

PORTABLE THERMOCOUPLE THERMOMETERS Models 5100 and 5200

Years of production and field experience have made these thermometers ideal for the most demanding applications, so we back them with a full 1 year warranty regardless of actual usage. Our rigid quality standards consist of vibration testing, temperature cycling, power-on discharge, and a double calibration procedure using NIST traceable standards. Also, our polymer coated circuits will perform properly in adverse environments.

TC calibrations available are **T, K, or J** linearized in four sections for good accuracy (calibration ranges other than those shown are available on special order).

RTD cold junction compensates accurately for ambient temperature changes as fast as 2° per minute.

Bright red LED display is .42" (11 mm) high for excellent readability in shaded sunlight or in a darkroom.

Impact resistant case with an edge viewable display and **snap-on neck strap** allows user to take readings and have one hand free.

Rechargeable NICAD battery pack is built-in and provides at least two years of minimum cost power. A single 8 hr. charge will operate the instrument at least 10 hrs.

Charger and neck strap are included with each instrument.

Wide variety of probes and cables are available for this meter. These probes and cables are built for long life in very demanding applications.

SPECIFICATIONS:

Display Range:

-199 to 1999 °F or °C. Usable range varies with TC type (see ordering section).

Measuring Accuracy:

± ½% of reading ±1 degree using ANSI millivolt-temperature standards.

Display Indication:

Updated three times per second on LED digits 0.42" (11 mm) high

Washable external storage well # ACCN-0105



MODEL 5100-PQ00 with probe TPC1-K105



MODEL 5100-DKC3 with coiled cable & connector

Built in calibration reference available. Simply press the push button on the back of the unit to display the calibration number to adjust.

Instrument Environmental Range:

-15° to 130°F or -26° to 54°C and 90% R.H. max.

Cold Junction Offset:

One degree max. for an ambient range of 32° to 110°F or 0° to 43°C.

Construction:

ABS case which measures 6.5" L x 3.5" W x 1.5" H and weighs 1 lb.

ORDERING INFORMATION

SCALE: _____

Fahrenheit reading
Celsius reading

PERMANENTLY ATTACHED PROBE: _____

HVAC probe with 3 ft. reach coiled cable (see detail)
Same as above with 5 ft reach

See "PERMANENT TC PROBES" sheet to select probe
specify separate probe number with this option

CABLE WITH CONNECTOR: _____

Coiled cable with 3 ft. reach (see detail)
Same as above with 5 ft reach
Heavy-duty 3 ft straight cable (see detail)
Same as above 5 ft long
Armored 3 ft Stainless Steel straight cable
Same as above 5 ft long

See "DETACHABLE TC PROBES" sheet to order probes

THERMOCOUPLE CALIBRATION: _____

K type 1/2% range is -60 to 2000 °F (-50 to 1100°C)
K type, high accuracy ±1°F -30 to 400 ±2°F -50 to 550°F
T type 1/2% range is -60 to 400 °F (-50 to 205°C)
J type 1/2% range is -60 to 1400 °F (-50 to 750°C)

MODEL - OPTIONS

5 0 0 -

1
2

P	C 1
P	C 5
P	0 0

D	C 3
D	C 5
D	B 3
D	B 5
D	S 3
D	S 5

K
Q
T
J

INSTALLED ACCESSORY: _____

Washable external storage well for food-use probes 1/8" dia. 5" lg. such as TPC1-K105

A C C N - 0 1 0 5

* Prices and specifications are subject to change without notice

-PKC1 & -PKC5 Permanently attached coiled cable and probe.

This fast responding probe is ideal for gas and liquids and soft solids.
Construction: Stainless steel #304, 4.5" x 0.11" dia. immersible.
Response time: 8 seconds in water, 50 seconds in air.



-DKC3 & -DKC5 Cables for use with detachable TC-K probes.

1/4" dia. polyurethanes cable, coiled for maximum flexibility, with a STANDARD size connector.



-DKB3 & -DKB5 Heavy-duty cables for use with detachable TC-K probes.

1/4" dia. straight polyurethane cable, reinforced with a flexible steel core for maximum strength.



DS-5100 v01-07



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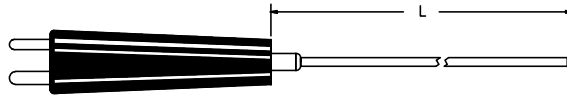
DETACHABLE "TC" PROBES FOR MODELS 5100-D & 5200-D

IMC's **PRECISION TC PROBES** are made using "K" type thermocouple wire selected to meet NIST traceable accuracy of $\pm 1/2\%$ of reading $\pm 1^\circ\text{F}$ from -40°F to the probe limit. All probes are available in "J" type, and all stem probes are available in "T" type for use to 400°F max. Reinforced mini-plugs are available on any probe. All connectors and handles are rated to 400°F intermittent or 350°F continuous.

Note: when ordering these probes order a type "K" thermocouple meter. Some probes are also available in "T" or "J" type thermocouple.

DESCRIPTION	Max. Tip °F (°C)	99% Resp. Time (s)		L (in.)	Probe Number
		Water	Air		
General purpose, for sampling temperature of gases, liquids, or semi-solids. Stem is .125" dia. fully tempered stainless steel #304. Probe is immersable and can be used for sampling foodstuff.	1000(540)	12	90	4.5	8021-4003
				7.5	8021-4007

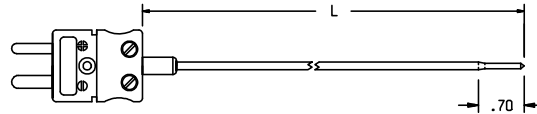
HANDLE IS 3.25" LG X .94" DIA



General purpose for use in gases, liquids and soft semi-solid materials. Stem is 0.11" dia. tapering down to .08" dia. full-temper stainless steel #304. Fast response in gases makes this a good choice for HVAC applications.

