TPI Food Safety Catalog

Take the right steps with TPI Food Safety Instruments:

Instruments designed for food processing & preparation to help you meet HACCP:

Hazard Analysis and Critical Control Point Principles

- Conduct a hazard analysis
- Determine critical control points
- Establish critical limits, monitoring procedures, corrective actions, verification procedures, record keeping and documentation procedures

TPI 367D

K　　　　°F

72.4

Time **05 05**

Digital Thermometer

with Data logging

CE

TPI 381F
INFRARED THERMOMETER
S/N. 19509070012
MADE IN KOREA

-58 to 300°F/-50 to 150°C

TPI 315C

75.8 F

ON/OFF　WATERPROOF　D-H/CAL

The **367D and 341K** can be **auto field calibrated** to a system accuracy (tester & probe) of +/- 1 F.

See page 12 for details.

The **306C, 307C, 312C, 314C, 316C, and 320C** can be **auto field calibrated** to +/- 2 F.

See page 12 for details.

www.tpi-thevalueleader.com

800.368.5719

Three Year Limited Warranty on TPI Products

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367D Auto field Calibration to ± 1°F system (tester + probe)

Waterproof IP67. 0.1% basic accuracy hand held digital thermometer

The 365 and 367D digital thermometers feature:

- Selectable °C/°F • Up to 14,000 hours battery life
- Overmolded ergonomic case
- Data log with the 367D with optional A367 accessory kit

365
- **Submini connector**
  - o Type-K thermocouple

367D
- **AUTO FIELD CALIBRATION**
  Perform ice bath calibration to achieve ±1°F system (tester and probe) accuracy within the 30°F to 120°F temperature range. Calibration is easy two-step process performed with key pad, no additional tools needed.
- Optional A367 docking station and software allows data logging up to 16,000 readings with real time and logged data transfer to PC. The sample interval for logged readings can be set from 1 second up to 24 hours.
- **Lumberg connector**
  - o Thermistor
  - o Type-K thermocouple
  - o Type-T thermocouple

- **Long battery life time (low battery detect)**
- **Large LCD display**

- **Store 16 readings**
- **Real time data transfer to PC via optional USB docking station**
- **Multi use belt clip: can be uses as a wall mount**
- **Large two line LCD display**
- **Current time display**
- **Alarm clock**
- **Alarm timer**
- **Long battery life (low battery detect)**
- **Data hold**
- **Over/ under temperature alarm**
- **Field calibration**
- **Fast reading mode**

		365	367D
	Thermistor	NA	-58°F to 302°F -50°C to 150°C
Range	Type-K	-328°F to 1,112°F -200°C to 600°C	-328°F to 1,112°F -200°C to 600°C
	Type-T	NA	-328°F to 752°F -200°C to 400°C
Instrument Accuracy at 23°C		0.1% ±0.2°C / 0.4°C	
Resolution	> -100°C	0.1°C	
	≤ -100°C	1°C	
Battery Life Time (for all models)		Up to 14,000 hours (7,000 hours when PC communication is enabled 367D only)	
IP Rating		IP67	
Operating Temperature		-20°C to 50°C -4°F to 122°F	
Scale		°C/°F	
Countdown Timer		N/A	(1 second ~ 24 hour) 3 user selectable
Real Time Clock		N/A	Yes
Auto Power Off		Yes	
Over / under Temperature Alarm		N/A	Yes
Field Calibration (user calibration)		N/A	Yes (+5 °C or ±9 °F)
Fast Reading Mode		N/A	Yes
Data Logging		N/A	Yes
PC Communication		N/A	Yes
Battery		2 x LR6 size AA	

![367D Digital Thermometer with Data logging]

6.4" x 2.3" x 1.3"   0.6lbs
163mm x 58mm x33mm   272g

Applications

- Validate the temperature of incoming food product prior to accepting deliveries
- Measure food storage temperature
- Verify cooking and serving temperature
- Confirm hot and cold holding cabinet temperatures
- Measure food reheating temperatures
- Monitor frozen food thawing temperature

A367 USB Docking Station

Use with the 367D thermometer to communicate to a computer. Enables real time data to be displayed and recorded. Test data logged with the 367D can be downloaded to a PC. Includes the docking station, USB interface cable, and 367D PC interface software.

Temperature Testers for Demanding Environments

Designed for rigorous use in extreme food processing conditions.

The TPI 353 and 354 are highly durable instruments designed to perform in challenging environments where high humidity and condensation can create problems. Combine these testers with a heavy-duty probe and you have the ultimate combination to meet extreme demands.

A366 Belt Clip

Use with the 365 and 367D thermometers for secure carry on a belt. Belt clip holds the thermometer ready for use. The 365 or 367D can be used while held by the clip or can be removed from the clip and used.

A305
Protective Tilt Boot
Store your instrument face down inside boot to protect the screen. The A305 comes standard on the 353 and 354 temperature testers.

