

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 1, 2026

IFR AEROFLEX

IFR Aeroflex PSD90-1C Universal AC/DC Fuel Capacitance Test Set

The IFR Aeroflex PSD90-1C Universal AC/DC Fuel Capacitance Test Set is a portable, field-capable instrument for testing and calibrating aircraft fuel quantity indication systems. It measures and simulates capacitance across five distinct ranges - from 0.001 pF to 39.99 kpF - with measurement accuracy of $\pm 0.1\%$ of reading or 0.05 pF, and simulation accuracy of $\pm 0.3\%$ of reading or 0.3 pF across 300 Hz to 9,600 Hz. The instrument supports Tank Unit, Compensator, and Auxiliary simulation modes, operates on rechargeable battery or external power, and measures DC voltage via manual or auto-ranging input. Dimensioned at 10.6" x 14" x 6.5" and weighing 13 lbs, it delivers rugged portability suitable for shop, depot, and field-level troubleshooting. MIL-STD-810 Method 511.4 certified and NIST-traceable, it operates from -40°C to $+55^{\circ}\text{C}$ across altitudes to 15,000 ft. Aumictech offers NIST-traceable



MODEL

**IFR Aeroflex
PSD90-1C**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

PSD90-1C

LISTING

<https://aumictechlabs.com/products/psd90-1c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

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measurement accuracy of $\pm 0.1\%$ of reading or 0.05 pF, and simulation accuracy of $\pm 0.3\%$ of reading or 0.3 pF across 300 Hz to 9,600 Hz. The instrument supports Tank Unit, Compensator, and Auxiliary simulation modes, operates on rechargeable battery or external power, and measures DC voltage via manual or auto-ranging input. Dimensioned at 10.6" $\times$ 14" $\times$ 6.5" and weighing 13 lbs, it delivers rugged portability suitable for shop, depot, and field-level troubleshooting. MIL-STD-810 Method 511.4 certified and NIST-traceable, it operates from $-40\text{ }^{\circ}\text{C}$ to $+55\text{ }^{\circ}\text{C}$ across altitudes to 15,000 ft. Technical Specifications Capacitance Measurement: 0.000 pF to 39.99 kF with five ranges: Extra Low (0–19.999 pF, 0.001 pF resolution), Low (0–199.99 pF, 0.01 pF), Medium (200–1,999.9 pF, 0.1 pF), High (2,000–19,999 pF, 1 pF), Extended (20–39.99 kF, 10 pF); Accuracy $\pm 0.1\%$ of reading or 0.05 pF Capacitance Simulation: Tank Unit 0–11,990 pF; Compensator 0–1,190 pF; Auxiliary 10–11,990 pF; Accuracy $\pm 0.3\%$ of reading or 0.3 pF from 300 Hz to 9,600 Hz Resistance Measurement: $\pm 2\%$ of reading or 0.1 Ω ; High Extended and Mhos ranges $\pm 20\%$ DC Voltage: Manual or auto-ranging measurement Temperature Operating Range: $-40\text{ }^{\circ}\text{C}$ to $+55\text{ }^{\circ}\text{C}$; Storage $-51\text{ }^{\circ}\text{C}$ to $+71\text{ }^{\circ}\text{C}$ Humidity: 90% max non-condensing (0–28 $^{\circ}\text{C}$); 80% max to 31 $^{\circ}\text{C}$, linear decay to 50% at 40 $^{\circ}\text{C}$ Altitude: 15,000 ft (4,600 m) maximum Dimensions/Weight: 10.6" $\times$ 14" $\times$ 6.5" (26.9 $\times$ 35.6 $\times$ 16.5 cm); 13 lbs Key Features Rechargeable battery operation with 110V/230V charger Self-test on power-up; battery capacity display Annual calibration interval Tests AC or DC capacitive fuel, water, LOX, engine oil, and related systems Compatibility & Integration Boeing Spec 10-61959 Rev H compliant NIST-traceable calibration Aircraft-specific interface cables sold separately F-16 fleet version (ITAR-controlled) and universal non-F16 variants available