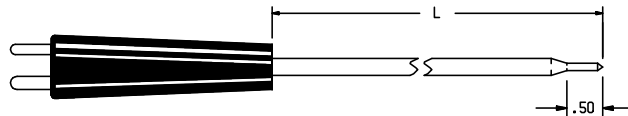
1000(540)	5	50	4.5	8021-5004
			9.5	8021-5009

HD CONN. IS 1.31L X 1.0W X 0.5T



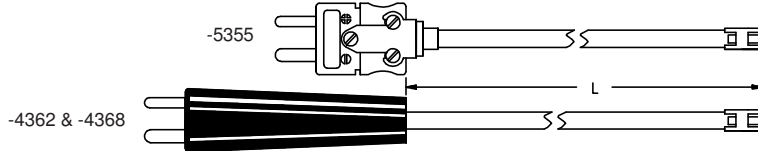
For probing liquids or semi-solid materials with long reach. Stem is bendable stainless steel .25" dia. with a rigid .125" dia. tip for easy penetration. Typical uses are in beverage and food processing.

1000(540)	15	100	18	8021-4118
			36	8021-4136



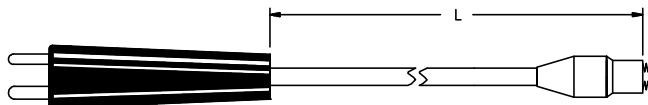
For use on most any surface with good response in air. Probe has a bendable stainless steel #304 stem .25" dia. with a .31" dia. head. Head houses a bow stainless steel spring with a sensing area suitable for small parts. Typical uses are in the plastics and the HVAC industries.

550 (288)	Air	Surfaces		4.5	8021-5355
	50	Metal	Plastic		
		3	10	18	8021-4362
				18	8021-4368



High temp. surface probe with coiled TC junction for use on metal, glass or ceramic surfaces. Also has good response in air. Stem is stainless steel #304 .25" dia. with a .50" dia. ceramic head. Typical use are in foundries and extrusion shops.

1300 (705)	Air	Surfaces		12	8021-4462
	50	Metal	Glass	18	8021-4468
		6	15	24	8021-4474



* Customer specified bend along any bendable probe stem is extra.

PERMANENT "TC" PROBES FOR MODELS 5100-P & 5200-P

IMCs Cable-Probes are manufactured for applications in the food, beverage, and chemical industries. Probe construction includes a polyurethane cable, a phenolic handle for temperature resistance and a choice of stems to suit almost any application. The cable construction is rated for -30 to 200 °F and has good abrasion and cut-through resistance. Optional 1/4" dia. stainless steel armored cables are also available but not recommended for food contact applications. Handles are 3.25" long x .94" tapered with either side or back cable exit. The probe and cable are fully immersable.

Note: when ordering these probes order a type "K" thermocouple meter. Some probes are also available in "T" or "J" type thermocouple.

For use to sample semi-solids such as meat, ice cream, vegetables, or pre-drilled hard-frozen foodstuff. The stem is .125 dia. fully tempered stainless steel #304.

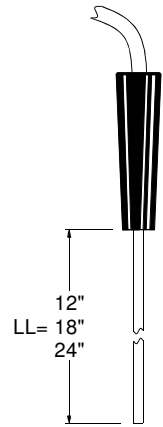
PROBE #	CABLE LEN.
TPC1-K10L	3 ft
TPC2-K10L	5 ft

99% Response time in oil = 12 secs.

Fast responding immersion probe for use with beverages or other low viscosity mixes. Stem is made of .19 dia bendable stainless steel #304.

PROBE #	CABLE LEN.
TPD1-K2LL	3 ft
TPD2-K2LL	5 ft

99% Response time in oil = 18 secs.



For use to probe liquids or semi-solids with long reach. Stem is made from .25 dia. bendable stainless steel #304 and steps down to .125 dia. rigid tip for easy penetration and fast response.

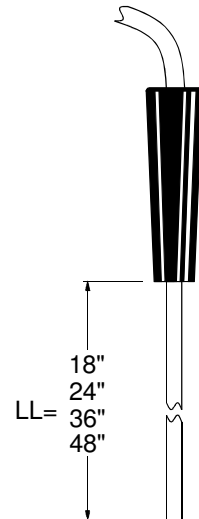
PROBE #	CABLE LEN.
TPC1-K3LL	3 ft
TPC2-K3LL	5 ft

99% Response time in oil = 16 secs.

Heavy-duty immersion probe for use in semi-liquid mixes such as, fudge, chocolate, soups, etc. Stem is made of .25 dia. bendable grade stainless steel #304.

PROBE #	CABLE LEN.
TPD1-K3LL	3 ft
TPD2-K3LL	5 ft

99% Response time in oil = 24 secs.



ORDERING INFORMATION: All prices listed above are F.O.B. factory or distributor warehouse. Contact distributor listed below for assistance. Products are warranted against material or workmanship defects for a full year from date of shipment.

Specifications are subject to change without notice.

DS5100 01/07

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