

GPK2

Type K General Purpose Temperature Kit with Thermometer, Standard Probes and Case

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

All probes are:

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

KS01 SURFACE (BAND) 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). 2M curly polyurethane cable with moulded connector.
Waterproof Handle

- WIDE AMBIENT TEMPERATURE SPECIFICATION : -30 TO 50 °C
- TIME RESPONSE (*96% of value on clean metal*) : 0.1 Secs
- MEASUREMENT RANGE : -200 TO 300 °C (higher for non-continuous measurement)

KP05 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.

- WIDE AMBIENT TEMPERATURE SPECIFICATION : -30 TO 50 °C

- TIME RESPONSE (96% of value in water) : 1.6 Secs
- MEASUREMENT RANGE : -100 TO 280 °C

KM01 LIGHT DUTY GENERAL PURPOSE/IMMERSION PROBE

The probe is truly general purpose and may be used for gas, liquid or applications with difficult access.

Construction

Minerally Insulated Probe 1.5mm Diameter by 100mm Long : Stainless Steel 316 (Food Grade) 2M curly polyurethane cable with moulded connector. Complete waterproof assembly.

- WIDE AMBIENT TEMPERATURE SPECIFICATION : -30 TO 50 °C
- TIME RESPONSE (96% of value in water) : 1.0 Secs
- MEASUREMENT RANGE : -200 TO 1100 °C

KA03 MOVING AIR PROBE

This probe is used for the measurement of the temperature of gases. 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.

- 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

Accessories

GPC02 Case

Standard Carry Case with Inserts for a Handheld Thermometer, Straight and Bulbous handheld Probes and Accessories. An ideal way to keep your temperature measuring equipment in one place and protected.

Case Measurements: 34cm x 26cm x 6.5cm (approximate external)

Holds Up To

- 1 x Handheld Thermometer
- 3 x Straight Handheld Probes
- 1 x Bulbous Handled Probe
- 1 x Spare Battery

Cross-reference for compatible probes

Suitable probes for use with this instrument

TME PART No	DESCRIPTION	APPLICATION	T/C TYPE
KM01	LIGHT DUTY M.I. PROBE	GENERAL PURPOSE LIQUID/GAS MEASUREMENT	K
KM03	M.I. PROBE	GENERAL PURPOSE LIQUID/GAS MEASUREMENT	K
KM04	M.I. PROBE EXTENDED LENGTH	GENERAL PURPOSE LIQUID/GAS MEASUREMENT	K
KS01	SURFACE BAND PROBE	FAST RESPONSE SURFACE MEASUREMENT	K
KS07	SURFACE PROBE	GENERAL PURPOSE SURFACE MEASUREMENT	K
KS08	HIGH TEMP SURFACE PROBE	HIGH TEMPERATURE SURFACE MEASUREMENT	K
KA04	AIR TEMPERATURE PROBE	FAST RESPONSE AIR TEMPERATURE PROBE	K
KH01	SOCKET IN HANDLE	HANDLE FOR USE WITH PLUG MOUNTED PROBES	K
KHA02	PLUG MOUNTED AIR PROBE	FAST RESPONSE AIR TEMPERATURE PROBE	K
KHM01	PLUG MOUNTED M.I. PROBE	GENERAL PURPOSE LIQUID/GAS MEASUREMENT	K
KHN01	PLUG MOUNTED NEEDLE PROBE	CORE TEMPERATURE OF SEMI-SOLID MATERIAL	K
KHS01	PLUG MOUNTED SURFACE BAND PROBE	FAST RESPONSE SURFACE MEASUREMENT	K
KHS02	PLUG MOUNTED SURFACE PROBE	GENERAL PURPOSE SURFACE MEASUREMENT	K
PKHV1	HVAC KIT	PROBE KIT DESIGNED FOR THE HVAC INDUSTRY	K
PKGPI	GENERAL PURPOSE KIT	PROBE KIT CONTAINING MOST POPULAR PROBES	K
KPS10	PIPE CLAMP PROBE	PROBE DESIGNED TO BE CLAMPED ONTO PIPES	K