Features & description

From manufacturer datasheet

Features

- Tests any AC or DC capacitive fuel/water/LOX/engine-oil system (with proper interface) • Capacitance 0.000 pF to 39.99 KpF with 0.001 pF resolution on extra-low range • Capacitance simulation: TU, COMP, and AUX ranges • Resistance to 19,990 MOhm including low-voltage and Mhos modes • DC voltage measurement +/-50 VDC • DTF mode; manual or auto ranging; self-test on power-up • Battery percent display; rechargeable or 100-230 VAC external power • Compliant with Boeing Spec 10-61959 Rev H; MIL-STD-810 Method 511.4 certified • NIST-traceable calibration

PSD901C Characteristics / Specifications

PARAMETER	VALUE
Model	PSD90-1C
Manufacturer	IFR / Aeroflex / VIAVI
Order Examples	877 (01-1000-60, F-16 oriented, NSN 4920-01-510-5628); 878 (01-1000-61, universal, NSN 4920-01-528-2230)
Instrument Type	Universal AC/DC fuel capacitance test set
Size	10.6 × 14 × 6.5 in (26.9 × 35.6 × 16.5 cm)
Weight	About 13 lb
Operating Temperature	-40 C to +55 C
Storage	-51 C to +71 C
Altitude	15,000 ft (4600 m) maximum operating Capacitance Measurement
Range	+/-50 VDC; accuracy greater of +/-1% of reading or 0.02 VDC; resolution 0.01 VDC Power
Accuracy	greater of +/-2% of reading or 0.1 ohm (high extended and Mhos +/-20%) Ranges from low-voltage ohms through Mohm to 19990 MOhm; Mhos 0-1.9999 nS DTF
Extra Low	0.000-19.999 pF (0.001 pF); Low: 0.00-199.99 pF (0.01 pF)
Medium	200.0-1999.9 pF; High: 2000-19999 pF; Extended: 20.00-39.99 KpF Capacitance Simulation
Input	100-230 VAC at 45-440 Hz
Battery	rechargeable 12 VDC sealed lead acid; about 12 hours continuous at 25 C; charge about 8 hours max Operational Notes Aircraft-specific interface cables are required and sold separately. Select F-16 vs universal configuration as appropriate. Follow closed-box annual calibration procedures. Observe battery state and external-power charging guidance.
Capacitance simulation	TU, COMP, and AUX ranges

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	40 C to +55 C
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Altitude	15,000 ft (4600 m) maximum operating Capacitance Measurement
Range	+/-50 VDC; accuracy greater of +/-1% of reading or 0.02 VDC; resolution 0.01 VDC Power
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Extra Low	0.000-19.999 pF (0.001 pF); Low: 0.00-199.99 pF (0.01 pF)
Medium	200.0-1999.9 pF; High: 2000-19999 pF; Extended: 20.00-39.99 KpF Capacitance Simulation
Input	100-230 VAC at 45-440 Hz
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Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Accuracy	greater of +/-0.1% of reading or 0.05 pF
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Medium	200.0-1999.9 pF; High: 2000-19999 pF; Extended: 20.00-39.99 KpF
Capacitance Simulation	
Accuracy: greater of +/-0.3% of reading or 0.3 pF from 300 Hz to 9600 Hz	
TU: 0-11990 pF; COMP: 0-1190 pF; AUX: 10-11990 pF	
Resistance Measurement	
Accuracy: greater of +/-2% of reading or 0.1 ohm (high extended and Mhos +/-20%)	
Ranges from low-voltage ohms through Mohm to 19990 MOhm; Mhos 0-1.9999 nS	
DTF	
Range: 0 pF to 39.99 KpF; accuracy greater of +/-0.2% of reading or 1 pF	
DC Voltage	
Range: +/-50 VDC; accuracy greater of +/-1% of reading or 0.02 VDC; resolution 0.01 VDC	
Power	
Input: 100-230 VAC at 45-440 Hz	
Battery: rechargeable 12 VDC sealed lead acid; about 12 hours continuous at 25 C; charge about 8 hours max	

Operational Notes

Aircraft-specific interface cables are required and sold separately. Select F-16 vs universal configuration as appropriate. Follow closed-box annual calibration procedures. Observe battery state and external-power charging guidance.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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<https://aumictechlabs.com>

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.