



UniCal MMX3



Process Calibrator True RMS Multimeter

PORTABLE CALIBRATORS

- Simultaneous source/simulate and measure on large dual display
- Constant current output for loads up to 1200Ω
- Bipolar current ($\pm 25\text{mA}$) and voltage ($\pm 1.5\text{V}$, $\pm 15\text{V}$) outputs
- Measure DCmA, ACmA, DCV, ACV, AC+DC, Temperature, Frequency, Duty Cycle, Pulse Width, Resistance, Continuity, and Diode
- True RMS measurement for non-linear voltage and current loads



Bulletin 08-27.2 E

A single instrument to perform all most common tests and calibrations on process control equipments and systems. 15 different functions available in a rugged, compact, two channel and dual LCD display unit.

Source / Simulate

Constant bipolar Voltage source
 Constant bipolar Current source
 Simulate current using external loop power
 Frequency (square wave) source

selectable amplitude
 variable duty cycle
 variable pulse width
 Programmable source for automatic testing
 manual stepping
 automatic stepping
 automatic ramping

Measure

Voltage
 Current
 DC inputs
 True RMS AC and AC+DC

Min, Max and Average values
 Frequency duty cycle and pulse width
 Temperature
 Ohms and Continuity
 Diode
 1 mS fast peak hold

Data collection

RS232 interface optional cable and data collection software



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Specifications

Ordering code

Source (Output)	Ranges	Max res.	Accuracy (% output + digits)
DC Voltage	±1.5 V	100µV	±(0.03% + 0.3 mV)
	±15 V	1 mV	±(0.03% + 3 mV)
DC Current	±25 mA	1µA	±(0.03% + 5 µA)
	<i>(Max load 1200Ω)</i>		
Squarewave	28 Frequency	0.01 Hz	±(0.005% + 0.01 Hz)
	<i>(0.5, 1, 2, 5, 10, 15, 25, 30, 40, 50, 60, 75, 80, 100, 120, 240, 300, 400, 480, 600, 800, 1200, 1600, 2400, 4800 Hz)</i>		
Duty Cycle	0.39% to 99.60%	0.390625%	±(0.01% + 0.02%)
Pulse Width	1/frequency	Range/256	±(0.01% + 0.3 ms)
Amplitude	5V, ±5V, 12V, ±12V	0.1 V	±(2% + 0.2 V)
Measure (Input)	Ranges	Max res.	Accuracy (% rdg + digits)
DC Voltage	50 mV	1 µV	±(0.05% + 50 d)
	500 mV, 5V, 50V	10 µV	±(0.03% + 5 d)
	250 V	10 mV	±(0.06% + 3 d)
AC Voltage (45Hz - 20kHz)	50, 500 mV, 5, 50, 250 V	1 µV	±(1.5% + 20 d) @50/60 Hz
DC Current	50 mA, 500 mA	1µA	±(0.3% + 5 d)
AC Current (45Hz - 2kHz)	50 mA, 500 mA	1µA	±(0.6% + 20 d)
AC+DC Voltage	50, 500 mV, 5, 50, 250 V	1 µV	±(0.8% + 25 d) @50/60 Hz
AC+DC Current	50 mA, 500 mA	1µA	±(1.2% + 10 d)
1 ms Peak Hold (Glitch capture)	50, 500 mV, 5, 50, 250 V	1 µV	±(2% + 400 d)
Resistance	500Ω, 5, 50, 500kΩ, 5MΩ	0.01Ω	±(0.15% + 5 d)
	50 MΩ	1kΩ	±(1% + 8 d)
Temperature (type K)	-40 °F to 2502 °F	1/0.1 °F	±(0.3% + 6 °F)
	-40 °C to 1372 °C	1/0.1 °C	±(0.3% + 3 °C)
Frequency	100Hz, 1, 10, 100, 200kHz	0.001 Hz	±(0.02% + 3 d)
Duty Cycle	0.1 - 99.9 %		±(0.3% per kHz+ 0.3 %) f.s.
Pulse Width	0.2 - 1999.9 ms		±(0.2% + 3 d)
Diode check	0.45 mA @ 4.8 V		
Continuity	Beeper < 10Ω on 500Ω range		
Dimensions/Weight	1.45x3.54x7.56" (37x90x192mm) / 3.75 lbs. (1.71 Kg.)		

Cat. 3421 - A - B

Table A Accessories

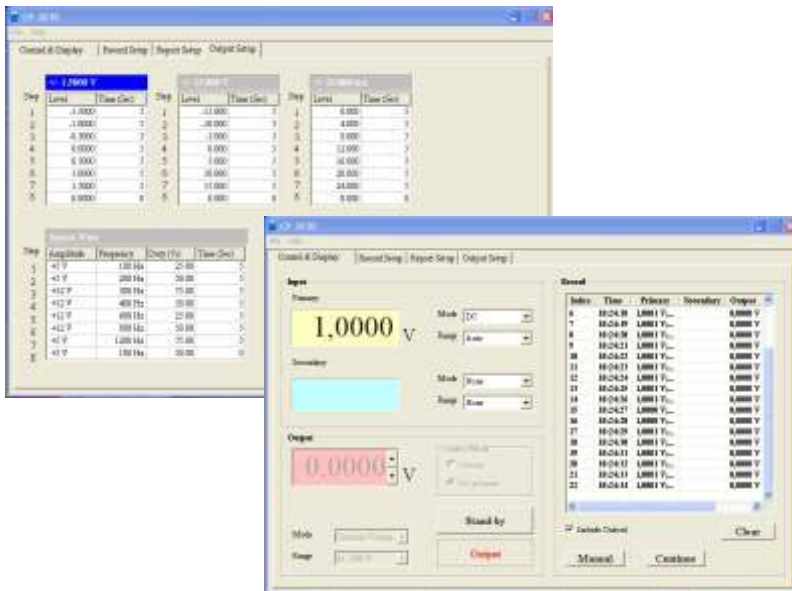
- 0 None
- 1 RS232 cable with Windows software

Table B Calibration certificate

- 0 None
- 1 Eurotron Report



Optional PC Software



Windows software displays and datalogs source and measured values and generates a basic Calibration Report for unit under test.

Specifications may change without notice.



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