

# TP2-C







The TP2 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 TP2 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 TP2-C employs the proven RTD design that has been used in the TP7 and TP8 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 TP2-C circuit board is an evolutionary step up from our highly accurate, reliable and successful TL1 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, 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 TP2-C 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. The probe assembly is constructed with a static-dissipating, non-stick cable, with 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><b>Warning:</b> This device must be bonded (grounded) before and during introduction into the tank and remain bonded until complete withdrawal from the tank.</p>		<p>II 2 G EEx ib IIB T4</p>
			<p>DEMKO 05 ATEX139905X</p>		

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### SPECIFICATIONS

Maximum Dimensions:	10"L x 4.25"H x 6.4" W
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:	2 AAA Alkaline; Duracell MX2400 Battery Life of approximately 100 hours Battery manufacturer's battery operating temperature range -4 to 130°F, -20 to 54°C <i>Note: Battery may not provide adequate power if ambient temperature is below 40°F, 4°C or above 130°F, 54°C</i>
Temperature:	Resolution 0.1 Range: -40 to +400°F -40 to +204°C Calibrated Accuracy: ±0.2°F from 32 to 200°F ±0.5°F from 200 to 400°F ±0.1°C from 0 to 100°C ±0.3°C from 100 to 200°C 4 Point NIST Traceable Report of Test Long-term drift not to exceed 0.05%/year Meets API requirements

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.
- Celsius or Fahrenheit units with C/F indication can be easily selected 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)
- Materials: All petrochemicals, caustic, acid, alkalis, powders. Molasses, syrups, distilled spirits.