Lumberg Thermistor Test Caps

VX11L	0.4 F or -18 C
VX12L	32 F or 0 C
VX13L	158 F or 70 C

K-Type Thermocouple Calibrator VKF300M (see page 9)
Reliable K-type thermocouple, low battery indicator, and easy on-site thermometer calibration checking. Accuracy at 23°C is ±0.5°C or ± .9%°F.
VKC300M: Centigrade version

FEATURES	353	354
Min/Max Record	NA	YES
Data Hold	NA	YES
Selectable Res.	NA	YES
C°/F° Selectable	NA	YES
Auto Off	YES (after 20 min)	YES (after 20 min)
Open Probe Indication	YES	YES
Connector Type	Lumberg	Lumberg
IP Rating	IP 63	IP 63
Range Thermistor	-40° to 220°F	-40° to 220°F -40° to 110°C
Thermistor Accuracy	±1°F	±1.8°F, ±1°C
Range T-Type	-328° to 750°F	-328° to 750°F -200° to 400°C
Thermocouple Accuracy*	±0.3%, ±1.8°F	±0.3%, ±1.8°F
Size	41mm x 152mm x 77mm	41mm x 152mm x 77mm
Weight	278g w/boot	278g w/boot
Battery	9V	9V
*Accuracy will depend on selection of probe.		

FAQ

What are the advantages of Lumberg connectors?
Lumberg connectors are designed for the rigors of food processing environments. Advantages include:

- Strong connection - stainless steel collar holds and protects connection. Probe will not pull out of instrument without unscrewing the collar.
- Waterproof stainless steel will not rust and is ideal for wet, humid conditions.
- Lumberg connectors are manufactured following ISO9000 quality control guidelines.

3

Hand-Held Digital Thermometer

Affordable. Dependable. Easy to Use.

Verify calibration with our special 351 test caps. Surface, liquid, or air thermistor probes can be used with the 351 to measure temperature between -40° and 220°F.

351
- **Single button operation**
- **Accuracy** with Thermistor is ±1° F (32° to 158°)
- **Verify Calibration** Optional test caps available
- **Water Resistant** Measurements can be taken in any environment
- **Automatic Power Off** 3-minute shut down with inactivity
- **Open Probe Indicator** "Open" is displayed when probe is open or not attached.

SPECIFICATIONS

IP Rating	IP63
Thermistor Probe Range	-40° to 220°F
Centigrade Version	Model 351X

351F1 Kit
Get the whole works!
The 351F1 Kit comes complete with instrument, A304 protective rubber boot and an FX12B, liquid immersion probe.

A304
Protective Tilt Boot
Enjoy upright viewing. Built-in stand also frees the hand. Store your instrument face down inside boot to protect the screen. The A304 comes standard on the 340, 341, and 351 temperature testers

351 Thermistor Probes with Bipolar Connector
Surface Probe CX13B
Liquid Immersion Probe FX12B
Liquid Immersion Probe w/8" stem...............FX13B
Air Probe GX15B
3-Foot Extension lead EX11B

Bi-Pole Thermistor Test Cap
VX11B....................-18°C or -0.4F
VX12B....................0°C or 32°F
VX13B....................70°C or 158°F

340
one button operation

341K AUTO FIELD CALIBRATION

Perform ice bath calibration to achieve ±1°F system tester and probe accuracy within the 30°F to 120°F temperature range.
Calibration is easy two-step process performed with keypad, no additional tools needed.

How do I field calibrate the 341K digital thermometer?
1. Connect the temperature probe to the 341K.
2. Press and hold down the **MIN/MAX** and **HOLD** buttons and turn on the 341K.
3. Insert the temperature probe into an ice bath and allow the reading to stabilize.
4. Press the **HOLD** button and calibration is complete.

What is the difference between a thermistor and a thermocouple?
Thermistors are more accurate, but have a much shorter temperature range than thermocouples.

What are the advantages of Sub-Mini connectors?
Sub-mini connectors are quick and easy to use, simply push in and pull out. A wide variety of economical probes are available with sub-mini connectors, enhancing the versatility and affordability of the temperature tester.

What can test caps be used for?
Test caps provide accuracy confirmation of your TPI thermistor input thermometer

Features	340	341K
Min/Max Record	NA	YES
Selectable Res.	NA	YES
C°/F° Selectable	YES	YES
Auto Off	YES (after 20 min)	YES (after 20 min)
Connector Type	Sub Mini	Sub Mini
Range K-Type	-58° to 1832°F	-58° to 2462°F
	-50° to 1036°C	-50° to 1350°C
Basic Accuracy*	±0.5% + ±1.8°F	±0.3%, ±1.8°F
IP Rating	IP63	IP63
Size	41mm x 152mm	41mm x 152mm
	x 77mm	x 77mm
Weight	278g w/boot	278g w/boot
Battery	1.5V (2)	9V
*Accuracy will depend on selection of probe.		

the 340 and 341K digital thermometers come with A304 tilt stand protective boot and no probes

Pocket Digital Thermometers

All "C" version digidials can be auto field calibrated in 32º F ice water to ± 2º F

-58 to 300°F/-50 to 150°C

75.8°F
316C ON/OFF WATERPROOF D-H/CAL

Models 316C Penetration-Tip (Photo)
318 Chisel-Tip
319 Contact-Tip
320C Small diameter (1.6mm)
Penetration-Tip

Models 306C Penetration tip comes with A306
307C Needle-tip comes with A306

A306
Protective rubber boot for the 306C, 306CX, 307C, and 307CX.

