



FUEL PROBE SYSTEM

Fuel Level Probe & Controller

Pre-wired probe + controller bundle · Five-point calibration · 0–5 V output

Item # FPS-018 (pre-wired bundle), works with 1/8 NPT outlet fitting. Last updated: June 2026

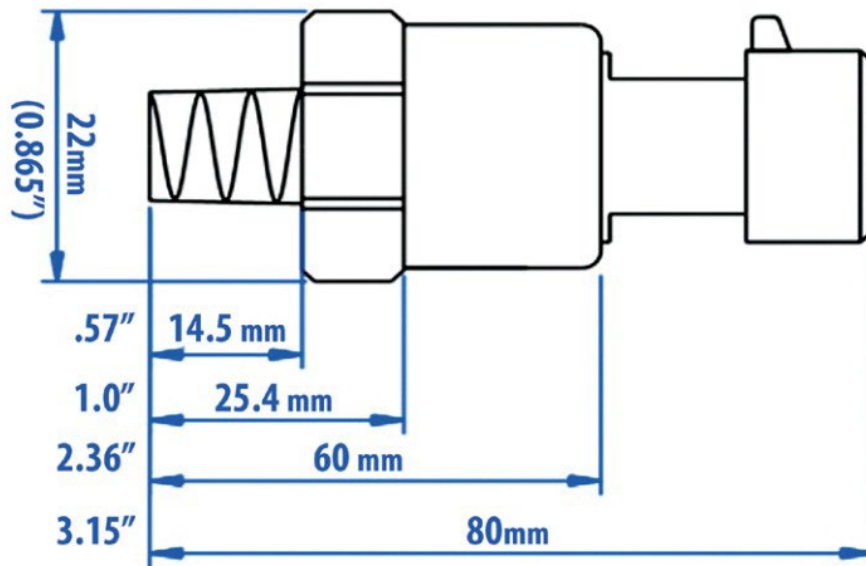
BOX CONTENTS

- Pressure-sensor fuel probe with 1/8 NPT thread, pre-wired with harness and connector.
- Controller (fuel computer).
- Aircraft wiring harness — accepts power and ground, provides output, for connection to your aircraft.
- This manual.

The RADIANT fuel level system ships as a matched, pre-wired set: a stainless-steel pressure-sensor probe and a calibrating controller (fuel computer). The probe senses fuel level; the controller conditions that signal and provides an electrical indication to your instrumentation across a range of 0 to 5 volts. **The probe is pre-wired and plugs directly into the controller — no probe-to-controller wiring is required.** The unit is not TSO'd or PMA'd. Use only in appropriate aircraft as a backup to certified instruments and pilot calculations.

