

## TYPE K HEATING, VENT AND REFRIGERATION PROBE KIT

### Description

Comprising of three plug mounted probes, which can be plugged directly into a handheld thermometer, a Velcro probe and a handle, which enables the user to convert the plug mounted probes into standard length probes. This kit provides all the probes in commonly used within the heating and ventilation industry, for both installation and servicing engineers.

### All Plug Mounted Probes:

- **TOTAL ENCAPSULATION TECHNIQUE FOR MAXIMUM STRENGTH AND DURABILITY.**

This probe is manufactured using a 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 with the added benefit that the assembly is waterproof.

- **HIGH ACCURACY THERMOCOUPLE MATERIAL THROUGHOUT**

Type 'K' Thermocouple : Class I ( $\pm 1.5^{\circ}\text{C} \pm 0.25\%$ )

### KHS01 Surface Probe

The probe is designed for the measurement of surface temperatures giving a fast response time.

**NOTE:** This probe only requires light pressure to give a true reading and is suitable for smooth, clean surfaces. If used on an uneven surface, there is a risk that the band will be weakened and deformed.

### Construction

Ribbon band sensor with thermocouple sensor attached and draught shield: Stainless Steel 316 (Food Grade) 4mm diameter stem 100mm long.

- **WIDE AMBIENT TEMPERATURE SPECIFICATION** : -30 TO 50 °C
- **TIME RESPONSE (96% of value on clean metal)** : 0.1 Secs
- **MEASUREMENT RANGE** : -100 TO 250 °C

### KHM01 General Purpose Probe

This probe is ideal for the temperature measurement of liquids.

### Construction

3.0mm diameter by 100mm long minerally insulated plug mounted probe.

- **WIDE AMBIENT TEMPERATURE SPECIFICATION** : -30 TO 50 °C
- **TIME RESPONSE (96% of value in water)** : 2.0 Secs
- **MEASUREMENT RANGE** : -100 TO 750 °C

## **KHA02 Air Probe**

This probe is ideal for the temperature testing of heating and ventilation work.

### **Construction**

Air probe with exposed thermocouple sensor protected by a perforated stainless steel sheath. Insulated in ceramic sheaths.  
Sensor stem is 4mm diameter and 110mm long, the sensor is approx 5mm from the stem end.

- **WIDE AMBIENT TEMPERATURE SPECIFICATION** : -30 TO 50 °C
- **TIME RESPONSE (96% of value in moving gas)** : 0.1 Secs
- **MEASUREMENT RANGE** : -100 TO 750 °C

## **Velcro Probe**

### **Description**

This probe uses a VELCRO strip to hold a temperature sensor against a pipe to measure the temperature of the pipe.

### **Construction**

The Velcro probe is fitted with a fine wire thermocouple mounted on a Velcro strip. The probe is fitted with 1M of straight PTFE cable, complete with moulded miniature plug.

### **Sensor Features**

- **TOUGH PTFE CABLE**
- **HIGH ACCURACY THERMOCOUPLE MATERIAL THROUGHOUT**

Type 'K' Thermocouple : Class I ( $\pm 1.5^{\circ}\text{C} \pm 0.25\%$ )

- **WIDE AMBIENT TEMPERATURE SPECIFICATION** : -30 TO 70 °C
- **TIME RESPONSE (96% of value in water)** : 1.0 Secs
- **MEASUREMENT RANGE** : -50 TO 150 °C

## **KH01 Handle**

This handle is used in conjunction with the range of plug mounted probes offered by TME. The socket in the end of the handle allows for the plug mounted probes to be inserted into the handle. This means that a variety of temperature measurements may be performed using the socket in the handle and different plug mounted probes.

## Construction

Handle which includes miniature thermocouple socket into which any one of the TME plug mounted probes may be inserted. Complete with 2M curly polyurethane cable with moulded connector. Complete waterproof assembly.

### **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 'K' Thermocouple : Class I ( $\pm 1.5^{\circ}\text{C} \pm 0.25\%$ )

#### ➤ **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 : -50 TO 50 °C**

### **Cross-reference for compatible instruments**

Suitable instruments for use with this probe

RS PART No	DESCRIPTION	APPLICATION
MM2000	SINGLE INPUT INSTRUMENT	HIGH ACCURACY TEMPERATURE MEASUREMENT
MM2008	SINGLE INPUT THERMOMETER with 1 & 2 MINUTE TIMERS	LEGIONELLA TEMPRATURE MONITORING
MM2010	MAX / MIN HOLD INSTRUMENT	HIGH ACCURACY INSTRUMENT WITH MAX, MIN AND HOLD FEATURES
MM2020	DIFFERENTIAL INSTRUMENT	DUAL INPUT INSTRUMENT FOR DIFFERENTIAL MEASUREMENTS
MM2030	THERMOCOUPLE SIMULATOR	HIGH ACCURACY SIMULATOR WITH MEASUREMENT FACILITY