

DPS500/DPS501 DIGITAL AIR DATA TESTERS

[MEETS RVSM ACCURACY REQUIREMENTS]

GENERAL INFORMATION

The DPS501 is a rack mountable Dual Channel Controller ideal for use as a transfer standard for calibration and certification of altimeters, airspeed ind., Air Data Computers, VSI and other Pitot-Static components or as an integral part of an Automatic Test Equipment (ATE) system. The DPS500 Air Data Test Set (pictured) is a self-contained, transportable, fully automated, user programmable Pitot-Static tester housed in a military styled enclosure. The unit includes a DPS501 controller, a Pressure/Vacuum pump, and a remote hand-terminal permitting convenient operation from the cockpit.



The DPS500 flightline version and the DPS501 rack mount version are fully automated units capable of providing simulation, testing, and precision calibration of air data components on the flightline or in a certified repair shop. All functions of the testers are fully automatic and require no manual sequencing of valves or regulators. The DPS500/501 testers were developed to meet the aviation industry's increasing standards and the need for reducing maintenance costs. Precision Vibrating element sensors achieve high accuracy read-out and control of both altitude and airspeed parameters. The high accuracy and stability (see Air Data Specifications pages 13-14 for details) of the unit qualifies the DPS500/501 for certifying aircraft for *Reduced Vertical Separation Minimum* (RVSM) operation and increases the calibration interval from 30 days to once every year.

An optional Test Program Manager interfaces the DPS500/501 with a PC/Notebook allowing the execution of procedures for carrying out tests such as FAR 43 Appendix E, FAR 91-411, RVSM or other user programmed test routines. These user-programmed tests are created in a PC based text editor using very simple commands. Test data is tabulated and can be printed for use in QC reports or instrument calibration records.

FEATURES:

- A Handheld Remote Control
- Push button data input
- A database capable of saving the limit data of up to 30 different aircraft and stored in a battery backed memory
- GO TO GROUND feature automatically and safely depressurizes both systems to ambient pressure.
- Compatible with any Centronics standard parallel interface printer of 80 or 132-column width
- PC programmable via RS 232 using optional Test Program Manager (TPM) software kit
- Available with an IEEE 488 Connector (option)
- Aircraft limit protection

MEASUREMENT DATA:

RVSM Accuracy
 Altitude up to 100K ft
 Airspeed up to 850 kits
 Airspeed up to 1000 KITS (optional)
 Vertical speed to 6000 ft/min
 Vertical speed above 6000 ft/min
 Transducers

CONTROL FEATURES

Leak Measure Facility
 Full Automatic Microprocessor Control
 Keyboard Data Entry
 Controlled Climb/Decent Rate
 Automatic "Go To Ground" Function
 Auto Intervention (For Excessive Leaks)
 Remote Control
 Remote Control (via DPS500) Line Switching Unit (Optional)
 Manually Operated LID PS/PT Manifold (Optional)

DPS500 OPTIONS & ACCESSORIES

- 101-01196 Test Program Manager Software
 101-01199 Line Switching Unit – Controlled via DPS500
- Option Description
- A- IEEE 488 For 1975 System Compatibility
 - B- IEEE 488 for SCPI Protocol Version
 - C- 28 VDC Operation
 - E- High Airspeed 1000 Knots (Special)
 - H- Altitude Encoder Option
 - I - ARINC 429 Option
 - K- Man. Oper Ps/Pt Lid Mounted Manifold

DIMENSIONS

	DPS500		DPS501	
	In.	cm.	In.	cm.
Height	13.0	33.2	10.5	26.7
Width	30.0	76.2	19.0	48.3
Depth	19.0	48.0	12.0	30.5
	lbs.	kg	lbs.	kg
Weight	77.0	35.0	29.0	13.0