

PRECISION PORTABLE THERMOMETERS

Models 2300 and 2400

After many years of field use, these digital thermometers earned the reputation of maintaining accuracy while under rigorous use. The rugged construction features a high impact ABS plastic case, heavy-duty coiled cord, long-life sealed switches and moisture protected circuits for use in high humidity environments. A calibration feature is also included which permits field calibration of the instrument and provides assurance of factory accuracy each time.

The **nickel RTD precision sensor** is repeatable to ± 0.1 degree over the entire measuring range.

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

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

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.

Built in calibration reference. Simply actuate the switch to display the calibration number and turn the adjustor to match the factory accuracy.

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:

Measuring Range:

Usable range is -50.0 to 250.0 °F (-50 to 121 °C).
Probe limit is -75 to 275 °F.

Measuring Accuracy:

| Temp °F: | <u>-50</u> | <u>70</u> | <u>250</u> |
|----------|------------|-----------|------------|
| 2300-PN | ± 0.3 | ± 0.1 | ± 0.3 |
| 2300-DN | ± 0.8 | ± 0.2 | ± 0.8 |

| Temp °C: | <u>-45</u> | <u>20</u> | <u>120</u> |
|----------|------------|-----------|------------|
| 2400-PN | ± 0.2 | ± 0.1 | ± 0.2 |
| 2400-DN | ± 0.4 | ± 0.1 | ± 0.4 |

Washable external storage well # ACCN-0105



MODEL 2300-PN00 with FOOD-USE probe TPC1-N105



MODEL 2300-PNC1 with HVAC probe for gas/liquid

Charger and neck strap are included with each instrument.

Instrument Environmental Range:

-20° to 140° F (-30° to 60° C) and 90% RH max.

Ambient Temperature Effects:

0.15% of reading while meter is at 0° or 120° F and adjusted to agree with factory calibration.

Display Indication:

Updated 3 times per second on LED digits
0.42" (11mm) high.

Construction:

Unit measures 6.5" L x 3.5" W x 1.5" H and weighs 1 lb. without probe.

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 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

See "DETACHABLE PROBES" sheet to select probe

INSTALLED ACCESSORY: _____

Washable external storage well for food-use probes

1/8" dia. 5" lg. such as TPC1-N105

MODEL - OPTIONS
2 0 0 -

3

4

P N C 1
P N C 5
P N 0 0

D N C 3
D N C 5
D N B 3
D N B 5

A C C N - 0 1 0 5

* Prices and specifications are subject to change without notice

-PNC1 & -PNC5 Permanently attached coiled cable and probe.

This fast responding probe is ideal for gases, liquids and soft solids.

Construction: Stainless steel #304, 4.5" lg. x 0.11" dia. immersible.

Response time: 8 seconds in water, 50 seconds in air.



-DNC3 & -DNC5 Cables for use with detachable RTD-NI probes.

1/4" dia. polyurethane cable, coiled for maximum flexibility, with DIN precision connectors.



-DNB3 & -DNB5 Heavy-duty cables for use with detachable RTD-NI probes.

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



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DS-2300 v07-07

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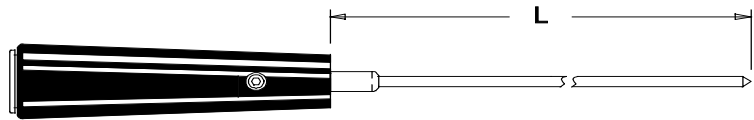
DETACHABLE RTD-NI PROBES FOR MODELS 2300-DN & 2400-DN

IMC'S PRECISION RTD PROBES for models 2300 through 2401, are made with our highly stable Nickel sensors and calibrated using NIST traceable references. All probes are quality constructed using heat resistant handles, microphone-type connectors and stainless steel stems. Select from standard designs shown below or contact the factory for custom requirements.

