

Pocket Digital Thermometers Product Sheet

Delivering test and measurement advantages for HVAC/R professionals worldwide

Test the TPI advantage



310C FEATURE

Reverse LCD to gain best viewing angle

Insert small coin into notch and gently pry while turning head to new 180° viewing position. Shielded wires keep head and stem from separating. Head easily snaps back into original position.

APPLICATIONS

HVACR

- Ambient Air
- Calibrate Thermostats
- Vents
- Compressor Heads
- Registers

FOOD

- Grill & Surface Temperatures
- Serving Temperatures

ELECTRICAL

- Motor Temperatures
- Transformer Temperatures

Turn over for technical information and accessory part numbers.

The Value Leader™

Convenient



- **310C** shown
- Reversible head for best viewing
- Easy-to-read LCD
- Data Hold for hard to reach areas
- Auto power off

Accurate



- **312C** is waterproof for use in damp or wet environments
- Quick response
- Easy insertion into "Pete's" plugs with smallest diameter (3.1mm)
- Data Hold for hard to reach areas
- Auto power off
- **323** Chisel-Tip
- **326** Needle-Tip
- **329** Contact-Tip (no sheath)
- **330C** Chisel-Tip

Affordable

TPI 306C FEATURES

- Compact and convenient
- Easy-to-read, large LCD
- Auto power off
- Data hold for hard to reach areas
- A306 protective rubber boot offers protection from drops



- **315C** shown
- Rugged design withstands a 10' drop
- Magnetic clip perfect for air duct applications
- Waterproof
- Auto power off
- Low battery indicator
- 3.1mm diameter stem for "Pete's" plug
- **316C** same as the 315C but no Magnetic clips
- **317C*** with air tip



- **318*** with chisel tip
- **319*** with contact tip
- **320C** small diameter (1.6mm) Penetration-Tip

*Thermometer body slightly different from picture.

All "C" version thermometers feature Auto Field Calibration. to +/- 2 F accuracy in less than 10 seconds in an ice water bath.

Probe Tips	Penetration	Chisel	Air	Contact
	Use for immersion and air; 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.	Samples air temperatures three times faster than penetration or contact tips.	Measures three times faster than chisel tip.

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TECHNICAL SPECIFICATIONS AND ACCESSORIES

- Digital Multimeters
- Clamp Meters
- Hand-held Oscilloscopes
- Refrigerant & Combustible Gas Leak Detectors
- Temperature Testers
- BNC Coax Cable Connectors
- Test Leads
- Accessories

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FEATURES	306C	310C	312C	315C	316C	317C	318	319	320C	323	326	329	330C
* IP rating	63	61	67	67	67	61	65	65	67	67	67	65	67
Tip Type	penetration	penetration	penetration	penetration	penetration	air	chisel	contact	needle	chisel	needle	contact	chisel
Tip Diameter at Sensor	0.15" (3.8mm)	0.15" (3.8mm)	0.12" (3.1mm)	0.115" (2.9mm)	0.115" (2.9mm)	0.08" (1.9mm)	0.12" (3.1mm)	0.24" (6mm)	0.06" (1.6mm)	0.12" (3.1mm)	0.06" (1.6mm)	0.24" (6mm)	0.12" (3.1mm)
Stem Length	5" (127mm)	5" (127mm)	5" (127mm)	2.8" (71mm)	2.8" (71mm)	2.8" (71mm)	2.8" (71mm)	2.8" (71mm)	2.8" (71mm)	4.9" (125mm)	4.9" (125mm)	4.9" (125mm)	4.9" (125mm)
Field Calibration	•	•	•	•	•	•	•	•	•	•	•	•	•
Data Hold	•	•	•	•	•	•	•	•	•	•	•	•	•
°C/°F Switchable			•	•	•	•	•	•	•	•	•	•	•
Range													
Min. Temp°F	-40°F	-58°F	-58°F	-58°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	-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	550°F	550°F
Max. Temp°C		150°C	150°C	150°C	150°C	150°C	150°C	150°C	150°C	150°C	150°C	288°C	288°C
Accuracy													
°F	1%	±2°F	±2°F	±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	±2°F
°C		±1°C	±1°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	±1°C
Resolution	0.1°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	0.1°F/C	0.1°F/C	0.1°F/C	0.1°F/C
Auto Off	•	•	•	•	•	•	•	•	•	•	•	•	•
Sample Time	1.5sec	1.5sec	1.5sec	1.5sec	1.5sec	1.5sec	1.5sec	1.5sec	1.5sec	1.5sec	1.5sec	1.5sec	1.5sec
Battery	All TPI Digital Pocket Thermometers use an LR44 battery												

Centigrade versions 306CX

* IP Ratings

Ingress Protection (IP) ratings are developed by the European Committee for Electro Technical Standardization and specify the environmental protection an enclosure provides.

Definitions for the IP ratings TPI products carry are:

IP61 - Totally protected against dust and against vertically falling drops of water e.g. condensation

IP63 - Totally protected against dust and against direct sprays of water up to 60° from the vertical.

IP65 - Totally protected against dust and against low pressure jets of water from all directions; limited ingress.

IP67 - Totally protected against dust and protected against the effect of immersion between 15cm (6") and 1m (39").

How do I check calibration of my pocket thermometer?

Place thermometer in a solution of crushed ice and water, swirl the water around and temperature 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 whatever you are measuring.

What battery does my pocket thermometer use?

The LR44 button battery is used in TPI pocket digital thermometers.

Auto field calibrate in ice water to achieve +/- 2°F accuracy



Easy to follow procedure:

1. Fill a plastic or metal container with crushed ice and add clean water to a depth of at least 4 inches. Stir the ice and water for 2 to 3 minutes prior to performing calibration to ensure the water is completely chilled. Make certain there is plenty of ice in the mixture and always use clean water. Distilled water works well. The temperature of an ice bath is approximately 32°F (0°C).

2. Insert the stainless steel shaft of the C series thermometer into the ice bath making sure at least one inch of the tip is immersed. Allow the reading on the thermometer to stabilize.



3. Press and hold the D-H/CAL button for approximately 8 seconds until "CAL" is displayed. "CAL" will display for approximately 2 seconds and then the C series thermometer will return to normal operation. Calibration is complete.