



D. Marchiori

MPS27C

Extended Range Air Data Test Set

- Independent control of Altitude & Airspeed
- Fully RVSM compliant with 12 months recalibration period
- Integral pressure and vacuum pumps with 5000 hour guarantee
- Universal ac powered and internal 4 hour battery back-up
- Optional multiple Ps & Pt ports with automatic line switching
- Rugged flightline unit with wheels and stowable tow handle





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Optional Touch Screen Remote Control. Includes USB port for test program storage on USB memory

Optional Hand Terminal provides intuitive user interface with back-lit display and colour coded keypad



Rugged splash proof case with wheels, stowable handle and removable lid

Universal power input with 28 VDC Option

Low power consumption for high accuracy and reliability

USB port for USB memory

Terminal connector and RS232 port

Vacuum supply for static adaptors

ARINC429, IEEE488 and Altitude encoder interfaces available as options

Internal 4 hour battery for safety and versatility

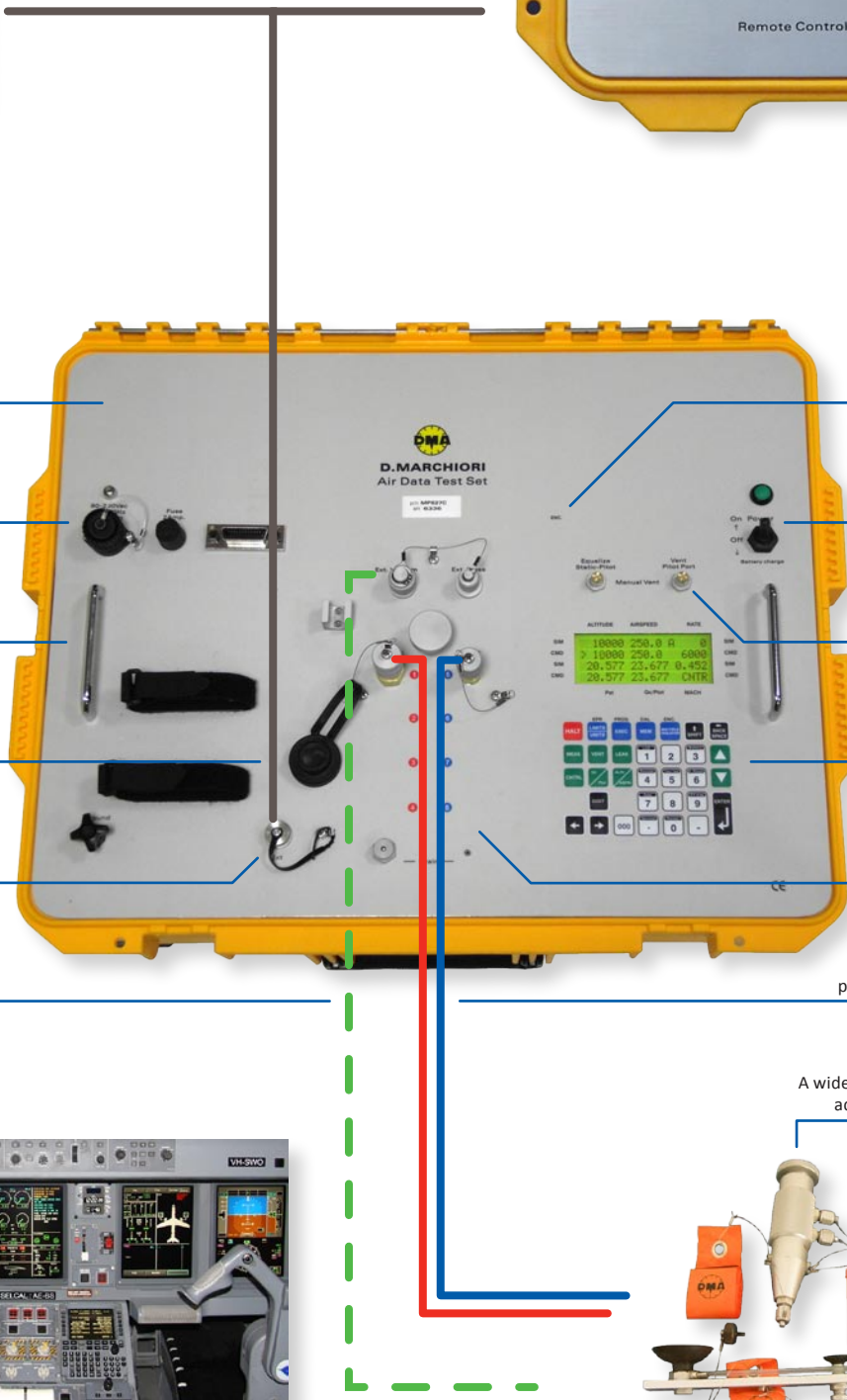
Manual vents for Static and Pitot

Local back-lit display and colour coded keypad for laboratory use

Optional multiple line switching. 2+2, 3+3 or 4+4 static and pitot

2 Channels of independent pressure control for Static and Pitot

A wide range of pitot-static adaptors and adaptor kits are available from DMA





MPS27C Standard Specifications

	PARAMETER		RANGE		RESOLUTION		ACCURACY	CONTROL STABILITY
			MEASURE	CONTROL	MEASURE	SETPOINT		
STATIC	Altitude (ft)		-3,000→99,999	-3,000→80,000	1	1	± 3 @ SL ^[1] ± 5 @ 30,000 ± 20 @ 60,000	± 2
	Vertical speed	Standard (ft/min)	0→6,000	0→6,000	5 @ < 1,500 ^[3]	1	± 10 ± 1% of reading	± 10 ± 1% of reading
		High rate ^[2] (ft/min)	0→99,999	0→50,000				
Static (inHg abs) (hPa abs)		0.3→33.3 10→1130	0.8→33.3 27→1130	0.001 0.01	0.001 0.01	± 0.003 ± 0.1	± 0.002 ± 0.07	
PITOT	Airspeed	Standard ^[3] (kts)	5→700 ^[4]	5→700 ^[4]	1 @ < 50 0.1 @ > 50	0.1	± 0.5 @ 50 ± 0.1 @ > 500	± 1
		Ultra low speed function ^[5] (kts)	5→200	5→200	0.1 @ > 20		± 0.03 hPa	± 0.03 hPa
	Airspeed slew rate (kts/min)		0→800	0→800	10	10	± 10 ± 1% of reading	± 5%
	Mach No. (mach)		0→10	0→10	0.001	0.001	< ± 0.002	± 0.002
	Pitot (Qc)	Standard (Qc) (inHg diff) (hPa diff)	0→31 0→1040	0→31 0→1040	0.0001 0.01	0.0001 0.01	± 0.003 ± 0.1	± 0.003 ± 0.1
		Option I (Qc) (inHg diff) (hPa diff)	0→50 0→1690	0→50 0→1690			± 0.005 ± 0.17	± 0.004 ± 0.14
