

DATA SHEET

PKGPK TYPE 'K' PLUG MOUNTED PROBE GENERAL PURPOSE KIT

Description

This kit combines a range of temperature probes which are in common usage across a wide range of industries. Each temperature probe is plug mounted for connection into the handle.

KH01 HANDLE FOR PLUG MOUNTED PROBES - Type 'K'

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 it's 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**

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KA01 FINE WIRE (PTFE) THERMOCOUPLE SENSOR**TYPE 'K'****FINE WIRE SENSOR - Type 'K'**Description

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

Sensor Features➤ **MOULDED PLUG**

The use of a moulded plug gives a robust construction as well as providing a waterproof termination.

➤ **HIGH ACCURACY THERMOCOUPLE MATERIAL THROUGHOUT**

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

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

(Please note may be used for temperatures down to -100°C however insulation will become brittle at temperatures below -50°C)

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KHS02 PLUG MOUNTED SURFACE PROBE TYPE 'K'**PLUG MOUNTED SURFACE PROBE - Type 'K'**Description

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

Construction

Surface probe with copper sensing tip protected by a sprung stainless steel draught shield.:
Stainless Steel 316 (Food Grade)
4mm diameter stem 100mm long. Probe tip 6mm diameter.

Sensor Features

- **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 ($\pm 1.5^{\circ}\text{C} \pm 0.25\%$)

- **WIDE AMBIENT TEMPERATURE SPECIFICATION** : -30 TO 50 °C
- **TIME RESPONSE** (*96% of value on clean metal*) : 3.0 Secs
- **MEASUREMENT RANGE** : -100 TO 750 °C

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KHP05 PLUG MOUNTED NEEDLE PROBE TYPE 'K'**PLUG MOUNTED NEEDLE PROBE - Type 'K'**Description

Needle probe plug mounted using a moulded connector.

Construction

Stainless Steel Needle probe plug mounted.
Needle is 3.3mm diameter and 100mm long with a sensor welded to the tip.

Sensor Features

- **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 ($\pm 1.5^{\circ}\text{C} \pm 0.25\%$)

- **WIDE AMBIENT TEMPERATURE SPECIFICATION** : -30 TO 50 °C
- **TIME RESPONSE** (*96% of value in water*) : 1.6 Secs
- **MEASUREMENT RANGE** : -100 TO 250 °C

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KHM01 PLUG MOUNTED GENERAL PURPOSE PROBE TYPE 'K'**PLUG MOUNTED GENERAL PURPOSE PROBE - Type 'K'**Description

Minerally Insulated probe plug mounted using a moulded connector.

Construction

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

Sensor Features

- **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 ($\pm 1.5^{\circ}\text{C} \pm 0.25\%$)

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

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KHA02 PLUG MOUNTED AIR PROBE TYPE 'K'

PLUG MOUNTED AIR PROBE - Type 'K'

Description

Air probe plug mounted using a moulded connector.

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.

Sensor Features

- **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 (±1.5°C ±0.25%)

- **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

Cross-reference for compatible instruments

Suitable instruments for use with this probe

TME PART No	DESCRIPTION	APPLICATION
MM2000	SINGLE INPUT INSTRUMENT	HIGH ACCURACY TEMPERATURE MEASUREMENT
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
SOLO-K	COMPACT SINGLE INPUT INSTRUMENT	HIGH ACCURACY TEMPERATURE MEASUREMENT