Eaton's digital fuel probe solution updates analog technology while improving reliability, accuracy, weight reduction and lifecycle cost.

Eaton's digital fuel quantity measurement technology provides customers with a cost-effective solution to modernize older, outdated analog devices. The digital fuel probe is not only more affordable, but also lighter, more reliable, more accurate and less prone to error

THE DIGITAL ADVANTAGE

Eaton's digital fuel quantity measurement technology is a feature-rich design that resolves many problems and deficiencies found in older technologies, with these additional benefits:

Improved Self-Healing
Eaton's proprietary process detects and corrects for tank water contamination

Lightweight, Rigid Design
Lightweight construction with composite materials and high stiffness eliminates the need for installed cross-pin support.

Reduced Errors
Verified 75% reduction in analog-related errors.

Higher Accuracy
Unparalleled accuracy meets or exceeds ARINC 611 and MIL-G-26988 Class III specs.

Higher Reliability and Lower Lifecycle Cost
Eaton's digital fuel probe operates more than 1.5 million hours.

Automatic Self-Calibration
Reduces electronic and mechanical tolerance errors.

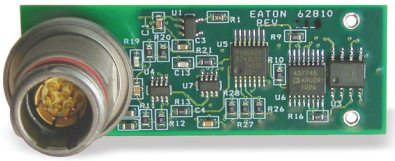
Reduced Weight
Simple twisted-pair wiring connections replace bulky shielded harnesses, with harness weight savings of up to 60% on a 36 probe system. Advanced, lightweight composite probe tubes reduce probe weight by up to 30%.

EATON
Powering Business Worldwide

NEXT-GENERATION DESIGN

CDC Chip

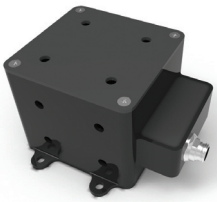
Eaton's digital fuel quantity measurement technology incorporates an integrated capacitance-to-digital converter (CDC) chip. The CDC chip has built-in temperature sensing and contamination resistance measurement, which eliminates the need for separate capacitance measurement circuitry and can adjust for variations of dielectric constant and density throughout the fuel tank.



CDC Chip

Densitometer

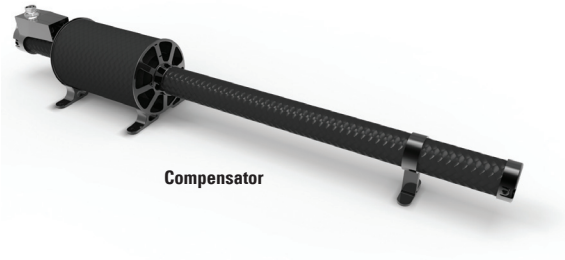
In-tank vibrating spool-type. Electrically connected to the same 4-wire bus as the probe, which eliminates the need for a dedicated harness.



Densitometer

Probe-Integrated Compensator

Probe base-mounted compensator eliminates the need for dedicated compensator wire harnessing.



Compensator

Fuel Quantity Remote Data Concentrator

Processes digital fuel-quantity data provided by the sensor and interfaces with aircraft avionic, without the use of sensitive analog electronics.

Remote Data Concentrator

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