PSD90-3

Fuel Quantity Test Set

Universal AC/DC Capacitive System Testing

The PSD90-3 will test any AC or DC capacitive fuel, water, liquid oxygen (LOX), or engine oil system.

When combined with an aircraft specific interface, the PSD90-3 allows the user to test, troubleshoot and isolate fuel system issues, calibrate fuel quantity indicators, and detect contaminated fuel probes.

Developed for use in all environments the PSD90-3 is ideal for flight line testing on battery power or bench testing on external power.

Contaminated Probe Testing

The PSD90-3 provides users with two methods; Auto and Manual, for detecting and isolating contaminated fuel probes caused by particulates, water, microbial growth, or other sources of contamination.
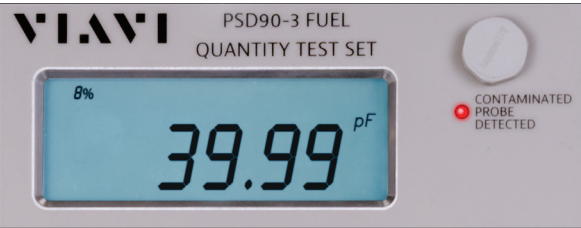

Key Features

- Measure capacitance, DC voltage, insulation resistance, and Distance to Fault (DTF)
- Simulation of capacitance for indicator testing
- Automatic contaminated fuel probe detection while performing normal capacitance tests
- Manual troubleshooting of contaminated fuel probes using the CHECK PROBE function
- Low Voltage/Low Current Mode allows isolation of intermittent or corroded connections
- Megger and capacitance manual ranging modes assist in finding intermittent faults
- REV DC (DC+) Mode measures capacitance from the DC+ side of the tank unit for complete testing of DC capacitive fuel systems
- Compatible with existing aircraft fuel quantity system interfaces
- Closed box calibration using front panel controls
- Self-test on power-up
- Rechargeable battery or externally powered
- Intrinsically safe design
- Optional OEM DC option emulates PSD30-2AF OEM DC operation and DC capacitive measurement values
- Boeing Tool Tag COM-23749 for PSD90-3AC

During normal capacitance measurements, the contaminated fuel probe detection function will automatically alert the user via a Degree of Error indication on the display and with a Contaminated Fuel Probe Detected LED on the front panel.

Once there is an indication of possible probe contamination, the user can manually test using the Check Probe function with a user-selectable Percent of Error limit which will illuminate the Contaminated Fuel Probe LED indicator if exceeded.

Aircraft Specific Interface

Each aircraft platform requires a unique interface to access the FQIS. The complexity of the fuel system determines the capability of the interface to allow for complete testing of the fuel quantity system. Contact VIAVI for the proper interface for your aircraft.

Large selection of aircraft specific interface cables available

This product is subject to the Export Administration ("EAR")(15 CFR 730-774) and may not be exported, re-exported or otherwise transferred to a foreign person, or outside the United States without authorization from the U.S. Department of Commerce.

Versions, Options and Accessories

Order Number	Description
22160648	PSD90-3 AC/DC Fuel Quantity Test Set NSN: 4920-01-731-0900
22160649	PSD90-3AC Fuel Quantity Test Set Boeing Tool Tag: COM-23749
22165792	PSD90-3DC Fuel Quantity Test Set
22165794	PSD90-3-F16 Fuel Quantity Test Set

Aircraft specific interface cables are required and must be purchased separately. Contact VIAVI for your application. PSD90-3 and PSD90-3AC are interchangeable for testing AC Capacitive fuel systems. PSD90-3 and PSD90-3DC are interchangeable for testing DC Capacitive fuel systems.

Standard Accessories	
22160651	PSD90-3 Charger Universal W2; 90-264VAC; 47-63 Hz
22166183	Operations Manual PSD90-3
57947	F-16 Interface Adapter Cable (22165794 Only)
38647	Connector BNCF Rev. Polarity
38648	Connector BNCM Rev. Polarity (qty 2)
57929	Ground Cable
Optional Accessories	
22160650	PTS-3 Calibration Standard
22165793	PSD30-2AF Interface Adapter
22166181	Maintenance Manual
Software Options*	
22166784	AC Software Option
22166785	DC Software Option
22167891	OEM DC Software Option
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)
Care Support Extended Warranty (1 year Standard)	
PSD-XX-BRONZE-2	Bronze Care, First Two Years
PSD-XX-SILVER-3	Silver Care, First Three Years
PSD-XX-SILVER-5	Silver Care, First Five Years
PSD-XX-MAXCARE-3	MaxCare, First Three Years
PSD-XX-MAXCARE-5	MaxCare, First Five Years

*Software options must be installed at our factory or by an authorized VIAVI service center.