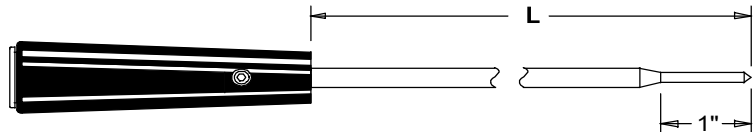
Note: The maximum allowable tip temperature on any of these probes is 275 °F.

| DESCRIPTION | Max. Tip °F (°C) | 99%Resp. Water | Time (sec) Air | L (in.) | Probe Number |
|---|---------------------|-------------------|-------------------|------------|--------------------------------------|
| General purpose for use in gases, liquids and semi-solids. Stem is 0.11" dia. and full temper stainless steel #304. Strength and design make this probe ideal for sampling foodstuff. | 300(150) | 10 | 70 | 4.5 8.5 | 8011-2005 8011-2009 |

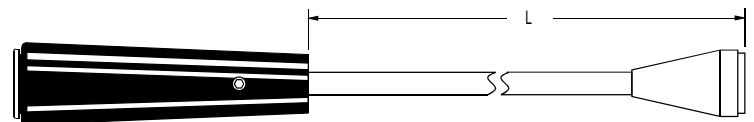
HANDLE IS 3.25" LG X .94" DIA



| | | | | | |
|--|----------|----|----|----------|--------------------------------------|
| For use in liquids and semi-solid materials with long reach. Stem steps down from 0.25" dia. to .125" dia. and is made of #304 stainless steel. Typical uses are in the beverage and food processing industries. | 300(150) | 12 | 90 | 18 36 | 8011-2018 8011-2036 |
|--|----------|----|----|----------|--------------------------------------|



| | | | | | |
|---|----------|----------|---------|---------------------|--|
| For use on windows, heater fins, smooth pipes, etc. The probe has a surface conforming sensing disc for fast response on most materials. Stem is of 0.25" dia. aluminum and has a .75" dia. head. Can be used on pipes down to 2" dia. Accuracy: ±0.5°F at 32.0°F and ±1.5°F at 190.0°F | 300(150) | Surfaces | | 3.5 11.5 17.5 | 8011-2304 8011-2312 8011-2318 |
| | | Metal | Plastic | | |
| | | 20 | 50 | | |



CONTACT FACTORY FOR AVAILABILITY

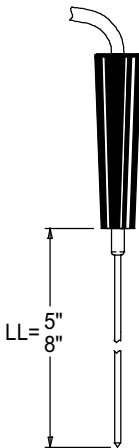
* Customer specified bend along any bendable probe stem is extra.

PERMANENT RTD-NI PROBES FOR MODELS 2300-PN & 2400-PN

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: The maximum allowable tip temperature on any of these probes is 275 °F.

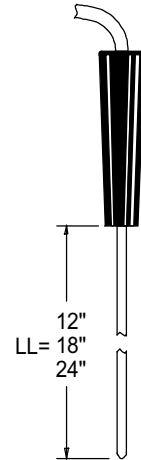
For use to sample semi-solids such as meat, ice cream, vegetables, or pre-drilled hard-frozen foodstuff. The stem is .125 dia. fully tempered stainless steel #304.



| PROBE # | CABLE LEN. |
|------------------|-------------|
| TPC1-N10L | 3 ft |
| TPC2-N10L | 5 ft |

99% Response time in oil = 12 secs.

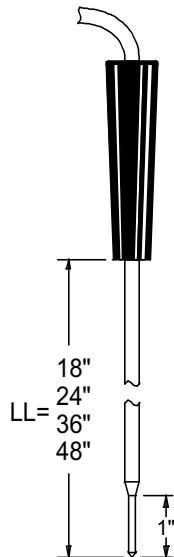
Fast responding immersion probe for use with beverages or other low viscosity mixes. Stem is made of .19 dia bendable stainless steel #304.



| PROBE # | CABLE LEN. |
|------------------|-------------|
| TPD1-N2LL | 3 ft |
| TPD2-N2LL | 5 ft |

99% Response time in oil = 18 secs.

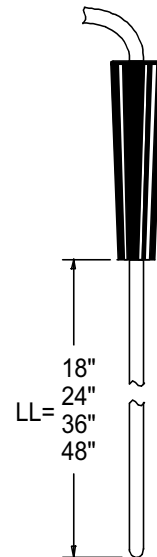
For use to probe liquids or semi-solids with long reach. Stem is made from .25 dia. bendable stainless steel #304 and steps down to .125 dia. rigid tip for easy penetration and fast response.



| PROBE # | CABLE LEN. |
|------------------|-------------|
| TPC1-N3LL | 3 ft |
| TPC2-N3LL | 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-N3LL | 3 ft |
| TPD2-N3LL | 5 ft |

99% Response time in oil = 24 secs.

ORDERING INFORMATION: See Portable Accessories page for items such as carrying case, wet bulb kit, etc. All prices listed above are F.O.B. factory or distributor warehouse. Contact distributor if listed below for assistance. Products are warranted against material or workmanship defects for a full year from date of shipment.

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