



D. Marchiori

MPS63

Ultra Compact Digital
Air Data Test Set

$P_s \geq 55000 \text{ ft} - P_t \geq 700 \text{ kts}$

2-Hour Operation Removable Battery

Improved Pumps featuring an extended 1500 hrs warranty

Inbuilt Vacuum Source enabling DMA Adapter Kit operation

Widescreen Touch Screen Display, Integrated Wi-Fi, Reduced weight

Powered by AC, 28VDC or Internal Battery



MPS63 Ultra Compact Digital Air Data Test Set

SUPPLYING AIR DATA TEST SETS TO THE WORLD

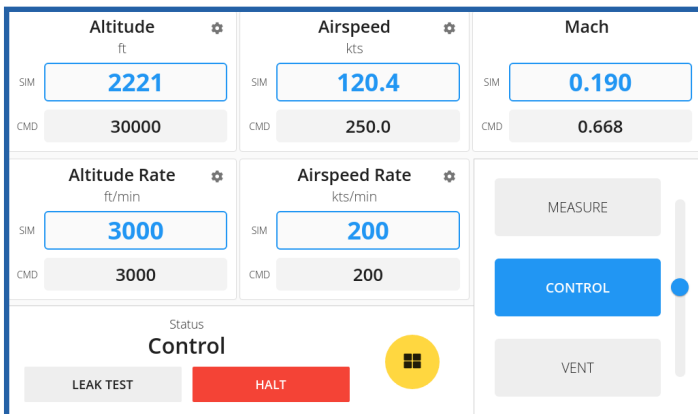
DMA dates back to 1938 supporting the international aviation industry through high accuracy Air Data Test Sets and GSE Tools to OEMs, MROs and professional users.

ULTRA COMPACT FLIGHT LINE TEST SET

The MPS63 is a third generation MPS43 legacy evolution ADTS embodying exceptional performance packed in a compact design. The improved panel features an hermetically sealed power switch providing enhanced environmental protection. Unit enables users to enjoy a superior Air Data Testing experience due to reduced and portable size characteristics uncommon on most available ADTS models. The rugged lightweight architecture meets most demanding aerospace requirements yet being cost effective.

USER INTERFACE

An enhanced widescreen colour display provides operating ease enabling simple testing and troubleshooting operations through clear result and instruction inputs. Critical air data functions are displayed simultaneously not requiring frequent screen/menu scroll changes. Commanded and measured test values are displayed.



END OF SELF TEST ACCURACY COMPLIANCE

An accurate absolute sensor takes care of the static/altitude channel while a differential transducer of the Qc/Pt airspeed channel. Pressure and temperature sensor characterisation ensures high accuracy performance significantly reducing warmup timing.

EXTENDED DURABILITY

MPS63 is a low maintenance rugged flight line instrument. Pressure and vacuum pumps operate upon request extending pump life.

ADDITIONAL Ps & Pt OUTLET PORTS

Individual panel Ps and Pt ports can be optionally extended adding a 3-Ps + 3-Pt manifold installed onto the rear case providing simultaneous reading of multiple probes and sensors under test.

TEST PROFILES

30 individual profiles are available each consisting of 26 test points. Readings showing up to 3 UUTs can be stored to a maximum of 300 results.



AUTOMATED CALIBRATION

Calibration performed by software is fast and simple requiring no mechanical adjustments. Use of a traceable Pressure Standard is required to suit MPS63 accuracies.

Calibration parameters are password protected. Sensor accuracies meet RVSM industry requirements. MPS63 internal volumes enable easy calibrations improving control stability.

INBUILT VACUUM SOURCE FOR SUCTION CUP ADAPTER TECHNOLOGY

MPS63 provides an inbuilt vacuum source operating suction cup adapter kits.

INTERNAL REMOVABLE BATTERY

MPS63 features an internal new generation rechargeable Lithium battery providing a 2-hour backup power for remote operations. During AC power failures battery allows uninterrupted testing providing a safe shut down until completed. Battery can be removed/replaced through a side panel access. Unit can operate on AC or DC without the battery.