-58 to 300°F/-50 to 150°C

75.5°F
312C

Models 312C Penetration-Tip | 326 Needle-Tip
314C Penetration-Tip | 329 Contact-Tip
323 Chisel-Tip

Probe Tips	**Penetration**	**Chisel**	**Contact**	**Needle**
	Use for immersion and air; however air response time will be slower than if using an actual air probe.	Need chisel tip for surface temperatures. Penetration and/or air tips will not give an accurate surface reading.	Measures three times faster than chisel tip.	Use for immersion and semi-solids. Low mass, quick response, small diameter penetration

Pocket Digital Thermometers
Features and Specifications

FEATURES	306C*	307C*	312C	314C	316C	318	319	320C	323	326	329
Water Resistant	•	•	•		•	•	•		•	•	•
Water Proof				•				•			
Tip Type	penetration	needle	penetration	penetration	penetration	chisel	contact	penetration	chisel	needle	contact
Stem Length	4.9	4.9	4.9	4.9	2.8"	2.8"	2.8"	2.8"	4.9"	4.9"	4.9"
Data Hold	•	•	•	•	•	•	•	•	•	•	•
°C/°F Switchable			•	•	•	•	•	•	•	•	•
Range											
Min. Temp°F	-40°F	-40°F	-58°F	-58°F	-58°F	-58°F	-58°F	-58°F	-58°F	-58°F	-58°F
Min. Temp°C			-50°C	-50°C	-50°C	-50°C	-50°C	-50°C	-50°C	-50°C	-50°C
Max. Temp°F	300°F	300°F	300°F	300°F	300°F	300°F	300°F	300°F	300°F	300°F	300°F
Max. Temp°C			150°C	150°C	150°C	150°C	150°C	150°C	150°C	150°C	150°C
Accuracy											
°F	1%	1%	±2°F	±2°F	±2°F	±2°F	±2°F	±1°F (32 to 158°F) ±2°F (<32 and >158)	±2°F	±2°F	±2°F
°C			±1°C	±1°C	±1°C	±1°C	±1°C	± 0.5°C (0 to 70°C) ± 1°C (<0 and >70°C)	±1°C	±1°C	±1°C
Resolution	0.1°F	0.1°F	0.1°F/C	0.1°F/C	0.1°F/C	0.1°F/C	0.1°F/C	0.1°F/C	0.1°F/C	0.1°F/C	0.1°F/C
IP Rating	NA	NA	IP63	IP67	IP63	IP63	IP63	IP67	IP63	IP63	IP63
Auto Off	•	•	•	•	•	•	•	•	•	•	•
Sample Time	1 sec	1 sec	1 sec	1 sec	1 sec	1 sec	1 sec	1 sec	1 sec	1 sec	1 sec
Battery All TPI Digital Thermometers use an LR44 battery											

"C" versions also available 306CX and 307CX; both units come with A306 protective rubber boot.

How do I check calibration of my pocket thermometer?
You put the thermometer in a solution of crushed ice and water, swirl the water around, and it should read close to 32°F.

Does the whole stem need to be immersed to get an accurate reading?
The sensor is in the tip of the probe and needs to be 1/2 inch into what you are measuring.

How do I calibrate the "C" version digital thermometer?
1. Insert the stainless steel shaft of the thermometer into an ice water bath and allow the reading to stabilize
2. Press and hold the D-H/Cal button for approximately 8 seconds until "CAL" is displayed. Calibration is complete.

Contact/Surface Probe Applications (C)

- Measure griddle temperatures to assure correct cooking temperatures.
- Check frozen food to assure proper storage temperatures.
- Measure temperatures between package to ensure proper quality control.
- Check any surface for correct process control temperatures.
- Measure superheats on condensers.
- Measure griddle temperatures.
- Measure machinery or mold temperatures with a surface probe.
- Measure pipe temperatures in any industrial application.

Penetration / Immersion Probe Applications (F)

- Check internal food temperatures to assure quality control.
- Measure deep fat fryers with a high temp immersion probe.
- Measure liquids and semi-solid temperatures in food processing applications.
- Use a reduced tip probe for quicker response times where time is crucial to the process.

