MARTEL ELECTRONICS

BETA CALIBRATORS

Calibration Technology Starts Here

High Accuracy Multi-function Calibrator

Accuracy by Any Measure

MARTEL Beta MC-1000

The MC-1000

Multi-Function Calibrator provides the combination of a high accuracy calibrator and common DMM functions. This single instrument will calibrate virtually any process device — read and source thermocouples, RTDs, Ohms, Voltage, current, frequency, pressure — and test continuity as well. The MC-1000 is compatible with both Fluke 700 Series and BETA pressure modules with the addition of a simple connector/adapter. The MC-1000 features a simple user interface, large display, and an RS232 interface.

General Features

- ±0.4 °C thermocouple/±0.3 °C RTD accuracy
- ±0.015% of reading electrical accuracy
- Ten (10) T/C types and eight (8) RTD types, plus YSI 400
- Read and source modes
- Full function 4 to 20 mA read, source, simulate, and read/power modes with ±0.015% of reading accuracy
- Source or read 0 to 20 Volts (±0.015% of reading accuracy)
- Measure 0 to 250 VDC or VAC
- Direct keyboard entry enables quick output changes
- Store up to nine (9) setpoints for each output function
- RTD function compatible with all pulsed transmitters
- RS232 interface
- Supplied in full rubber boot

For more information:
- Call us toll free at 800-821-0023 or 603-434-1433
- Fax us at 603-434-1653
- Email us at sales@martelcorp.com
  and ask for a MC-1000 brochure
- Or go to our website, www.martelcalibrators.com
  and click on MC-1000
- **Online Demo**

MARTEL Beta MC-1000

Specifications (23 °C ±5 °C unless otherwise noted)

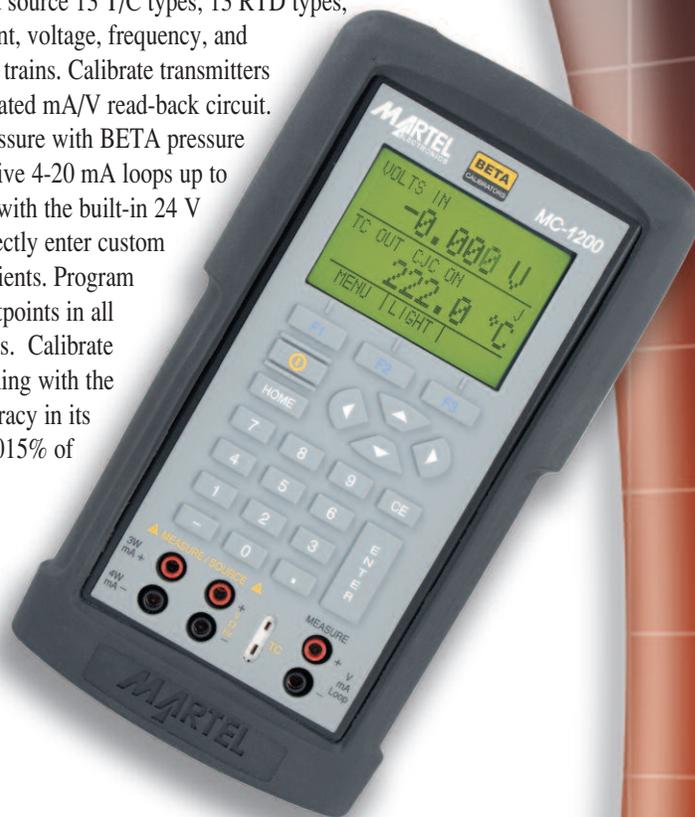|	
Pressure Ranges	Various ranges in 29 different pressure modules – see separate Pressure Module data sheet
T/C Ranges	J, K, T, E, R, S, N, B, L, U, including – 10 to 75 mV
RTD Ranges	Pt 385 (100, 200, 500, 1000Ohms) Pt 392, JIS, Ni120, Cu10, YSI400
Ohms Ranges	0 to 400.00 and 400 to 3,200
mA Range	0 to 24.000 mA
Voltage	
(Low) Read	0-20.000 VDC
Source	0-20.000 VDC
(High) Read only	0-250 VDC or VAC
Frequency	
CPM	
Source	2.0 - 1,000.0
Measure	0.0 - 1,000.0
Hz	
Source	0 - 1,000
Measure	0.0 - 1,000.0
kHz	
Source	1.0 -10.0
Measure	0.00 -10.00
Continuity	0 to 400.0 Ohms; audible tone when under 10 Ohms
Accuracy	[°C total error]
T/C Type J	±0.3 °C ±10 µV; [±0.4 °C]
RTD Pt 100	±0.1 °C ±0.075 Ω ; [±0.3 °C]
Ohms (400)	±0.1 Ω
Ohms (3,200)	±1.0
mA Compliance	Up to 1,000 Ω load
Voltage Drive Capability	1 mA
RTD IEX-Range	0.01 mA to 3 mA
RTD Frequency Response	10 ms – works with all pulsed transmitters
Power Requirements	6 VDC
Batteries	4 AA alkaline batteries, 25 hours typical operating time
Mechanical	
Dimensions	8.7" H x 4.2" W x 2.3" D (220.9 x 106.6 x 58.4 mm)
Weight	30.5 ounces (863 gms)
Accessories Included	Test leads, 4 AA alkaline batteries, NIST Certificate, and instruction manual
Optional Accessories	Carrying Case; Model CC572

Need more performance and features in the field?

Try the MC-1200 Multi-Function Calibrator

Measure and source 13 T/C types, 13 RTD types, Ohms, current, voltage, frequency, and source pulse trains. Calibrate transmitters with the isolated mA/V read-back circuit. Measure pressure with BETA pressure modules. Drive 4-20 mA loops up to 1000 Ohms with the built-in 24 V supply. Directly enter custom RTD coefficients. Program dedicated setpoints in all source modes. Calibrate almost anything with the highest accuracy in its class — ±0.015% of reading!

Measuring Pressure with the MC-1000

The MC-1000 is compatible with both Fluke 700 Series and BETA pressure modules, with the use of an adapter kit.* Please refer to the separate Pressure Modules data sheet for module ranges and model numbers, as well as information about the adapter kit.

*BetaPort Pressure Adapter, Model BPPA-100.

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