INTEGRATED SAFETY LIMITS ENABLING UUT PROTECTION

MPS63 is designed for maximum safety during testing operations. Key features protect both the ADTS and systems under test. Negative Qc (Ps > Pt) events are prevented during manual and automatic operation.

Various factory preset or user programmed limits are available to prevent UUT damage. Such limits can be changed by user either temporarily or permanently adding password protection if required.

REMOTE CONTROL OPTIONS

MPS63 can be controlled by a wired MPSRC or wireless Bluetooth MPSRW2 touchscreen remote unit. The ADTS can also be operated using Android or Apple tablets through a Wi-Fi connection. Additionally an ADWIN software has been developed for use with PC devices.

EPR & ALTIMETER ENCODER

MPS63 is capable of displaying engine sensor testing EPR units while the encoder option allows gray code encoded device altitude readings.



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Comprehensive range of pitot-static adapters and kits available



Optional Ps & Pt distribution manifold



Optional **MPSRC** handheld touchscreen/keyboard wired remote control unit.

Inbuilt vacuum source

Extended pump durability operating upon request

Rugged portable splashproof case

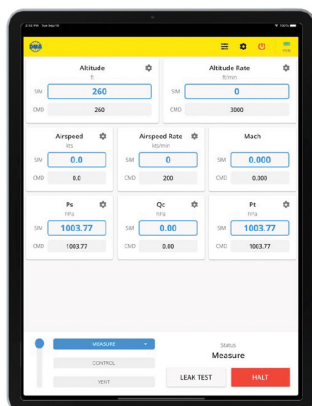
Universal AC or 28VDC power input.
Low power consumption enabling high accuracy and reliability.

Embedded power switch

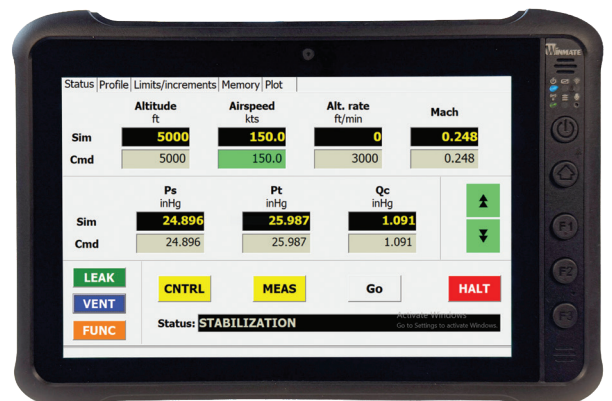
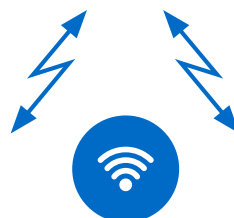
2-Hour battery operation

± 3 feet at sea level accuracy compliant to RVSM calibration requirements

Enhanced wide touchscreen display featuring an improved user interface



Optional **Android**/Apple tablet Wi-Fi operation



Optional **MPSRW2** Wireless Touchscreen

PARAMETER		RANGE		RESOLUTION		ACCURACY ^[3]	
		MEASURE	CONTROL	MEASURE	SETPOINT		
STATIC	Altitude (ft)		-2,000→ 55,000	-2,000→ 55,000	1	1	± 3 @ SL ± 7 @ 30,000 ± 18 @ 50,000
	Vertical Speed (ft/min)		0 → 6,000	0 → 6,000	5 @ < 3,000 ^[1]	1	± 1% of setting
	Static	(inHg abs)	2.7 to 32	2.7 to 32	0.0001	0.0001	± 0.003
		(hPa abs)	91 to 1,090	91 to 1,090	0.01	0.01	± 0.1
PITOT	Airspeed	Standard (kts)	10 → 700	10 → 700	1 @ < 50 0.1 @ > 50	1	± 0.5 @ 50 ± 0.1 @ > 500
		Ultra low speed function ^[2] (kts)	2 → 200	2 → 200	1 @ > 20		± 0.06 hPa
	Airspeed slew rate (kts/min)		0 → 500	0 → 500	10	10	± 10 ± 1%of reading
	Mach No. (mach)		0 → 2	0→ 2	0.001	0.001	< ± 0.003
	Pitot (Qc)	(inHg diff)	0 → 30.8	0 → 30.8	0.0001	0.0001	± 0.005
		(hPa diff)	0 → 1,042	0 → 1,042	0.01	0.01	± 0.17
	Engine Pressure Ratio (EPR)		1 → 2 @ SL	1 → 2 @ SL	0.001	0.001	0.001