Air Probe Applications (G)

- Measure air temperatures in duct work.
- Measure air temperature coming from diffusers while Trouble-shooting heating and air conditioning systems.
- Measure flame temperatures to trouble-shoot industrial heating applications.
- Calibrate thermostats using an ambient air probe.

Probe Type

F: Penetration/Immersion
C: Contact/Surface
G: Air/Gas

Sensor Type

K: Type K-thermocouple
T: Type T-thermocouple
X: Thermistor (PST)

Connector Type

M- Sub-miniature
L- Lumberg connector
B- Bipole

F   K   21   M

Sequential Number

Probe Tips

Penetration / Immersion (F)

20 Pointed penetration	24 Rounded Immersion	28 Alligator Immersion
21 Tapered penetration	26 Corkscrew penetration	22 Chisel penetration

Contact/Surface (C)

30 Flat disk (Thermistor)	34 Between pack	36 Heavy duty spring
32 Ribbon		

Air/Gas (G)

40 Air (Thermistor)	44 Hooded	48 Caged with rack clip
42 Beaded thermocouple	46 Caged	

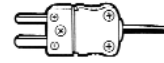**Sub-Mini Connector**   **Lumberg Connector**   **Bipolar Connectors**

K-Type Thermocouple Probe with Sub-Mini Connector
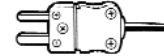
Model # Description	Application	Range°F°C		Probe tip	Dimensions	Insulation Material
CK11M Contact surface probe with ribbon sensor Water proof	Surface Temperatures Grills	-58° to 500°F -50° to 250°C		32	Stem Length: 4"(102mm) Diameter: .13" (3.2mm) Lead Length: 39.4" (1M) IP Rating: N/A	Polyurethane
CK14M Right angle heavyduty contact surface probe	Contact temperatures on flat and uneven high temperature surfaces	-58° to 1202°F -50° to 650°C		36	Stem Length: 4"(102mm) Diameter: .13" (3.2mm) Lead Length: 39.4" (1M) IP Rating: N/A	Polyurethane
CK17M Contact surface probe, 45 degree angle	Contact temperatures on flat and uneven surfaces	-40° to 500°F -50° to 250°C		32	Stem Length: 6" (152mm) w/90° bend Diameter: 0.6" (14mm) Lead Length: 39.4" (1M) IP Rating: N/A	Polyurethane
CK18M Wide contact surface probe	Restaurant Grills	-58° to 500°F -50° to 250°C		32	Stem Length: 4" (102mm) w/45° bend Diameter: 0.3" (7.5mm) Lead Length: 39.4" (1M) IP Rating: N/A	Polyurethane
CK22M 45° Contact surface probe with ribbon sensor	Surface Temperatures Grills	-58° to 500°F -50° to 250°C		32	Stem Length: N/A Diameter: 2.36"(60mm) Lead Length: 39.4"(1M) IP Rating: N/A	Polyurethane
FK11M Pointed penetration probe	General Purpose Penetration	-58° to 500°F -50° to 250°C		22	Stem Length: 4.5"(114mm) w/45° bend Diameter: .5"(12.7mm) Lead Length: 39.4"(1M) IP Rating: N/A	Polyurethane

