

# DPST-3500M Digital Pitot Static Test Set

**“High Accuracy, Exceeds 91.411 FAR Specs, Light Weight for Flight Line Portable Inspections”**



FAA Certified Repair Station # DZMR112L  
Cage Code # 3PTA2

## General Information

The Model DPST-3500M is a precision, manually controlled, portable, flight line Digital Pitot Static Test Set. This dual channel test set is designed to provide regulated total Pitot (PT) pressure and Static (PS) pressure outputs to simulate Altitude, Airspeed, Vertical Speed, and Mach parameters.

The test set can also be used in laboratory environments to calibrate Air Data instruments and various vacuum and pressure gauges. The test set is compact, lightweight and made for harsh Flight Line conditions. Its compact size can fit in the overhead storage compartment of most commercial airliners.

## Standard Features

- Certified to perform Pitot Static FAR 91.411 Part 43 Appendix E certifications on General Aviation, Military, Rotary Wing, and Light Sport Aircrafts.
- Precision microprocessor based, with Honeywell sensors, accurate to +/- 0.020 % FS.
- Display is a sunlight readable TFT 4” inch color, Micro-Graphic Touch panel showing detailed units of measurements including Ft, M, Kts, Km/hr, Mach, Ft/min, m/min, inHg, mbar, and psia.
- Main screen displays Altitude, Vertical Speed, Airspeed, and Mach.
- Automatic Pitot and Static leak rate modes perform calculations for operator convenience.
- Hoses have self-sealing quick disconnect fittings to protect aircraft from pressure loss.
- Control valves have a lifetime warranty with a built in protection seat to prevent over tightening of precision valve stems.
- Internal pumps produce pressure and vacuum for maintenance free performance.
- Performance ranges: Altitude -1500 to 35,000 ft., Vertical Speed +/-20,000 ft./min, Airspeed 0 to 400 knots, and Mach 0 to 1.12.
- Sensors automatically perform temperature compensation for extreme flight line conditions.
- Smart AC power supply provides a wide range of input voltages: 85 to 264 VAC / 47 to 440 Hz.
- Storm Case\* is rugged and constructed to meet applicable requirements of MIL-STD-810F and FED-STD-101C and is watertight and pad lockable for theft protection.
- Calibration meets or exceeds the published National Institute Standards and Technology (N.I.S.T) specifications.
- Test set is shipped with quick disconnect fittings, 2 hoses (15ft /ea) and a power cord (6ft).
- Specifications: Exterior dimensions 17”L X 11.70” W X 6.20”H (43.2 x 29.7 x 15.7 cm) Weight 15 lbs. / 6.8 kg

\*This system is sold as a complete kit ready for use. Includes a current calibration certificate, all connections, and an operation manual.



*\*Case meets required measurements to fit into overhead compartment in commercial airlines.  
Weight 15 lbs.*

# Digital Manual Pitot Static Test Set

## DPST-3500M Performance Specifications

---

---

### Absolute Pressure Performance

#### **Static Sensor:**

Range: 0.3 to 40 inHg abs.  
Accuracy: +/- 0.020 % FS  
Overpressure: 200 % FS without damage

#### **Pitot Sensor**

Range: 0.8 to 80 inHg abs.  
Accuracy: +/- 0.020 % FS  
Overpressure: 200 % FS without damage

### Altitude Performance

Range: -1500 ft. to 35,000 ft.  
Resolution: 1 ft.  
Accuracy: ±5 ft. @ 0 ft.  
±45 ft. @ 35,000 ft.

### Rate of Climb Performance

Range: 100 ft./min. to 20,000 ft./min.  
Resolution: 25 ft./min.  
Accuracy: ±10 % of VSI Rate

### Airspeed Performance

Range: 10 to 400 Knots  
Resolution: 1.0 Knots  
Accuracy: ±2 Knots @ 20 knots  
±1 Knots @ 100 knots  
±1.5 Knots @ 400 knots

### Mach Performance

Range: 0.0 Mach to 1.12 Mach  
Resolution: 0.001 Mach  
Accuracy: 0.020 Mach + 0.1 Mach

### Pressure Medium

Dry Air

### Pressure Connections

Quick Disconnects (2 ea.)  
Safety Seal on SHIP / UUT

### Display Update Rate

Once Every 2 Tenths per Second

### Temperature Compensation Range

32°F to 122°F  
0°C to 50°C

### Sensors

Honeywell Sensors (NIST Traceable)

### Power Requirement

Input Range: 85 - 264 VAC  
Frequency Range: 47 Thru 440 Hz

### Environmental Specs

Temp. Operating: -20° C to +85° C  
Temp. Storage: -25° C to +60° C  
Humidity: 0% to 95% RH

### Warranty & Calibration

Warranty: 2 years (*parts & labor*)  
Calibration: Up to 1 year (*yearly calibration suggested*)

### Certification

Calibration / Trace to NIST  
Accuracy exceeds FAA Regulations FAR 91.411  
Specifications

### Physical Dimensions

17" L x 11.70" W x 6.20" H  
(43.2 x 29.7 x 15.7 cm)

### Weight/ Case Specification

15 Lbs / 6.8 Kg  
MIL-STD-810F • FED-STD-101C • ATA 300  
Color / Flight Line Yellow

**Accessories Include:** Protection Quick Release  
Fittings, Hoses, and operation manual.

### ORDERING INFORMATION/ OPTIONS

#### **Mfg. Part Number: DPST-3500M-XXX**

Option 1: Removable Lid  
Option 2: 28VDC power- DC  
Option 3: Altitude Encoder



DFW Instrument Corporation  
16445 Addison Road  
2nd Floor, Hangar 2  
Addison, TX 75001  
Tel. # 214-217-7600 Fax # 214-217-8307  
www.dfwinstruments.com