		Option J (Pt) (inHg abs) (hPa abs)	0.8→103 0.8→3500	0.8→103 0.8→3500			± 0.005 ± 0.17	± 0.004 ± 0.14
Engine Pressure Ratio (EPR)		1→2.5 @ SL	1→2.5 @ SL	0.001	0.001	0.001	± 0.001	

Notes: Control capability on all load volumes : Static: 0 to 2 L (125 cu. in.), Pitot: 0 to 1.3 L (80 cu. in.). Larger volumes acceptable

¹ For option J, accuracy improved to ± 2 @ SL, ± 4 @ 30,000, ± 15 @ 60,000

² High rate achievable into small system volumes

³ 10 above 1,500 ft/min, 25 above 3,000 ft/min, 50 above 6,000 ft/min, 100 above 12,000 ft/min

⁴ Option I, range is 25 → 850 kts. Option J, range is 5 → 1,000 kts.

⁵ Standard mode of test set below 200 kts

STANDARD TEST FUNCTIONS

- Pressure/vacuum generation
- 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
- 30 user test programmed profiles of 26 steps each
- Ultra low speed (5 to 200 kts) for improved accuracy and stability
- USB port for USB memory device to store results and download test programs
- Audible indication when approaching set point

DISPLAYED UNITS

Altitude: ft, m

Airspeed: kts, km/h, mph

Pressure: InHg, hPa, kPa, Pa, psi, mmHg

DISPLAY AND KEYPAD

Integral display and keypad in splash proof and shock protected front panel.
Back lit LCD displays all test parameters.

CALIBRATION

One year interval, performed using software.

PHYSICAL SPECIFICATIONS

Weight: 30 kg. (66 lbs.)

Dimensions: L 625 x W 500 x H 300 mm
(L 24.6 x W 19.7 x H 11.7 in.)

Connections: Quick release Hansen fittings.

ENVIRONMENTAL

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.
100 VA

4 hours operation internal rechargeable battery

WARRANTY

Unit: 2 Years

Pumps: 5000 running hours

OPTIONS

- A. 28 V d.c. Power supply: (18 to 30 V d.c.)
- B. ARINC429 monitoring interface
- C. IEEE488 GPIB control (RS232 is standard)
- D. PDA and software for wireless remote control
- E. Multiple Pitot and Static Isolators controlled from keypad. 2+2, 3+3 or 4+4
- F. ADWIN PC Control software
- G. Hand held remote control unit: 4 x 20 characters LCD with 15m extension cable
- H. Gray Code Altitude Device Read-out
- I. Extended range (850 knots, 2 pumps)
- J. Extended range (1000 knots, 2 pumps) with absolute resonant transducer for Pitot
- L. Touch Screen Remote Control
- Custom Pitot/Static connections available

ASSOCIATED PRODUCTS

Pitot-static adaptors

Pressure indicators/transfer standards



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Representative



SIT N.106

Ongoing development results in specifications being subject to change without notice