



D.MARCHIORI

MMA-6 Dual Pressure Controller

**with liquid column absolute manometer and two pressure lines controlled by precision resonant transducers.
Pressure generation accuracy better than 0.007% f.s.
Easy to use: software error compensation and test execution**



PRESSURE CONTROLLER

The DMA MMA6 is an automatic dual pressure controller for calibrating aircraft instruments. Two high precision resonant transducers are used as reference sensors to control the pressures needed for testing altimeters, vertical speed indicators, anemometers, machmeters, manometers, pressure indicators and calibrators, etc. The same pressures are applied to the liquid column master manometer to check the accuracy of the measuring system. All the procedures are computer driven via a standard keyboard and are displayed on a 15" standard CRT. A dc electric motor driven by the photo scanner, commands the precision ball screw to measure the liquid column height. Temperatures, liquid column vacuum reference and ball screw correction chart are automatically software calculated.

FEATURES

- **Two pressure lines**
- **Liquid column master manometer**
- **Software driven tests**
- **Three pumps: double stage and single stage vacuum and membrane type overpressure**
- **Altitude resolution: 1 foot**
- **Airspeed resolution: 0.1 knots**
- **Pressure resolution: 1 pascal**
- **Reference bar to correct ball screw errors**
- **Automatic software temp., vacuum, gravity and ball screw correction**
- **No operator needed in Hg column reading**
- **Powerful user-friendly operation**
- **Universal power supply: 120 to 240 VAC**

STANDARD SPECIFICATIONS

Operating temperature range, from 10°C to 30°C

parameter	Range	Resolution	Accuracy	note
Hg manometer pressure Pa	160000	0.7	0.007 % f.s.	Master (read)
Controller pressure 2 (pit) Pa	260000	1	0.015 % f.s.	read
Controller pressure 2 (pit) Pa	260000	1	0.02 % f.s.	control
Controller pressure 1 (sta) Pa	160000	1	Same as master	read
Controller pressure 1 (sta) Pa	160000	1	0.015 % f.s.	control
Altitude feet	-15k to 99000	1		Can be limited software
Airspeed knots	10 ÷ 850	0.1		Can be limited software
Mach number	0 ÷ 6	0.001	±0.001	

FUNCTIONS

Pressure/vacuum generation
 Static/total pressure input
 Altitude/airspeed input
 Altitude/ Airspeed rate input
 Mach Number input
 Plus:
 Automatic error correction

DISPLAY AND KEYPAD

Standard VGA display 15" CRT
 Standard Keyboard.

CALIBRATION

Stainless steel bar can be sent to official calibration laboratory for steps length certification

PHYSICAL SPECIFICATIONS

(controller)

Weight: 25 kg (55 lb.)
 Dimensions: 21"x 17"x 7"

(mercury manometer)

Weight: 60 kg (130 lb.)
 Dimensions: 13"x13"x74"

MERCURY COLUMN HEIGHT READING

Photoelectric scanner
 Ball screw with dc motor driven by the photoelectric scanner

MERCURY COLUMN SAFETY

Automatic vent to ambient pressure avoid overpressure on the liquid column

CONTROLLER

Two resonant sensors
 Two pneumatic lines controlled by frequency regulated electrovalves

ENVIRONMENTAL

Warm-up time 3 min
 Warm-up time for full accuracy 30 min

POWER SUPPLY

110 ÷ 220 V 50÷400 Hz

WARRANTY

Controller one year
 Hg manometer two years

OPTIONS

RS232 serial communications
 Printer

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