Notes: Control capability on all load volumes (cu. in.): Static: 0 to 1.5 L (92 cu. in.), Pitot: 0 to 1 L (61 cu. in.). Larger volumes accepted.

[1] Selectable to ±1 ft/min [2] Activated on request, below 200 kts [3] Total accuracy includes all metrological uncertainties on measured pressure values. Full traceability metrological data results as provided by accredited laboratories.

STANDARD TEST FEATURES:

- Pressure/vacuum generation
- Inbuilt vacuum source for suction cup adapter operation
- Automatic leak check
- Controlled venting to ambient
- Altitude/airspeed input
- Static/dynamic(Qc)/total pressure input
- Altitude/airspeed rates input
- Mach Number input
- EPR generation
- TAS / IAS toggle, TAS temperature correction
- Altitude offset correction
- User programmed profiles
- Ultra low speed (5 to 200 kts) for improved accuracy and stability
- Audible alert while approaching set point

DISPLAY AND KEYPAD

New generation 7" widescreen display in a splashproof and shock protected panel indicating required test parameters.

DISPLAYED UNITS

Altitude: ft, m, hm
Airspeed: kts, km/h, mph
Pressure: inHg, hPa, kPa, Pa, bar, psi, mmHg, inH2O

CALIBRATION

One year interval (refer to local airworthiness authorities). Requires a traceable Pressure Standard. Adjustable calibration parameters.

PHYSICAL SPECIFICATIONS

Weight: 4.5 kg. (10 lbs.)
Dimensions: L 300 x W 250 x H 120 mm
(L 11.8 x W 9.8 x H 4.7 in.)
Fittings: Static: AN-4 (37° flare)
Pitot: AN-3 (37° flare)
Additional manifold: panel fitting configuration
Inbuilt Vacuum: AN-3 (37° flare)

Fittings include commercially available O-rings allowing finger-tightening operation.
Dust caps supplied.

ENVIRONMENTAL SPECIFICATIONS

Temperature range
Operating: -5°C to +50°C
Storage: -20°C to +70°C
Splashproof and shockproof.
CE compliant.

POWER SUPPLY

Universal power supply:
90-240 VAC; 50-400 Hz or 28VDC 20 VA
Rechargeable internal battery providing > 2-hour operation.
EPU6 external battery unit available.

WARRANTY

Unit: 2 Years
Pumps: 1500 hours / 2 years, whichever applies first.

OPTIONS

- A2** No internal battery
- B7** Altitude Encoder - Gray Code
- E12** Additional port manifold (3 Ps + 3 Pt)
- F4** ADWIN PC Control software (unlocked)
- K1** AN4 (Ps) + AN4 (Pt)
- K2** AN6 (Ps) + AN4 (Pt)
- K5** Staubli red (Ps) + black (Pt)
- K11** AN6 Vacuum port
- T0** Power cable 2m Schuko plug
- T1** Power cable 2m American plug
- T2** Power cable 10m Hubbel HBL5266C
- T3** Power cable 2m Australian plug
- T4** Power cable 2m UK plug

STANDARD ACCESSORIES

ADWIN PC Control software
USB cable
Power cable
28 VDC cable
Hoses and fittings

ASSOCIATED PRODUCTS

Pitot-static adapters
EPU6 External battery power unit
MPSRC Wired remote control
MPSRW2 Wireless remote control
PAMB11H Pressure indicators/transfer standards

Note: Continuous improvement results in specifications being subject to change without notice.



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