

Avionics

PSD90-1C AC/DC Fuel Capacitance Test Set

AEROFLEX
A passion for performance.



Technologically advanced test set, providing multiple functions for calibration and troubleshooting

- Easy to operate / calibrate
- Closed box calibration using front panel controls - performed annually
- Lightweight / portable
- Rechargeable battery or externally powered
- Percent of battery capacity displayed
- Self-test on power-up
- Measures DC voltage
- Manual or Auto Ranging
- 2 and 3 Wire Megger
- Compliant with Boeing Spec 10-61959 Rev H
- MIL-STD-810 Method 511.4 certified
- Traceable to NIST

ADVANCED FEATURES

- **Manual Megger / DC Cap Ranging Mode.** Allows user to manually select range to speed up troubleshooting and assist in finding intermittent faults.
- **Low Voltage/Low Current Mode.** To assist user in isolating intermittent connections that other test sets may mask (fritting).
- **REV DC (DC+) Mode.** Measures capacitance from the DC+ side of the tank unit for testing and troubleshooting DC+ circuits.
- **Distance-to-Fault (DTF) Mode.** Measures capacitance between the center conductor and shield of any coaxial or shielded wire, thereby determining the "length" of the wire or the approximate distance to a break in the wire or shield.

The PSD90-1C Universal AC/DC Capacitance Test Set will test any AC or DC Capacitive Fuel, Water, LOX or Engine Oil, or other AC capacitance system. The PSD90-1C has new features that allow the user to better troubleshoot and isolate fuel system problems. Rugged in design, the unit can be used anywhere troubleshooting is required. Capable of being operated with external power, the PSD90-1C is ideal for shop or Depot Level repair of fuel system components

SPECIFICATIONS

CAPACITANCE MEASUREMENT

Range

0.000 pF to 39.99 KpF

Accuracy

Greater of $\pm 0.1\%$ of reading or 0.1 pF

Range	Measurement Range	Resolution
* Extra Low	0.000 pF - 19.999 pF	0.001 pF
Low	0.00 pF - 199.99 pF	0.01 pF
Medium	200.0 pF - 1,999.9 pF	0.1 pF
High	2,000 pF - 19,999 pF	1 pF
Extended	20.00 KpF - 39.99 KpF	10 pF

CAPACITANCE SIMULATION

Accuracy

Greater of $\pm 0.3\%$ of reading or 0.3 pF from 300 Hz to 9,600 Hz

Mode	Simulation Range
TU	0 pF - 11,990 pF
COMP	0 pF - 1,190 pF
AUX	10 pF - 11,990 pF

RESISTANCE MEASUREMENT

Accuracy

Greater of $\pm 2\%$ of reading or 0.1 Ω

High Extended and Mhos

$\pm 20\%$

Range	Resistance Range	Resolution
*Low Voltage	0.000 Ω - 19.999 Ω	0.001 Ω
Low Ohm	0.00 Ω - 199.99 Ω	0.01 Ω
Medium Ohm	200.0 Ω - 1,999.9 Ω	0.1 Ω
High Ohm	2.000 K Ω - 19.999 K Ω	1 Ω
Extended Ohm	20.00 K Ω - 199.99 K Ω	10 Ω
Low Mohm	200.0 K Ω - 1,999.9 K Ω	100 Ω
Medium Mohm	2.000 M Ω - 19.999 M Ω	1K Ω
High Mohm	20.00 M Ω - 199.99 M Ω	10 K Ω
Extended Mohm	200.0 M Ω - 1,999.9 M Ω	100 K Ω
High Ext. Mohm	2,000 MV - 19,990 M Ω	10 M Ω
*Mhos	.0000 nS - 1.9999 nS	.0001 nS

DC VOLTAGE MEASUREMENT

Range

± 50 VDC

Accuracy

Greater of $\pm 1\%$ of reading or 0.02 VDC

Resolution

0.01 VDC

DTF (DISTANCE-TO-FAULT) MEASUREMENT

Range

0 pF - 39.99 KpF

Accuracy

Greater of $\pm 0.2\%$ of reading or 1 pF

Range	Measurement Range	Resolution
Low	0 pF - 19,999 pF	1p F
High	20.00 KpF - 39.99 KpF	10 pF

TEMPERATURE

Operating

-40°C - +55°C

Storage

-51°C - +71°C

ALTITUDE

Operating

15,000 ft (4600 m) maximum

POWER REQUIREMENTS

Input

100 - 230 VAC @ 45 - 440 Hz

Battery

1 Rechargeable 12 VDC Sealed Lead Acid

Operation

12 hours continuous at 25°C

Charge Time

8 hours max

PHYSICAL CHARACTERISTICS

Size

10.6" x 14" x 6.5"

(26.9 cm x 35.6 cm x 16.5 cm)

Weight

13 lbs (5.9 Kg)

* Manual Mode Only

VERSIONS, OPTIONS AND ACCESSORIES

When ordering please quote the full ordering number information.

Ordering Numbers

	Versions
877	PSD90-1C/60-110 AC/DC Capacitance Test Set (110 V) PN: 01-1000-60 NSN: 4920-01-510-5628 Designed for F16 fleet - ITAR controlled
878	PSD90-1C/61-110 AC/DC Capacitance Test Set (110 V) PN: 01-1000-61 NSN: 4920-01-528-2230 Designed for universal non-F16 fleet

Aircraft specific interface cables are required and must be purchased separately. Contact Aeroflex Test Solutions for your application.

Standard Accessories

57934	CBL PSD90-1C charger 110 V
57939	CBL PSD90-1C charger 230 V
75538	Operations Manual PSD90-1C
38647	Connector BNCF Rev. Polarity
38648	Connector BNCFM Rev. Polarity
57929	GND Cable
57947	Interface 472844 F16 Simulator (Order Number: 877 only)

Optional Accessories

853	Precision Transfer Standard PTS-1 JPN: 01-0978-50 NSN: 6625-01-497-5942
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Extended Warranty

84388	WPSD/203C Extended standard warranty 36 months with scheduled calibration
84389	WPSD/205C Extended standard warranty 60 months with scheduled calibration

EXPORT CONTROL:

This product is controlled for export under the International Traffic in Arms Regulations (ITAR). A license from the U.S. Department of State is required prior to the export of this product from the United States.

EXPORT WARNING:

Aeroflex's military products are controlled for export under the International Traffic in Arms Regulations (ITAR) and may not be sold or proposed or offered for sale to certain countries including: Belarus, Burma, China, Cuba, Haiti, Iran, Liberia, Libya, North Korea, Somalia, Syria, Sudan, and Vietnam. See ITAR 126.1 for complete information.

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Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.