REFER TO THE TPI WEBSITE FOR ADDITIONAL OR OEM PROBE OPTIONS

K-Type Thermocouple Probe with Sub-Mini Connector

Model # Description	Application	Range°F°C		Probe tip	Dimensions	Insulation Material
FK12M Heavy duty Penetration Waterproof	Deep fat fryers and food processing	-58° to 500°F -50° to 250°C		21	Stem Length: 11.8"(300mm) Diameter: .25/.10" (6.4/2.5mm) Lead Length: 39.4" (1M) IP Rating: 67	Polyurethane
FK14M Chisel tip penetration probe	General purpose penetration into semi-solids and liquids	-40° to 1562°F -40° to 850°C		20	Stem Length: 8" (203mm) Diameter: 0.15" (3.75mm) Lead Length: 39.4" (1M) IP Rating: 67	Polyurethane
FK15M Tapered end for food penetration	Food Penetration	-58° to 500°F -50° to 250°C		20	Stem Length: 3.75"(80mm) Diameter: .06" (1.6mm) Lead Length: 39.4" (1M) IP Rating: 67	Teflon
FK21M Tapered tip chisel penetration probe waterproof	Food Penetration	-58° to 500°F -50° to 250°C		21	Stem Length: 4"(101.6mm) Diameter: .13"/.06" (3.2/1.6mm) Lead Length: 39.4" (1M) IP Rating: 67	Polyurethane
FK22M Oven food probe	Food Processing Testing food temperatures during cooking	-58° to 500°F -50° to 250°C		21	Stem Length: 4"(101.6mm) Diameter: .09/.06" (3.2/2.5mm) Lead Length: 39.4"(1M) IP Rating: 67	Teflon
FK23M Rack clamp probe	Dishwasher Tests	-40° to 950°F -40° to 510°C		28	Stem Length: N/A Diameter: N/A Lead Length: 177" (4.5M) IP Rating: 67	Teflon
FK25M Flat sensor pack probe	Between Pack	-40° to 400°F -40° to 204°C		34	Stem Length: NA Diameter: NA Lead Length: 39.4" (1.2M) IP Rating: 67	Polyurethane
FK27M Waterproof Penetration probe	Food processing	-58° to 500°F -50° to 250°C		21	Stem Length: 11.8" (300mm) Diameter: .25/.10" (6.4mm/2.5mm) Lead Length: 39.4" (1M) IP Rating: 67	Polyurethane
FK30M Long stem heavy duty T-handle penetration probe	Heavy duty penetration into semi-solids and liquids tapered shaft resist bending	-58° to 500°F -50° to 250°C		22	Stem Length: 24" (609.60mm) Diameter: 0.38" (9.5mm) Lead Length: 39.4" (1M) IP Rating: 67	Polyurethane
FK32M Long stem heavy duty T-handle penetration probe	Heavy duty penetration into semi-solids and liquids tapered shaft resist bending	-58° to 500°F -50° to 250°C		24	Stem Length: 18" (457mm) Diameter: 0.37"/0.15" (9.5mm/3.76mm) Lead Length: 39.4" (1M) IP Rating: 67	Polyurethane
GK13M Beaded probe w/ FDA approved insulation	General purpose Air	-40° to 400°F -40° to 204°C		42	Stem Length: N/A Diameter: 24 gauge Lead Length: 48" (1.2M) IP Rating: N/A	Teflon
GK18M Armored probe	Special hanging clip for ovens. Air.	-40° to 586°F -40° to 308°C		48	Stem Length: N/A Diameter: N/A Lead Length: 39.4" (1M) IP Rating: N/A	SS*
FK13M Pointed tip penetration probe for HK11M handle or with any Sub-mini "K" input connector.	General purpose penetration into semi-solids and liquids	-40° to 1562°F -40° to 850°C		20	Stem Length: 8" (203mm) Diameter: 0.15" (3.75mm) Lead Length: N/A IP Rating: 67	N/A
GK16M General purpose caged air probe for use with HK11M handle or with any Sub-mini "K" input connector.	Caged exposed junction for fast response in air	-40° to 500°F -40° to 260°C		46	Stem Length: 8" (203mm) Diameter: 0.26" (6.5mm) Lead Length: 39.4" (1M) IP Rating: N/A	N/A
HK11M Handle for use with K-type interchangeable probe tips	Use with FK13M, CK15M, and GK16M	N/A		N/A	Stem Length: N/A Diameter: N/A Lead Length: 39.4" (1M) IP Rating: N/A	Polyurethane

REFER TO THE TPI WEBSITE FOR ADDITIONAL OR OEM PROBE OPTIONS

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K-Type Thermocouple Probe with Lumberg connector
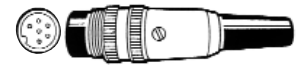
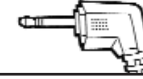| Model # Description	Application	Range°F°C		Probe tip	Dimensions	Insulation Material
CK17L Contact surface probe, 45 degree angle	Contact temperatures on flat and uneven surfaces	-40° to 950°F -40° to 510°C		32	Stem Length: 4" (102mm) w/45° bend Diameter: 0.3" (7.5mm) Lead Length: 39.4" (1M) IP Rating: N/A	Polyurethane
CK22L Fast response contact surface probe, 45 degree angle swivel head sensor	Contact temperatures on flat and uneven surfaces	-58° to 932°F -50° to 500°C		32	Stem Length: 4.5" (114mm) w/45° bend Diameter: 0.6" (15mm) Lead Length: 39.4" (1M) IP Rating: N/A	Polyurethane
FK11L Pointed penetration probe	General purpose penetration into semi-solids and liquids	-58° to 500°F -50° to 250°C		2	Stem Length: 4" (102mm) Diameter: 0.13" (3.2mm) Lead Length: 39.4" (1M) IP Rating: N/A	Polyurethane
FK21L Tapered tip chisel penetration probe waterproof	Food Penetration	-58° to 500°F -50° to 250°C		21	Stem Length: 4" (101.6mm) Diameter: .13/.06" (3.2/1.6mm) Lead Length: 39.4" (1M) IP Rating: 67	Polyurethane
FK22L Oven food probe	Testing food temperatures during cooking	-58° to 500°F -50° to 250°C		20	Stem Length: 4"(101.6mm) Diameter: .09/.06" (2.4/1.6mm) Lead Length: 47.2" (1.2M) IP Rating: 67	Teflon
FK23L Immersion / Penetration probe no handle or lead	Food Penetration	-58° to 500°F -50° to 250°C		21	Stem Length: 3.9"(100mm) Diameter: .13/.09" (3.2/2.2mm) Lead Length: N/A IP Rating: 67	NA
FK25L Flat snsor pack probe	Between pack	-40° to 400°F -40° to 204°C		34	Stem Length: N/A Diameter: N/A Lead Length: 47.2" (1.2M) IP Rating: 67	Teflon
FK26L Immersion / Penetration probe	Food Penetration	-58° to 500°F -50° to 250°C		20	Stem Length: 4"(101.6mm) Diameter: .09/.06" (2.4/1.6mm) Lead Length: 39.4" (1M) IP Rating: 67	Polyurethane

