

# TP2C






The TP-2 of the early 1980s became a long time favorite of many petroleum inspectors. It was the first portable electronic thermometer, PET, to challenge the long reign of the cup case thermometer. Although the TP-2 was severely dated by 1990, many inspectors wanted nothing else despite newer models by ThermoProbe and various competitors. Because the US market demanded the return of the venerable black box, ThermoProbe has put its newest circuit and software design into the old familiar form.

The TP-2C employs the proven RTD design that has been used in the TP-7 and TP-8 for many years. Where old mechanical switches were vulnerable to damage and liquid penetration, a sealed industrial quality overlay now provides a user interface that is easy to use with gloves. A sealed, heavy gauge powder coated aluminum enclosure replaces the vulnerable plastic case and protects the circuit board and large LCD from penetration by impact, water and reactive liquids.

The new TP-2C circuit board is an evolutionary step up from our highly accurate, reliable and successful TL-1 laboratory thermometer. The Power Button's primary function powers the instrument for intervals of about 20 minutes since the last button was accessed. The Power Button can also be used to conserve power and clear the memory, or to make adjustment while in calibration mode. A simple menu operation is displayed by holding the Function Button **f**, and alternately functions to allow adjustments in the calibration mode. Arrows on the left side of the display show the direction of the temperature reading and whether stability has been reached. At the user's discretion stabilized temperatures can be logged at numerous liquid levels for a running average and later displayed for the user's documenting purposes. But this feature never interferes with simply getting an accurate temperature reading.

To endure the environment and be intrinsically safe, the TP-2C is manufactured of materials, which are both immune to petrochemicals and are non-sparking. The enclosure is made of aluminum with a thickness of 0.080 inches. As with all ThermoProbe instruments, the probe assembly is constructed with a very flexible, static-dissipating, non-stick cable, and stainless steel sensor components.

### Certifications:

	<p><b>INTRINSICALLY SAFE THERMOMETER FOR USE IN HAZARDOUS LOCATIONS. CLASS I, DIVISION 1, GROUPS ABCD Temperature Code T4</b> Conforms to ANSI/UL Std. 913 Cert. to CAN/CSA C22.2 No.157-92</p>		<p>DEMKO 05 ATEX139905X</p>		<p>II 2 G EEx ib IIB T4</p>
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### SPECIFICATIONS

Maximum Dimensions:	10"L x 4.25"H x 6.4" W
Temperature Range:	-40° to +400°F -40° to +204°C
Probe:	304 Stainless Steel, Sealant, Aramid Fiber Reinforced, FEP or PFA Cable Jacket, Coaxial Construction
Enclosure Material:	5005, 5052 0.080" Aluminum Case, Handle, Plates Acetal (Delrin) Probe Holder Polyvinylchloride Faceplate Nitrile Rubber Cable Strap & Gasket Stainless Steel Fasteners
Batteries:	2AAA Alkaline; Duracell MX2400
Accuracy:	±0.2°F from -40 to 200°F ±0.5°F from 200 to 400°F 4 Point NIST Traceable Report of Test

Specifications subject to change

### OPERATIONAL ATTRIBUTES

Easily replaceable AAA Batteries, provides an estimated \*100 hours operation. Circuit logic automatically indicates low battery condition, automatically shuts off after twenty minutes, shows temperature trend and stabilization, displays error codes for failure determination. The low power backlight for night operation is photo sensor controlled for convenience and battery conservation. In nighttime conditions the backlight illuminates the display for 5 seconds if a button is pressed once, and then the buttons function in their usual way. Celsius or Fahrenheit units with C/F indication can be easily chosen from the Function Button. User Manual explains intuitive calibration procedure that can be done through the external faceplate buttons.

### TYPICAL APPLICATIONS

Custody Transfers, Inventory, Tank, Pipeline, Barge, Ship, Railcar, Tank Truck. (Recommended Operation: API 7, Intl. Safety Guide For Oil Tankers and Terminals.)

Other Applications: Proving Systems (API 4)  
Metering Systems (API 5)  
Metering Systems (API 6)

Materials: All petrochemicals, caustic, acid, alkalis, powders. Molasses, syrups, distilled spirits.