

KANE-MAY THERMOMETERS

*KM22/KM22F

- Full size Foodcheck thermometer
- Type T thermocouple and thermistor sensor compatibility
- Fast response and accuracy as required by food hygiene regulations
- Selectable auto switch off
- °F version available-KM22F
- Can be supplied in a kit, recommended for the UK quality assurance and environmental health requirements, kit ref: KM22/EHO/KIT, see below

Sensor Type	Thermistor/ Thermocouple type T
Measurement Range Thermistor: Type T:	 –40°C/–40°F to +110°C/230°F –200°C/–328°F to +400°C/+750°F
Scales KM22 KM22F	 °C °F
Resolution	0.1°
Accuracy at +23°C/+73°F Thermistor (system) Type T	 <±0.5°C/±0.6°F, –25°C/–13°F to +100°C/+212°F <±0.1% of reading ±0.1°C/±0.8°F
Operating Temperature Range	–25°C/–13°F to +50°C/+122°F
Connector Type	Lumberg
Battery Type	9V IEC 6LF22 alkaline
Battery Life	100 hours

*KM21

- Full size Foodcheck thermometer
- Thermistor sensor for accuracy required by food hygiene regulations
- Auto switch off
- Can be supplied in a choice of kits:- the Professional Caterers kit, ref: KM21/PC/KIT, or the Food kit, ref: KM21/F/KIT, see below

Sensor Type	Thermistor
Measurement Range	–40°C to +110°C
Scales	°C
Resolution	0.1°
Accuracy at +23°C/+73°F (system)	±0.5°C, 0°C to +70°C, ±1.0°C full range
Operating Temperature Range	0°C to +40°C
Connector Type	Lumberg
Battery Type	9V IEC 6LF22 alkaline
Battery Life	300 hours

*KM20REF REFERENCE THERMOMETER

- High accuracy reference thermometer for checking the calibration of all types of thermometer/probe combinations
- PT100 sensor and permanently attached probe for highest system accuracy
- Complete with 5 point UKAS Certificate of Calibration
- Supplied with hard carrying case

Sensor Type	PT100
Measurement Range	–100°C to +199.9°C
Scale	°C
Resolution	0.1°
System Accuracy at +23°C	±0.2°C
Operating Temperature Range	0°C to + 40°C
UKAS Certificate Calibration Points	–18°C, 0°C, +5°C, +8°C, +20°C
Battery type	IEC 6LF22 alkaline
Battery Life	100 hours

Temperature Probes

Comark produces one of the widest ranges of probes for the food industry available anywhere. They are the ideal match for Comark and Kane-May temperature measurement instruments and can also be used with many other instrument brands.

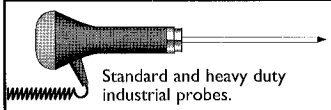
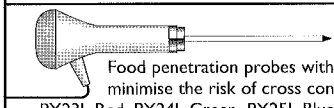
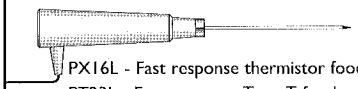
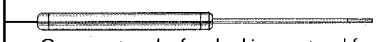
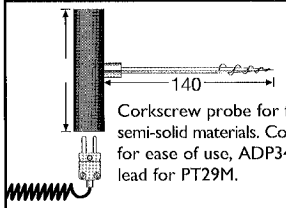
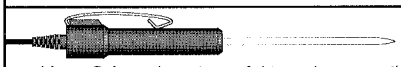
Full details of Comark probes are given in a separate leaflet, ref: C084.

There is a standard Comark probe for almost every food production, processing, storage and catering application and a selection is included here. Comark can also supply probes for specialist applications by modifying existing probes or by designing and building probes to customer specifications. Comark Technical Services or your local Distributor can offer advice or a detailed quotation.

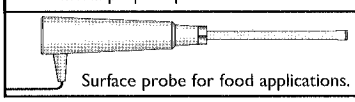
Most Comark probes can be used with Intrinsically Safe instruments and there is a wide selection of accessories including extension leads, plugs, switch boxes, tempatches and thermocouple wire.

