D.MARCHIORI

MPS30   Air Data Test Set

FEATURES

- **Accuracy ± 3 ft at sea level**
- **Exceeds RVSM accuracy requirements**
- **Lightweight hand held control; intuitive data entry supports first time users**
- **Simultaneous display of all functions; screen or menu changes not required**
- **Low maintenance design; industry exclusive 5000 hour pump guarantee**
- **Low power consumption**
- **Internal rechargeable battery option.**

PRECISION FLIGHT LINE DIGITAL AIR DATA TEST SET

The DMA MPS30 provides a complete air data test and envelope generation capability for troubleshooting and certification of aircraft pitot-static systems.

The MPS30 is easy and fast to use by both experts and first time users. A single operator in the aircraft cockpit using a multifunction hand controller with an LCD display can perform testing and troubleshooting. All air data functions are simultaneously displayed, constant screen or menu changes are not required.

The MPS30 ADTS exceeds all current requirements for test envelope generation specifications for military and commercial fixed and rotary wing aircraft including RVSM requirements. It uses precision vibrating element transducers for maximum accuracy of all altitude and airspeed parameters.

PROGRAMMABILITY
Up to 30 user programmed test routines can be entered and stored in on-board memory to cover custom or commonly used air data test requirements and airline work cards. Routines are single key executable.

SAFETY
Test set and instruments under test are protected by key MPS30 design features.
A pressure condition of Ps greater than Pt is prevented in both manual and automatic operation. With loss of power the test set circuit is safely isolated and can be manually vented preventing instruments and test set damage. Pre-set factory or user programmed safe limit factors prevent damage of instruments under test. Universal power supply prevents connection mistakes. The hand controller or other input devices can be switched during testing without loss of control.

MULTIPLE CIRCUIT ISOLATION
The MPS30 can be optionally configured to control isolation of up to four static and four pitot circuits, remotely controlled using the hand controller.

CALIBRATION
Calibration can be performed quickly and simply by software adjustment of four coefficients. No mechanical adjustments are required. Calibration factors are password protected.

MPS30 STANDARD SPECIFICATIONS

Operating temperature range: -5°C to +50°C, Storage: -20°C to +70°C
Control capability on load volumes (cu. in.) - Static: 0 to 250, Pitot: 0 to 100.
(*) abbreviations: C = civil; M = military.

Parameter	Range (*)		Resolution		Accuracy	
	Measure	Control	Measure	Control	Measure	Control
Altitude(ft)	-2,000 +80,000	-2,000 +65,000 (80000 ext pump)	1	1	±3 @ SL ±5 @ 30,000 ±20 @ 60,000	±2
Altitude slew rate (ft/min)	C: 0 to 6,000 M: 0 to 30,000	C: 0 to 6,000 M: 0 to 30,000	25 > 1000 5 < 1000	25	±10 ±1% of reading	±2%
Airspeed (kt) Ultra Low Speed funct.	C: 10 to 830 M: 20 to 1,000 ULS: 2 to 200	C: 10 to 830 M: 20 to 1,000	1 < 50 0.1 > 50 ULS:0.1 > 20	0.1	±0.5 @ 50 ±0.1 @ >500 ULS:±0.001 inHg	±1
Mach No.	0 to 4	0 to 4	0.001	0.001	< 0.002	±0.002
Airspeed slew rate (kt/min)	0 to 700	0 to 700	10	10	±10 ±1% of reading	±5%

FUNCTIONS

- Pressure/vacuum generation
- Automatic leak check
- Controlled venting to ambient
- Altitude/airspeed input
- Static/dynamic/total pressure input
- Altitude/ Airspeed rate input
- Mach Number input
- Plus:
- EPR generation
- TAS temperature correction
- Offset correction
- Automatic leak test
- Audible indication when approaching set point

DISPLAY AND KEYPAD

Integral display and keypad in splashproof and
shock protected hand-held terminal.
LCD with backlighting displays all test parameters.
Control cable   15 m (50 ft)

CALIBRATION

One year interval, performed using software

PHYSICAL SPECIFICATIONS

Weight: 33 kg (70 lb.)
Dimensions: L 590, W 405, H 510 mm
               (23.2" x 16" x 20")

ENVIRONMENTAL

Splashproof and shockproof
CE compliant

POWER SUPPLY

Universal power supply: 90-240 Vac; 50-400 Hz.

WARRANTY

Unit   Two years
Pumps   5,000 hours

OPTIONS

A. 28 V d.c. power supply (18 to 36 V d.c.)

B. ARINC429 Interface

C. IEEE488 GPIB control (RS232 standard)

D. PDA for wireless remote control

E. Multiple Pitot and Static Isolators controlled from keypad. 2+2, 3+3 or 4+4 (4+4 standard on MPS30BW)

F. ADWIN PC Control software

H. Gray Code Altitude Device Readout

M. Internal battery for >4 hrs operation

- **Custom Pitot/Static** connections available

- **Lightweight HDPE plastic case** w/wheels

Note: --- Ongoing development results in specifications being subject to change without notice ---