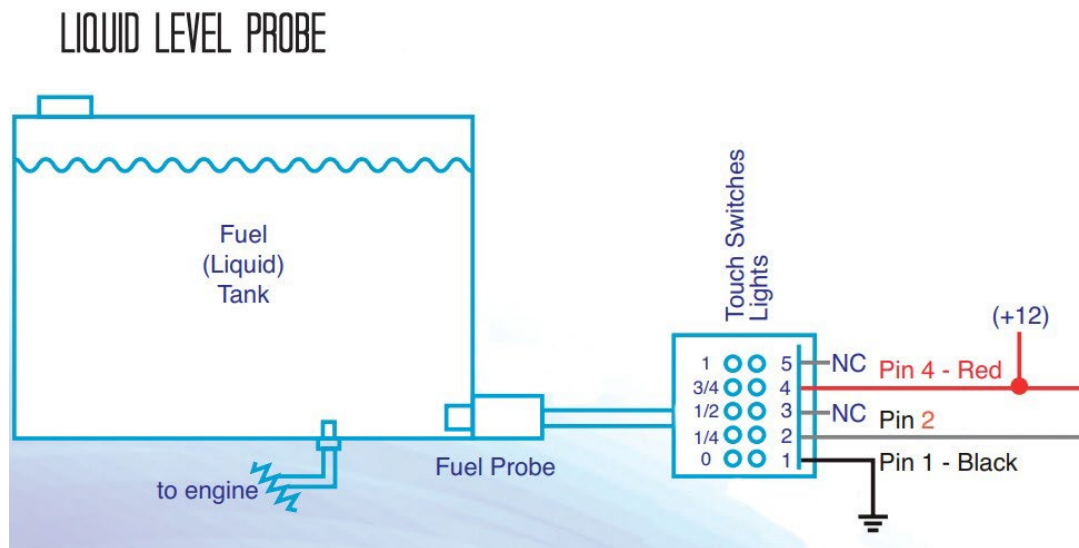
FEATURES

- Stainless steel construction, 304L.
- High precision pressure sensor, accurate +/- 0.5% absolute.
- No moving parts, based on MEMS solid-state technology.
- Compatible with any tank size or depth to 48". Options available. Long-term stability 0.5% per year.
- Operating temperature range -40 to 100 degrees C (probe only). Compatible with 9 to 16 volts input power.
- The controller accepts a 0.5 to 4.5 volt sensor input (typically under 3.0 volts in real fuel-tank installations) and provides a 0.0 to 5.0 volt output (empty / full). Built-in exceptional slosh filtering.
- Includes five point calibration for empty, 1/4, 1/2, 3/4, and full tank.
- Works best with vertical tanks. Not recommended for fast airplanes or airplanes with low dihedral.



INSTALLATION

- Install the probe in the tank using appropriate thread or tank sealer.
- Plug the probe connector into the controller. *The probe-to-controller connection is made at the factory; no probe wiring is needed.*
- Wire the controller to your aircraft as shown below. Pin 4 (red) is power and Pin 1 (black) is ground.
- The probe harness includes a shield ground (copper braid). It is not required for normal operation, but connecting it to aircraft frame or ground helps prevent ingress of RF into the sensor inputs. Ground the shield at one end only to avoid a ground loop.
- Use a 1 amp fuse or breaker on the power lead to the controller (not shown).
- Use 9 to 16 volts.
- Pin 2 (orange) out of the controller is the output to the display instrument gauge of your choice. The output is 0 to 5 volts, typical of "capacitance" style probes. Select a gauge accordingly. Do not use gauges designed for resistive or float input. They will not work.



PROGRAMMING

- **You have to program the unit!** The output will NOT reflect any real value until the unit is programmed. Program this product first.
- Press Low/High simultaneously to begin calibration before and while applying power. (All lights will briefly blink.)
- Low level switch. Depress momentarily for low level calibration.
- ¼ level switch. Depress momentarily for calibration.
- ½ level switch. Depress momentarily for calibration.
- ¾ level switch. Depress momentarily for calibration.
- High level switch. Depress momentarily for high level calibration.
- After programming the “0” LED will blink briefly, once every FOUR seconds.
- If you change fuel types, you must reprogram.

TIPS

- If the unit does not have the “dancing light” display when entering programming mode, you are not programming it. Try again.
- After programming, the output wire (pin 2) will be ZERO volts referenced to ground if the tank is empty, and FIVE volts referenced to ground if full. The voltage level goes up as the tank is filled.
- Allow two minutes between programming steps.
- Allow two minutes for output to be accurate.
- The ground on this controller **MUST BE CONNECTED** to the ground of your display gauge.

DISCLAIMERS

- Products from Radiant Technology are not designed to be used in applications where their failure would endanger safe flight or human life in any way.
- They are intended solely for use in VFR conditions. They are not certified to meet any Technical Standard Order, and are not produced under a Parts Manufacturing Authority (TSO / PMA). As a result, they are suitable only for use in experimental and ultralight aircraft, and in Light Sport Aircraft, if meeting the requirements of the respective manufacturer.

WARRANTY

- Your new Radiant Technology instrument carries a three-year warranty, from the invoice date. Please contact us at support@radiantinstruments.com should your product need warranty service. There is an additional charge for international warranty service.

RETURN / REFUND INFORMATION

- Must be returned in new, uninstalled, resalable condition within 14 days after receipt.