



D.MARCHIORI

MPS38B Digital Air Data Test Set

Full Automatic Control



FLIGHT LINE RVSM AIR DATA TEST SET WITH FULL DIGITAL CONTROL

The DMA MPS38B is a budget priced air data test solution for troubleshooting and certification of aircraft pitot-static systems. It provides test values and envelope generation capabilities required for air data testing of all modern commercial fixed and rotary wing aircraft. The MPS38B uses precision silicon bridge transducers digitally corrected in pressure and temperature for maximum accuracy.

EASY TO USE CONTROLS, CLEAR DISPLAY

The MPS38B operation is easy to understand and fast to use. The operator interface is easy to learn by both experts and first time users. All testing and troubleshooting with the MPS38B is performed via an intuitively arranged color-coded keypad on the front panel. All test information is displayed on a large, easy to read LCD display. Commanded and measured test values are simultaneously displayed at all times. The DMA on-demand pump driver used in the larger MPS air data testers is used in the MPS38B. The internal vacuum and pressure source runs only if required to ensure longer pump life.

FEATURES

- Accuracy ± 3 ft @ s. l. RVSM compatible
- Smart user interface supports first time users
- Simultaneous display of all functions; screen or menu changes not required
- User programmed limits
- Low maintenance design
- Internal pump running on demand
- Light weight, easily carried to the cockpit
- 30 user test programs

BUILT IN INSTRUMENT SAFETY

No more damaged instruments or air data test sets; the MPS38B comes equipped with built in protection to safeguard the test set units under test (UUT).

Both the test set and UUTs are protected by key MPS38B design features. The pressure condition of P_s greater than P_t (negative airspeed) is prevented in both the manual and automatic modes of operation. The test set and UUT is safely isolated when there is any power loss. The MPS38B is designed to reject any commanded values which exceed pre-programmed limits. Limits values are changeable and password protected.

SIMPLE CALIBRATION

The MPS38B allows for simple in-house calibration. Using a transfer calibration standard (for example DMA's own PAMB6 or PAMB7), the MPS38B can be calibrated in typically less than 20 minutes.

Calibration is performed by software adjustment only. No mechanical adjustments are required to the ADTS. Calibration factors are password protected.



MPS38B SPECIFICATIONS

Operating temperature range: -5°C to +50°C, Storage: -20°C to +70°C

Control capability on all load volumes : Static: 0 to 125 cubic inches, Pitot: 0 to 80 cubic inches.

Parameter	Range (*)		Resolution		Accuracy	
	Measure	Control	Meas.	Contr.	Measure	Control
Altitude(ft)	-2,000 +65,000	-2,000 +50,000	1	1	±3 @ SL ±7 @ 30,000 ±18 @ 50,000	±2
Altitude slew rate (ft/min)	0 to 50,000	0 to 6,000	25 >1,000 5 <1,000		±25 ±1% of reading	±100
Airspeed (knots)	10 to 700	10 to 700	0.1 > 50 1 < 50	1	±0.5 @ 50 ±0.1 @ >500	±2
Ultra low speed function	ULS:5 to 200		0.1 > 20		ULS: ±0.03 hPa	
Mach No.	0 to 4	0 to 4	0.001	0.001	< 0.003	±0.002
Airspeed slew rate (kt/min)	0 to 500	0 to 500	10	10	±10 ±1% of reading	±10%

STANDARD FUNCTIONS

Pressure/vacuum generation

Controlled venting to ambient

Altitude/airspeed input

Static/dynamic/total pressure input

Altitude/ Airspeed rate input

Mach Number input

Plus:

TAS temperature correction

Altitude offset correction

Automatic leak test

Up to 30 user test programs of 26 steps each

DISPLAY AND KEYPAD

Easy to read display in splashproof and shock protected front panel.

LCD with backlighting displays all test parameters.

CALIBRATION

One year interval, performed using software.

SAFETY

Hardware and software protection prevent UUT and test set damage

PHYSICAL SPECIFICATIONS

Weight: 10 kg (22 lb.)

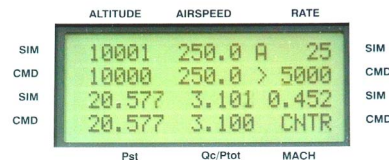
Dimensions: L 430, W 360, H 180 mm (17" x 14" x 7")

ENVIRONMENTAL

Splashproof and shockproof

CE compliant

FRONT PANEL DISPLAY AND KEYBOARD



POWER SUPPLY

Universal power supply: 90-240 Vac, 50-400 Hz

External battery supply available – part No EPU8E

WARRANTY

Unit 2 years

Pumps 1,000 hours

CASE

Lightweight, rugged HDPE plastic case

OPTIONS

K. EPU8E External power unit

- Custom Pitot/Static connections available

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



D. Marchiori srl Ground Support Equipment

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