

RADIANT TECHNOLOGY

Radiant Fuel Gauge Capacitive or Resistive

*Capacitive version is preset to 0 / 5v empty & full
Resistive version may be programmed.*

Technical Specifications / Operation

Last updated May 22, 2024

RADIANT Technology's Gen2 instruments include fuel gauges, in both a capacitive and resistive version. The resistive version may be programmed to match your probe's resistance. The capacitive version is preset to 0 / 5v for empty and full.

The general technical specifications are:

- Sunlight readable.
- Dimmable (uses external dimming switch or potentiometer, not included).
- Designed to fit 2 ¼" instrument rectangular cutout with 2 bolts (included), or 3 1/8" standard panel cutout using adapter ring.
- Power Source: +6.5 to +14 volts, approximately 0.125 ampere. Functions with reduced screen brightness down to 4.5 volts.
- Case is black nylon with chopped carbon fiber, 3D printed.
- Accepts inputs from 2 fuel tanks.
- Resistive version may be programmed to user's probe values. Capacitive version is fixed 0 / 5v.



Fuel Gauge showing two tanks in analog and digital formats. Warning symbol also displayed.

Installation:

- Install instrument in 2 ¼" panel left side rectangular cutout using two supplied nuts / bolts. 3 1/8" installation in standard panel cutout using four supplied nuts / bolts. If the 2 ¼" left side cutout is not made, the upper and lower left corners of the screen will not be visible.
- Attach black wire (ground) to ship ground.
- Attach red wire (power) to ship power, +6.5 to +14 volts. Do not exceed 14 volts. Use appropriate fuse (1 amp) and avionics master switch for operation. Low power operation is supported to 4.5 volts, with reduced screen brightness.
- For control of dimming, optionally wire the yellow wire through a grounding switch. (Not included.) (Or use a potentiometer, with ONLY +5 volts / ground.) +5 is available via individual red wire from instrument. Leave the yellow wire unconnected for continuous full bright operation.
- Attach the Left and Right leads to your senders. White color is Right tank, Orange color is Left tank.
- For resistive senders, the Left and Right leads attach to the wiper (output) of the sender unit. The sender MUST BE GROUNDED to avionics ground, so that the gauge can determine the ohmage of the sender.

Operation:

- Turn the unit on.
- The brightness may be dimmed to night mode by grounding utilizing the external dimming switch or potentiometer (not supplied).
- The purpose of this unit is to act as a normal aircraft fuel gauge for two tanks.
- The warning symbol will illuminate when either tank is below 25%.

Setup:

- These instructions are valid for resistive versions only. Capacitive are pre-set to 0 and 5V full scale.
- For resistive versions, you will need to know the full setting ohms for your sender (for example, 10 ohms) and the empty setting ohms of your sender (for example, 180 ohms). You can do this with your ohmmeter directly at your sender unit.
- After powering the unit on normally, and after the startup sequence is completed, depress BOTH buttons for five seconds. You will enter the setup screen:



Setup Screen

- Note that the FULL LEFT is highlighted in yellow. Briefly press the UP or DOWN buttons to change the value to match what you measured.
- Hold either button down for five seconds. The value will be permanently stored, and the EMPTY value will now be highlighted.
- Adjust that value, then hold a button down for five seconds.
- Continue setting the values for the RIGHT tank.
- After the last entry is set, hold the button down for five seconds, and the screen will revert to the normal display.

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, if installed in the aircraft, 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. Ship to Radiant Technology, PO Box 20690, Wichita KS 67208.