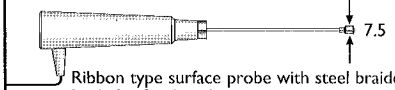
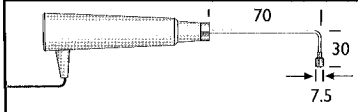
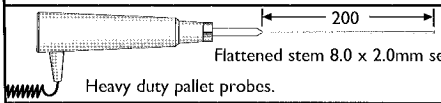
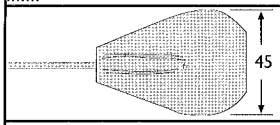
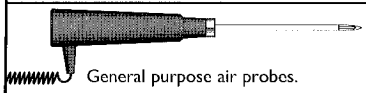
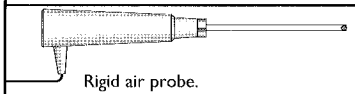
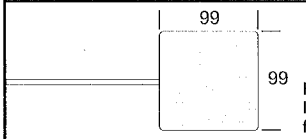
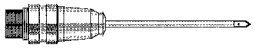
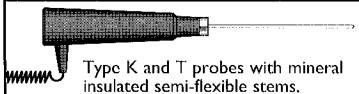
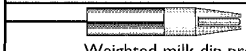
Comark can also certify temperature probes, either alone or with an instrument where system accuracy is required. Comark has an in-house UKAS accredited temperature calibration laboratory for UKAS certificates of calibration and can also issue certificates traceable to NPL and Comark standards. Further information on Comark calibration and certification is given on page 16.

Penetration Probes

	Sensor	Connector	Temp Range °C	Response Time (secs)†	Stem Length (mm)	Stem Dia (mm)	Lead Length (m)	Lead Material	Code
 Standard and heavy duty industrial probes.	K	M	–50°C to +250°C	2.0	100	3.3	1.0	PVC	**PK24M**
	T	M	–100°C to +250°C	2.0	100	3.3	1.0	PVC	**PT22M**
	PT100	L	–200°C to +250°C	8.0	100	3.3	1.0	PVC	**PP23L**
 Food penetration probes with coloured end caps to minimise the risk of cross contamination. PX22L White, PX23L Red, PX24L Green, PX25L Blue. PT24L - Type T sensor food probe with steel braided lead. PT24L/C - Version of PT24L with coiled lead. PX22L/C - Version of PX22L with coiled lead. PX29M - Thermistor probe for use with C8800 monitoring systems.	PST	L	–40°C to +150°C	5.0	100	3.3	0.7	FEP	**PX22L**
	PST	L	–40°C to +150°C	5.0	100	3.3	0.7	FEP	**PX23L**
	PST	L	–40°C to +150°C	5.0	100	3.3	0.7	FEP	**PX24L**
	PST	L	–40°C to +150°C	5.0	100	3.3	0.7	FEP	**PX25L**
	PST	L	–40°C to +150°C	5.0	100	3.3	1.0	PVC	**PX22L/C**
	T	L	–100°C to +250°C	2.0	100	3.3	0.7	PTFE	**PT24L**
	T	L	–100°C to +250°C	2.0	100	3.3	1.0	PVC	**PT24L/C**
	PST	M	–40°C to +70°C	5.0	100	3.3	3.0	FEP	**PX29M**
 PX16L - Fast response thermistor food probe. PT23L - Fast response Type T food probe with steel braided lead.	PST	L	–40°C to +150°C	0.5	100	1.6	0.7	FEP	**PX16L**
	T	L	–100°C to +250°C	0.5	100	1.6	0.7	PTFE	**PT23L**
 Probe with print start switch for KM1223DTR.	PST	L	–40°C to +150°C	5.0	100	3.3	3.0	FEP	**PX27L**
 Oven meat probe for checking meat and food temperatures during cooking.	K	M	–50°C to +250°C	2.0	100	3.3	2.5	PTFE	**PK23M**
	T	L	–100°C to +250°C	2.0	100	3.3	2.5	PTFE	**PT26L**
 Integral plug probe.	T	L	–100°C to +250°C	2.0	100	2.4	-	-	**PT25L**
	PST	L	–40°C to +150°C	5.0	100	3.3	-	-	**PX33L**
 Corkscrew probe for frozen foods and other semi-solid materials. Complete with detachable lead for ease of use, ADP34 lead for PT29L, ADP35 lead for PT29M.	T	L	–100°C to +250°C	4.0	140	8.0	1.0	PVC	**PT29L**
	T	M	–100°C to +250°C	4.0	140	8.0	1.0	PVC	**PT29M**
 Note: Coloured versions of this probe are available for KM290 HACCP thermometers - see page 7 for relevant part numbers.	PST	B	–40°C to +150°C	5.0	80	3.3	0.4	PVC	**PX21B**

Surface Probes

 General purpose probe.	K	M	–50°C to +250°C	0.2	100	7.5	1.0	PVC	**SK21M**
 Surface probe for food applications.	PST	L	–40°C to +150°C	12.0	100	6.0	0.7	FEP	**SX22L**

