



D.MARCHIORI

MPS38 Digital Air Data Test Set

Full Automatic Control



FLIGHT LINE AIR DATA TEST SET WITH FULL DIGITAL CONTROL

The DMA MPS38 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 MPS38 uses precision silicon bridge transducers digitally corrected for maximum accuracy.

EASY TO USE CONTROLS, CLEAR DISPLAY

The MPS38 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 MPS38 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 MPS38. The internal vacuum and pressure source runs only if required to insure longer pump life.

FEATURES

- Accuracy ± 5 ft at sea level
- 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

BUILT IN INSTRUMENT SAFETY

No more damaged instruments or air data test sets; the MPS38 comes equipped with built in protection to safeguard the test set and instruments / units under test.

Both the test set and instruments under test are protected by key MPS38 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 MPS38 is designed to reject any commanded values which exceed pre-programmed limits. Limits values are changeable; default limits values can also be changed but they are password protected.

SIMPLE CALIBRATION

The MPS38 allows for simple in-house calibration. Using a transfer calibration standard (for example DMA's own PAMB6 or PAMB7), the MPS38 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.



MPS38 SPECIFICATIONS

Operating temperature range, from 0°C to +50°C

Control capability on all load volumes : Static: 0 to 125cubic 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	±5 @ SL ±13 @ 30,000 ±30 @ 50,000	±5
Altitude slew rate (ft/min)	0 to 50000	0 to 6,000	25	25	±25 ±2%	±100
Airspeed (knots)	10 to 550	10 to 550	0.1 > 50 1 < 50	1	±0.5 @ 50 ±0.1 @ 500	±2
Mach No.	0 to 2	0 to 2	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	±5%

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

DISPLAY AND KEYPAD

Easy to read display is splash proof and shock protected on the 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

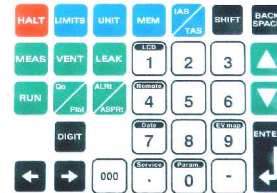
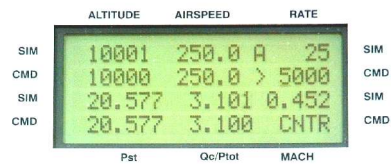
PHYSICAL SPECIFICATIONS

Weight: 35 lb. (16 kg)
Dimensions: L 17", W 14", H 14" (43, 36, 36 cm)

ENVIRONMENTAL

Splash proof and Shock proof
CE compliant

FRONT PANEL DISPLAY AND KEYBOARD



POWER SUPPLY

Universal power supply: 100-240 Vac, 50-400 Hz
External battery supply available – part No EPU8E

WARRANTY

The MPS38 is warranted for 18 months

CASE

Lightweight, rugged HDPE plastic case

OPTIONS

Custom Pitot/Static connections available
2 MPS31CAL calibration software (PAMB5 required)

Note: --- Specifications subject to change ---



D. Marchiori srl Ground Support Equipment
Via Pontina, km 43,856 - 04011 Aprilia (LT) ITALY - phone: ++39 06 9282733
fax++39 06 9275401 - www.d.marchiori.co.it - d.marchiori@mclink.it