T-Type Thermocouple Probe with Lumberg Connector

Model # Description	Application	Range°F°C		Probe tip	Dimensions	Insulation Material
FT11L Needle probe	Weiner probe for food processing	-148° to 500°F -100° to 250°C		20	Stem Length: 4"(101.6mm) Diameter: .13"(3.2mm) Lead Length: 39.4" (1M) IP Rating: 67	Teflon
FT15L Needle probe	Weiner probe for food processing	-148° to 500°F -100° to 250°C		20	Stem Length: 3.15"(80mm) Diameter: .06"(1.6mm) Lead Length: 39.4" (1M) IP Rating: 67	Teflon
FT21L Tapered end for food penetration waterproof	Food penetration	-148° to 500°F -100° to 250°C		21	Stem Length: 3.75"(95.3mm) Diameter: 3.2/1.6mm Lead Length: 39.4" (1M) IP Rating: 67	PVC
FT22L Oven food probe	Testing food temperature during cooking	-40° to 500°F -50° to 250°C		20	Stem Length: 3.93"(100mm) Diameter: .13" (3.2mm) Lead Length: 98.4" (2.5M) IP Rating: 67	Teflon
FT23L Rack clamp probe	Dishwasher Tests	-40° to 950°F -40° to 510°C		28	Stem Length: N/A Diameter: N/A Lead Length: 177.2" (4.5M) IP Rating: N/A	Teflon
FT24L Heavy duty T-handle long stem penetration probe	General purpose penetration into semi-solids and liquids	-40° to 500°F -40° to 250°C		21	Stem Length: 24" (610mm) Diameter: 0.37"/0.15" (9.5mm/3.76mm) Lead Length: 39.4" (1M) IP Rating: 67	Polyurethane
GT13L Beaded probe with FDA approved insulation	General Purpose. Air	-148° to 500°F -100° to 250°C		42	Stem Length: NA Diameter: NA Lead Length: 47.2" (1.2M) IP Rating: 67	Teflon
GT19L Oven clamp probe	Special hangingClip for ovens. Air.	-40° to 500°F -40° to 510°C		48	Stem Length: NA Diameter: NA Lead Length: 39.4" (1M) IP Rating: 67	SS

REFER TO THE TPI WEBSITE FOR ADDITIONAL OR OEM PROBE OPTIONS

Thermistor Probe with Lumberg Connector

Model # Description	Application	Range°F°C		Probe tip	Dimensions	Insulation Material
FX11L Liquid immersion probe	General Purpose, Liquid	-40° to 300°F -40° to 150°C		24	Stem Length: 4"(102mm) Diameter: .13" (3.2mm) Lead Length: 39.4" (1M) IP Rating: 67	PVC

Thermistor Probe with Bipolar Connector

Model # Description	Application	Range°F°C		Probe tip	Dimensions	Insulation Material
CX13B Surface flat disk probe	Surface	-40° to 300°F -40° to 150°C		30	Stem Length: 3.15"(80mm) Diameter: .3" (7.5mm) Lead Length: 15.7" (0.4M) IP Rating: N/A	PVC
FX12B Liquid immersion probe	General Purpose	-40° to 300°F -40° to 150°C		24	Stem Length: 3.15"(80mm) Diameter: .13" (3.2mm) Lead Length: 15.7" (0.4M) IP Rating: 67	PVC
FX13B Liquid immersion probe	General Purpose	-40° to 300°F -40° to 150°C		24	Stem Length: 8"(203mm) Diameter: .13" (3.2mm) Lead Length: 15.7" (0.4M) IP Rating: 67	PVC
GX15B Shielded air probe	Air	-40° to 300°F -40° to 150°C		44	Stem Length: 3.15"(80mm) Diameter: .13" (3.2mm) Lead Length: 15.7" (0.4M) IP Rating: N/A	PVC
EX11B extension lead male to female	Thermistor probes	N/A		NA	Stem Length: N/A Diameter: N/A Lead Length: 36" (0.9M) IP Rating: N/A	PVC

REFER TO THE TPI WEBSITE FOR ADDITIONAL OR OEM PROBE OPTIONS

Bi-Pole Thermistor Test Cap

VX11B	-18°C or -0.4°F
VX13B	70°C or 158°F

Lumberg Thermistor Test Caps

VX11L	0.4 F or -18 °C
VX12L	32 F or 0 °C
VX13L	158 F or 70 °C

TDS / Salt Meter 390

Measure the concentration of dissolved TDS/salt (NaCl)

