



Fuel quantity test set

The fuel quantity test set can be used on any aircraft with capacitance probe technology.

The test set is unique in being a microprocessor controlled fuel quantity test set. It takes measurements and calculates pass/fail limits automatically and so eliminates operator error. The current test set is derived from the equipment currently in service with the UK MoD. It also allows users to download data to a PC for diagnostic purposes and trend analysis.

The test set is operated via simple menu-driven aircraft publication (AP) software and reduces test time by around 50% compared to manually driven testers.

Connection to the aircraft is made via application specific cables to a multipin connector.

Specifically designed as ruggedised, portable ground support equipment for use at operational level, the fuel quantity test set is an accurate and reliable maintenance tool, used by many defence agencies and original equipment manufacturers around the world.

Benefits

- One test set for all aircraft
- Reduces the need to de-fuel the aircraft
- Takes measurements automatically
- Calculates pass/fail limits
- Results can be downloaded for trend analysis
- Greatly reduces test time
- Tests thermistor level sensors
- Measures fuel, LOx and water systems
- CE Marked
- ATEX 95 (94/9/EC) Group 2, Category 3 approved
- Not restricted by ITAR
- Mil-Prf-28800F (class 1 equipment) compliant
- Mil-Std 461E and IEC1010 compliant
- Full training and customer support available



Technical data

Software

- Factory installed to customer specification
- Additional aircraft software upgrades by request

Capacitance measurement range

- Measures AC and DC capacitance values of tank unit probes
 - AC: 0pF to 30,000pF
 - DC: 0pF to 1,500pF
- Automatic or manual mode

Accuracy

- AC
 - +/-0.1% of reading or +/-0.1pF, whichever is greater
- DC
 - +/-0.2% of reading or +/-0.2pF, whichever is greater

Capacitance simulation range

- Simulates capacitance values of the fuel system for calibration, validation and fault finding
- Tank unit simulation
 - 11pF to 10,000pF (accurate to 0.05% of measurement range of full scale)
- Compensator simulation
 - 11pF to 1000pF (accurate to 0.05% of measurement range of full scale)

Insulation resistance measurement

- Total range 0 to 20,000 Mohms (accurate to 5% of readings; 0 to 2,000 ohms and accurate to 10% of readings; 2,000 ohms to 20,000 Mohms.)

Distance to fault nominal 1pf/foot

- 0pF to 30,000pF (accurate to +/- 2% of reading, or 1.0pF, whichever is greater)

Voltage measurement range

- Voltage; 0 to 40 Volts (accurate to +/-1% of the full scale)

Specifications

Connections

- Measurement/Simulation inputs/outputs internally multiplexed to a multipin connector for aircraft-specific cables
- Measurement of insulation and bonding resistance using BNC
- Measurement of tank, or compensator using BNC
- Simulation of tank and compensator using BNC

Dimensions

- 330mm (h) x 430mm (w) x 330mm (d)
(13in [h] x 17in[w] x 13in [d])

Weight

- 14.5kgs (32.0 lbs)

Temperature range

- Operating: -40C to +55C
- Storage: -50C to +71C

Accessories

Supplied

- Power leads
- RS232 interface lead
- Operators manual
- AC/DC converter (PCP)
- Bonding lead

Power supply

- 18V to 32V DC
- Rechargeable battery pack

Calibration

- Power On Self Test (POST)
- Continuous self calibration using very accurate internal reference
- 1-year return period for full factory calibration

Qualified to

- MIL-PRF-28800F (Class 1 Equipment)
- MIL-STD-461E
- IEC 1010
- CE

Part No. DE8491EX



Ultra Electronics Limited

ELECTRICS – Test Solutions
Kingsditch Lane, Cheltenham
Gloucestershire GL51 9PG
England

Tel: +44 (0) 1242 713512

Fax: +44 (0) 1242 221167

e-mail: testsolutions@ultra-electrics.com

www.ultra-electrics.com/testsolutions

www.ultra-electronics.com

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