

Food Tracker®

Thermocouples



Thermocouples are supplied with water tight connectors and gold plated connections to provide IP67 rating of the logger and guarantee reliability and accuracy in the most hostile of environments (steam/water/condensation, etc.). Thermocouples can be mixed and matched and interchanged. By selecting the appropriate thermocouple(s), the same unit can be used to monitor multiple different processes and products, maximizing its effectiveness for all your food processes.

Thermocouple cable lengths can be customized to match the exact requirements of the process. Using cables, the temperature sensor is positioned away from the data logger thermal barrier in the product, preventing the thermal mass of the data logger from affecting the heating characteristics of the product being measured. Unlike systems which require the measurement device to be placed inside the product to protect from the oven temperature, the measurement made by the Multipaq system is an accurate representation of what the product experiences during a normal production run.

Type K	ANSI MC 96.1 Special Limits of Error	$\pm 1.1^{\circ}\text{C}$ (2°F) $\pm 0.4\%$	0°C to 1250°C (32°F to 2282°F)
Type T	BS EN 60584.1 Class I	$\pm 0.5^{\circ}\text{C}$ (1°F) or $\pm 0.4\%$	-40°C to 350°C (-40°F to 662°F)

Thermocouples supplied in either Type K or Type T

THERMOCOUPLE OPTIONS

MI Needle Probe

Ambient or product temperature where temperatures exceed 265°C (509°F)

Standard Needle

PTFE cable with insertion probe. Needle length 90 mm (3.5 in), 1.6 mm (.06 in) in diameter. Used to measure internal product temperatures for medium to large products.

Short Needle

PTFE cable with insertion probe. Needle length 40 mm (1.6 in), 1.6 mm (.06 in) in diameter, with location barb to prevent probe movement. Used to measure internal product temperatures for small to medium-sized products or surface temperatures for large products.

Heavy Duty Probe

PTFE cable with insertion probe. Needle length 125 mm (5 in), 3.2 mm (.12 in) in diameter, with location barb to prevent probe movement and includes a handle to aid with insertion. Used to measure internal product temperatures for large-sized products, typically meat products where probe insertion may be difficult.

Air Clip Probe

PTFE cable with air temperature sensor mounted on a clip attachment. Used for environmental monitoring of an oven fitted to a product rack or tray used to transport the product.

Food Core Probe

PTFE cable with exposed temperature sensor. Used for environmental monitoring or insertion into products in a semi-solid / liquid state prior to cooking, e.g. bakery.

Food Can Probe

PTFE cable with long round ended needle. Needle length 200 mm (8 in), 1.6 mm (.06 in) in diameter. Used in combination with a can adaptor (PA0620) to measure the internal product temperature of a sealed can / bottle in pasteurization or sterilization processes.



TECHNICAL SPECIFICATIONS

	Type T	Type K	Barrier Compatibility
DP21 MI Needle Probe	PA150(x)	PA151(x)	All
DP21 Food Core Probe	PA148(x)	PA149(x)	All
DP21 Air Clip Probe	PA154(x)	PA155(x)	Not TB5814/TB5816
DP21 Short Needle Probe	PA144(x)	PA145(x)	All
DP21 Standard Probe	PA146(x)	PA147(x)	All
DP21 Heavy Duty Probe	PA142(x)	PA147(x)	Not TB5814/TB5815/TB5816
DP21 Food Can Probe	PA152(x)	PA153(x)	All
Food Can Adapter	PA0620	PA0620	–

Note: cable length given by last digit (x) of part number
 0 = 0.3 m (0.9 ft) 2 = 0.6 m (1.9 ft) 3 = 1.0 m (3.2 ft) 5 = 2.0 m (6.5 ft)










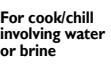

USE OF THERMOCOUPLES WITH SUBMERSIBLE BARRIERS

TB5815 / TB5816 / TB5817/TB5016

Fit probe seal appropriate to the cable being used.

To guarantee waterproofing of a barrier in submersible applications, be sure to use the correct probe seal for the probe type being used. Match seal color to the probe type.

Probe seal selection

 MI probe TB9711	 Core & short needle probe TB9760	 Standard needle probe TB9712	 No probe TB9714	 PA0962A Blank food barrier adapter	 PA0960A MI food barrier adapter
					

PROBE ACCESSORIES

PA2014 Probe ID tags (bag of 8)

Threaded onto cable to allow easy channel identification during product probing

Boil in the bag Patch Probe

Used to allow insertion of a needle probe via the wall of a bag/pouch without the need to fit connectors inside the bag. Probe needle is held secure and provides a seal from loss of vacuum or fluid. Bag splitting problems eliminated.

PA1700 (bag of 10)

Thermocouple adhesive fixing patch

PA0620

Can/bottle adaptor



Fluke Process Instruments

EMEA

Cambridge, UK
 Tel: +44 1223 652 400
sales@flukeprocessinstruments.co.uk

Americas

Salem, NH USA
 Tel: +1 425 446 6780
sales@flukeprocessinstruments.com

China

Beijing, China
 Tel: +86 10 6438 4691
sales@flukeprocessinstruments.com.cn

Asia East and South

India Tel: +91 22 2920 7691
 Singapore Tel: +65 6799 5596
sales.asia@flukeprocessinstruments.com

Worldwide Service

Fluke Process Instruments offers services, including repair and calibration. For more information, contact your local office.

www.flukeprocessinstruments.com

© 2019 Fluke Process Instruments
 Specifications subject to change without notice.
 01/2019 FDT Thermocouples_DS_Rev. B1