER, DUAL SURFACE/IMMERSION AND FINE WIRE PROBES AND ACCESSORIES

#### MM2008 Thermometer



#### **FEATURES**

A single input thermocouple thermometer with an integral timer with a separate 1 minute and 2 minute count. This thermometer is primarily developed for use in Legionella risk management and offers reassurance that the correct reading is taken when monitoring hot and cold water temperatures.

- Single input thermocouple thermometer
- °C/ °F switchable
- Counter ensures that the correct temperature is met
- 1 minute counter for hot water temperatures
- 2 minute counter for cold water temperature
- Resolution of 0.1° to 1000° autoranging
- Switchable thermocouple K & T only
- Full retention of thermocouple type and temperature scale
- Auto Switch Off capability
- Easy to use software calibration
- Overage / Open circuit sensor indication
- Low battery indication
- Supplied complete with shock resistant rubber boot
- IP67 casing

#### USING THE TIMER



1. Press either  for 1 minute count or  for 2 minute count.
2. Press the same button again to switch off.

#### SPECIFICATION

##### **Environmental**

AMBIENT OPERATING RANGE	:	-30 to 50 °C
STORAGE TEMPERATURE RANGE	:	-40 to 50 °C
HUMIDITY	:	0 to 70% R.H.

##### **ELECTRICAL**

MEASUREMENT RANGES	:	K	-200 to 1372 °C
	:	T	-200 to 400 °C
THERMOCOUPLE TYPES	:	K & T	
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	

## GENERAL

BATTERY	:	PP3 9V I.E.C. 6F22
BATTERY LIFE (INTERMITTENT USE)	:	GREATER THAN 200 HOURS (ALKALINE)
WEIGHT	:	155 gm
DIMENSIONS	:	130 X 70 X 33 mm

## Probes

### TS01-S DUAL SURFACE / IMMERSION PROBE

The probe is designed for the measurement of both surface temperatures and Immersion temperatures.

### Construction

Ribbon band sensor with thermocouple sensor attached and draught shield: Stainless Steel 316 (Food Grade) Sealed with Silicon Rubber compound to ensure the probe is fully waterproof. 2M curly polyurethane cable with moulded connector.

### Sensor Features

#### ➤ TOTAL ENCAPSULATION TECHNIQUE FOR MAXIMUM STRENGTH AND DURABILITY.

This results in a solid handle as opposed to a hollow handle. This is particularly important as there is often damage to the handles caused by excess heat. With a hollow handle it is possible to puncture the outer plastic and damage the sensor irreparably.

#### ➤ WATERPROOF HANDLE

Due to the total encapsulation method used, all TME probe handles are completely waterproof.

#### ➤ TOUGH POLYURETHANE 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.

#### ➤ HIGH ACCURACY THERMOCOUPLE MATERIAL THROUGHOUT

Type 'T' Thermocouple : ½ Class I (±0.25°C ±0.15%)

#### ➤ 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.

- WIDE AMBIENT TEMPERATURE SPECIFICATION : -30 TO 50 °C
- TIME RESPONSE (96% of value on clean metal) : 10 Secs
- MEASUREMENT RANGE : -50 TO 250 °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.

Type 'T' Thermocouple : ½ Class I (±0.25°C ±0.15%)

- 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	

### **TEMPRB**

Temperature log book for temperature record keeping. Eight page log book suitable for all temperature recording, and especially HACCP critical temperature record-keeping.

### **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