	Sensor	Connector	Temp Range °C	Response Time (secs)†	Stem Length (mm)	Stem Dia (mm)	Lead Length (m)	Lead Material	Code
Surface Probes									
 Ribbon type surface probe with steel braided leads for food applications.	T	L	–100°C to +250°C	0.2	100	7.5	0.7	PTFE	**ST21L**
 Ribbon type surface probe with steel braided leads for food applications.	T	L	–100°C to +250°C	0.2	70/30	7.5	0.7	PTFE	**ST22L**
 Flattened stem 8.0 x 2.0mm section Heavy duty pallet probes.	K	M	–50°C to +250°C	4.0	250	8 x 2	1.0	PVC	**SK38M**
	T	M	–100°C to +250°C	4.0	250	8 x 2	1.0	PVC	**ST38M**
	T	L	–100°C to +250°C	4.0	250	8 x 2	1.0	PVC	**ST38L**
 Between pack temperature probes. ST23L and ST24L with steel braided leads.	T	L	–40°C to +70°C	5.0	-	-	1.0	PTFE	**ST23L**
	PST	L	–40°C to +70°C	15.0	-	-	1.0	PEP	**SX23L**
	T	L	–40°C to +70°C	5.0	-	-	3.0	PTFE	**ST24L**
	PST	L	–40°C to +70°C	15.0	-	-	3.0	PEP	**SX24L**
Air Probes									
 General purpose air probes.	K	M	–100°C to +850°C	0.5	100	3.3	1.0	PVC	**AK21M**
 Rigid air probe.	PST	L	–40°C to +70°C	10.0	100	3.3	0.7	FEP	**AX23L**
Flexible thermocouples.	K	M	–100°C to +250°C	0.5	-	-	1.0	PTFE	**AK28M**
	T	M	–100°C to +250°C	2.0	-	-	1.0	PTFE	**AT26M**
	K	M	–100°C to +250°C	0.5	-	-	5.0	PTFE	**AK29M**
	T	L	–100°C to +250°C	0.4	-	-	1.0	PTFE	**AT26L**
Fast response flexible probe with steel braided lead.	T	L	–100°C to +250°C	2.0	-	-	1.0	PTFE	**AT22L**
Flexible probes. Note: Coloured versions of the AX22B probe are available for KM290 HACCP thermometers - see page 7 for relevant part numbers.	PST	L	–40°C to +70°C	10	-	-	1.0	FEP	**AX24L**
	PST	L	–40°C to +70°C	10	-	-	3.0	FEP	**AX25L**
	PST	M	–40°C to +70°C	10	-	-	5.0	FEP	**AX28M**
	PST	M	–40°C to +70°C	10	-	-	10.0	FEP	**AX29M**
	PST	B	–40°C to +70°C	10	-	-	1.0	FEP	**AX22B**
 Food simulant probes for long term measurements of food in fridges and freezers.	PST	M	–40°C to +70°C	100	-	-	2.0	FEP	**DX29M**
	PST	L	–40°C to +70°C	100	-	-	2.0	FEP	**DX31L**
 Damped sensor probes to slow down response times in applications where air temperatures change faster than the product temperatures, eg. food in fridges and freezers.	PST	L	–40°C to +70°C	30.0	-	8.0	2.0	FEP	**DX28L**
	PST	M	–40°C to +70°C	30.0	-	8.0	2.0	FEP	**DX43M**
 Integral plug probe.	T	L	–100°C to +250°C	0.4	75	3.3	-	-	**AT25L**
Immersion Probes									
 Type K and T probes with mineral insulated semi-flexible stems.	K	M	–100°C to +1100°C	0.4	100	1.5	1.0	PVC	**IK21M**
	PT100	L	–200°C to +500°C	8.0	200	4.0	1.0	PVC	**IP22L**
	PT100	L	–200°C to +500°C	15.0	300	6.0	1.0	PVC	**IP23L**
	T	M	–200°C to +400°C	1.0	300	3.0	1.0	PVC	**IT22M**
 Deep fat probe for food applications.	T	L	–200°C to +400°C	1.0	500	3.0	0.7	PTFE	**IT21L**
 Weighted milk dip probe for dairy applications, also suitable for other liquid dip applications	T	M	–40°C to +150°C	2.0	90	-	2.0	PTFE	**IT23M**
	T	L	–40°C to +150°C	2.0	90	-	2.0	PTFE	**IT23L**
	PST	L	–40°C to +150°C	5.0	90	-	2.0	FEP	**IX23L**

COMARK ORDER CODES

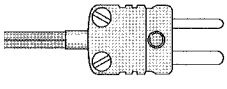
Probe Category	Sensor Type	Connector Type
P: Penetration	K: Type K thermocouple	M: Sub-miniature
S: Surface	T: Type T thermocouple	L: Lumberg
A: Air	X: Thermistor (PST)	B: Bipole
I: Immersion	P: PT100	

P K 24 M

Example — **Sequential code number**

CONNECTOR TYPES

M: Sub-Miniature



L: Lumberg



B: Bipole



†The time constant is the time taken for the probe to reach 63% of the value of the temperature change. Multiply x 3 for the time taken to achieve 95% and by 5 for 99%.

Thermocouples: · Tolerances relate to BS EN60584–2 (1993), Class A.

All dimensions are in mm.