Hanger Ring

LCD Display Part

Hold (TEST) switch

Measurement Selection (MODE) Switch

Power (ON/OFF) Switch

Sensor Probe

Sensor Part

Supporting Spoon (x2)
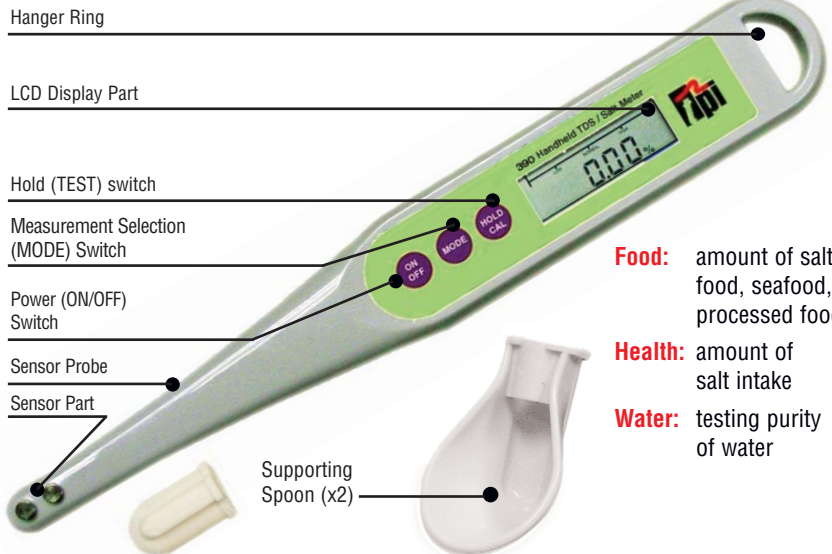
Food: amount of salt in food, seafood, or processed foods

Health: amount of salt intake

Water: testing purity of water

FAQ

What is TDS?

Water contains a variety of minerals and salts such as calcium, magnesium, carbonate, chloride, nitrate, etc. TDS is the sum of these amounts.

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Food Applications:
Grill & Surface emperatures, Holding Cabinets, Serving Temperatures, and Storage Temperatures

Close-Focus, Pocket-Size Infrared Thermometer

Instantly read surface temperatures.

1.5"W x 2.75"H

381F FEATURES

• **High accuracy ±2°F (±1°C)** within the food temperature range 32°F to 158°F (-35°C to 100°C)

380/381/381F Features

• **Easy-to-use one button operation**
• **0.1 resolution for best reading**
• **Last reading hold**
• **Soft holster pouch**
• **Large, easy to read display**
• **°C and °F selectable**
• **9V battery included**

3-YEAR LIMITED WARRANTY

155mm x 127mm x 35mm 7oz (200g)

FUNCTION	380 (w/o laser)	381(laser)	381F(laser)
Temp. Ranges	-4° to 572°F -20° to 300°C	-4° to 572°F -20° to 300°C	-31° to 572°F -35° to 300°C
Laser Sighting	No	Yes	Yes
Accuracy @ 25°C and	±(2% of reading, ±3.5°F) : whichever is greater		32°F ~ 158°F : ±2°F <32°F or >158°F: ± (2% of reading, ±3.5°F): whichever is greater
Response Time	500 milliseconds		
Emissivity	0.95 fixed	0.95 fixed	0.97 fixed
Distance to Spot Ratio	9:1		4:1
Spectral Response	7~14um		
Operating Temperature	32° to 120°F and 0° to 50°C		
Battery Type	9V alkaline		

• **Detect hot spots or leaks** by taking sample spot readings of freezers, and walk-in coolers.

• **Safely check the temperature and performance** of ovens, ranges, rotisseries, deep fryers and dishwashers.

• **Check clean dishes immediately after washing** to ensure that high enough temperature levels were achieved in the dishwasher for sanitation purposes.

What does "distance to spot ratio" mean?
The laser spot needs to be showing inside the target area. An 8:1 "distance to spot ratio" means you are measuring a 1" diameter area at a distance of 8".

How far can I measure?
Distance is unlimited. The size of the target area sets the limit on distance for accurate measurements. Example: If the area you wish to measure is 1 foot in diameter, then you will need to be within 8 feet to record an accurate temperature.

