

MMWALLKIT

TYPE T TEMPERATURE MONITORING KIT WITH THERMOMETER, NEEDLE, FLAT FOOD/PALLET PROBES AND WALLMOUNT HOLDER

MM2000 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

Probes

TP05 Needle Probe

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 polyurethane 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 in water)** : 1.6 Secs
➤ **MEASUREMENT RANGE** : -100 TO 280 °C

TA12 Flat Food/Pallet Probe

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 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 ($\pm 0.25^{\circ}\text{C} \pm 0.15\%$)

➤ 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) | : 3.0 Secs |
| ➤ MEASUREMENT RANGE | : -50 TO 300 °C |

ACCESSORIES

MMWALLHOLD

Thermometer and Probe Holder. Convenient wall storage that helps prevent damage to temperature monitoring equipment whilst not in use.

- Strong, hygienic stainless steel construction
- Measures: 93 x145 (incl clips) x 40mm
- Keyhole slots for ease of fitting

Requires: Wall screws.

Cross-reference for compatible probes

Suitable probes for use with this instrument

TME PART No	DESCRIPTION	APPLICATION	T/C TYPE
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
TP10	SOUS VIDE NEEDLE PROBE	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	
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
PKF1	FOOD KIT	PROBE KIT DESIGNED FOR THE FOOD INDUSTRY	T
PKGP1	GENERAL PURPOSE KIT	PROBE KIT CONTAINING MOST POPULAR PROBES	K
TP01	CORKSCREW PROBE	PROBE DESIGNED FOR CORE TEMPERATURE OF MEAT	T
KPS10	PIPE CLAMP PROBE	PROBE DESIGNED TO BE CLAMPED ONTO PIPES	K
TFS01	FOOD SIMULANT PROBE	SIMULATES THE CORE TEMPERATURE OF FOOD IN HOT OR COLD STORAGE	