

DATA SHEET

FK2 & FK2-P Type 'T' Food Kit with MM2000 & Standard Probes

Description

A temperature monitoring kit complied for use in the food industry which contains food safe sensors to meet regulation applications. Comprising of our MM2000 Handheld Thermometer, 4 x standard probes and temperature log book.

To complete the kit, the user has a choice of hard shelled case or pouch.

MM2000 SINGLE INPUT THERMOCOUPLE THERMOMETER

FEATURES

Easy to use low cost high accuracy microprocessor based thermocouple instrument with a measurement range of -200 to +1372 °C and an operating range of -30 to 50 °C.

- *** °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
- *** Easy to use software calibration
- *** Overrange / Open circuit sensor indication
- *** Low battery indication
- *** Supplied complete with shock resistant rubber boot
- *** IP67 casing

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
		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	

GENERAL

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

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TA03 AIR TEMPERATURE PROBE TYPE 'T'

AIR TEMPERATURE PROBE - Type 'T'

Description

This probe uses the straight handle for fine control. This probe is used for the measurement of the temperature of gasses. It is especially useful for air ducts such as those used in **refrigeration, heating or air conditioning**

Construction

The probe features an exposed thermocouple junction protected by a stainless steel funnel sheath : Stainless Steel 316 (Food Grade)
 Sensor stem measures 110mm length x 4mm diameter
 Sensor funnel measures 30mm x 13mm diameter
 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 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 '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 in moving gas) | : 0.1 Secs |
| ➤ MEASUREMENT RANGE | : -100 TO 400 °C |

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TA12 FLAT FOOD TEMPERATURE PROBE TYPE 'T'**FAST RESPONSE FLAT FOOD TEMPERATURE PROBE - Type 'T'**Description

This probe uses the straight handle for fine control. The probe is designed for the measurement of temperature between products. Most commonly used as part of a goods inward inspection procedure. May also be used for liquid temperature measurement.

Construction

Stainless Steel Blade 110mm Long with 90mm x 5mm Flat: Stainless Steel 316 (Food Grade)
2M curly polyurethane cable with moulded connector. Complete waterproof assembly. This provides the user with a far more robust product than the foil type of between pack probe.

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 '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.

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|---|-----------------|
| ➤ WIDE AMBIENT TEMPERATURE SPECIFICATION | : -30 TO 50 °C |
| ➤ TIME RESPONSE (96% of value in water) | : 3.0 Secs |
| ➤ MEASUREMENT RANGE | : -50 TO 300 °C |

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TP05 TYPE 'T' NEEDLE PROBE

Needle Probes - 3.3 mm Type 'T'

Description

This probe uses the bulbous handle to enable the sensor tip to be pushed into a semi-solid product with maximum ease of use.

Construction

Needle Probe 3.3mm Diameter by 115mm Long : Stainless Steel 316 (Food Grade)
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 '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 in water) | : 1.6 Secs |
| ➤ MEASUREMENT RANGE | : -100 TO 280 °C |

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TS07 SPRUNG SHIELD SURFACE PROBE TYPE 'T'**SPRUNG SHIELD SURFACE PROBE - Type 'T'**Description

This probe uses the straight handle for fine control. 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.

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 polyurethane 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 '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) | : 3.0 Secs |
| ➤ MEASUREMENT RANGE | : -50 TO 400 °C |