What is the smallest target I can read?
Approximately one-half inch in diameter. except 1/8 for 368

• **Minimum Spot Size 1/8**
• **Selectable Fahrenheit or Centigrade** temperature range: -7° to 248°F or -22° to 120°C
• **Compact** - Easily fits in your pocket.
• **Auto Data Hold:** Point the unit at the surface to be measured then press and hold down the ON/SET button. Temperature will be displayed in less than 2 seconds and held on the display for 10 seconds.
• **Min/Max** function displays the minimum or maximum temperature of 8 samplings in 0.5 seconds.
• **AUTO** sets the 368 into scan mode to continuously scan surface temperatures in real time. Automatically powers off after 60 minutes.
• **NOTE:** *For optimum results, close focus IR thermometers should be held a distance of 0.1 to 1.5 inches from the surface to be measured to obtain an accurate reading*

SPECIFICATIONS

Range	-7° to 248°F or -22° to 120°C
Operating Temp	32° to 104°F or 0° to 40°C
Accuracy	2% or reading or ±2°C, whichever is greater
Response Time	Less than 0.5 second
Resolution	0.1°F/C
Emmissivity	0.95 fixed
Distant to Spot Ratio	1:1.3

A385 IR Validator

Confirm the accuracy of an IR Thermometer by providing a stable temperature

• Connect a reference thermometer, like the 367, 341K, or 315C to the test port on the side of the A385.

• Insert the nose of the infrared thermometer into the validator and allow the reading to stablilze.

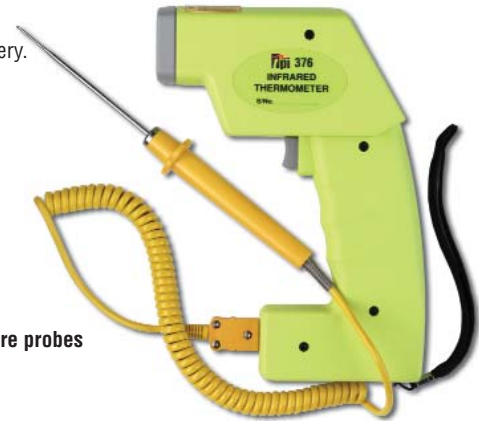• Compare the displayed reading to the reference thermometer.

Two instruments in one. Plug in optional K-type surface probe to convert non-contact IR to contact.

APPLICATIONS
• Use contact thermometer probe to obtain correct temperatures of stainless steel grills.

• Transport temperatures are made easy. Use the laser to determine surface temperature of frozen delivery. Then use the contact probe to determine internal temperature if the delivery is suspect.

FEATURES
• Laser pointer
• 8:1 distance to spot ratio
• Record function
• ° C and ° F selectable temp
• Display data hold function

• Gun-type compact design
• Back light
• Operation lock function
• Trigger switch
• 9V battery and soft pouch included

FUNCTION	376(laser)
Temp. Ranges	-58° to 950° F
	18° to 510° C
Laser Sighting	Yes
Accuracy @ 25°C and	±(2% of reading, ±3.5°F) : whichever is greater
Response Time	500 milliseconds
Emissivity	Variable Oix to 0.7
Distance to Spot Ratio	11.5 to 1
Spectral Response	7~14um
Operating Temperature	32° to 120°F and 0° to 50°C
Battery Type	9V alkaline

Refer to "K" type temperature probes pages 6, 7 and 8.

As food moves in and out of the temperature danger zone (40° to 140°F, or 4° to 60°C) during transit, storage and preparation an IR thermometer with optional contact probe is an ideal all-in-one instrument.

Indoor Air Quality (IAQ): particle counters, air flow, humidity, temperature, CO2, & CO

PRODUCT NO.	MEASUREMENTS	RANGES	FEATURES & BENEFITS	APPLICATIONS
1008 Handheld Indoor Air Quality Meter	CO2 Temperature	0 to 5000ppm -5 to 140°F (-20 to 60°C)	• Measure Carbon Dioxde (CO2) levels • Measure ambient air temperature • Log up to 48 readings in 30 minute intervals	• Check ambient CO2 levels in work and living spaces • Monitor results of control systems • Measure Ambient air temperature
1010 Handheld Indoor Air Quality Meter w/ CO and humidity measurement	CO2 Temperature Relative Humidity Dew Point Wet Bulb CO % outside air (calculated)	0 to 5000ppm -5 to 140°F (-20 to 60°C) 5 to 95% -47 to 135°F (-44 to 57°C) 3 to 135°F (-16 to 57°C) 0 to 500ppm 0 to 100%	• Calculate percent outside air to maintain acceptable CO2 levels in buildings and work spaces • Measure and display Carbon Dioxde (CO2) and Carbon Monoxide • Measure ambient air temperature • Measure relative humidity, dew point and wet bulb • Log up to 10,000 readings in 1 second to 1 hour intervals	• Check ambient CO and CO2 levels in work and living spaces • Monitor results of air control systems • Ambient air temperature and Humidity • Test dew point and wet bulb humidity

1008, 1010

1008
Measure and display carbon dioxide (CO2) and temperature

1010
Measure and display carbon dioxide (CO2), carbon monoxide (CO), temperature, and humidity

To learn about the entire line of TPI products visit:
www.tpi-thevalueleader.com

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