

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Coherent / Molectron EPM-2000* at our website: ***Click HERE***

Features

EPM2000
Dual-Channel Laser Energy/Power Meter

- ***Large, easy-to-read 4-digit liquid crystal display with EL panel backlight***
- ***Auto range***
- ***RS-232 port (standard)***
- ***IEEE-488 port (optional)***
- ***Analog output***
- ***NIST traceable***

JOULEMETER FEATURES:

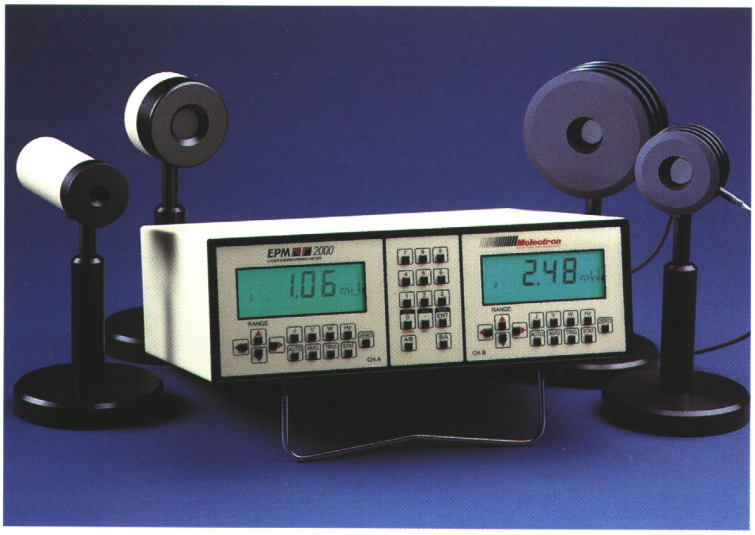
- ***Measure Energy, Average Power, or Frequency***
- ***Wide dynamic range: 1 pJ to 3 kJ, 0.1 to 1000 Hz***
- ***Fast pulse capture: 1000 pps without ratio 500 pps with ratio***
- ***Sensitive: 100 fJ (silicon)***
- ***Pulse widths: fsec to msec***
- ***Full statistics functions: average, standard deviation, min., or max. for 2 to 9999***

POWER METER FEATURES:

- ***Measure Power or Energy***
- ***Wide dynamic range: 1 mW to 10 kW power or 10 mJ to 3kJ energy***
- ***Sensitive: 100 fJ or 100 µW***
- ***Use with all PowerMax® probes***
- ***Precise wavelength correction***
- ***Probe temperature compensation***

Applications

- *Pulsed Laser Energy*
- *Continuous Laser Power*
- *Pulse-to-Pulse Stability*
- *Laser Production Test*
- *Laser R & D*
- *Laser Process Control*
- *Flashlamp Pulse Energy*
- *Medical Laser System Performance*



Two meters in one: ***Energy Meter with our Pyroelectric and Silicon Joulemeter Probes. Power Meter with our PowerMax® Thermopile Probes!***

Description

The new **EPM2000** is a dual-channel version of the versatile **EPM1000** Laser Energy and Power Meter. Built on Molectron's proven EPM technology, it is an incredibly versatile instrument designed for the most rigorous laser research and production test applications.

The EPM2000 is compatible with Molectron's entire line of pyroelectric/silicon joulemeter and PowerMax® thermopile probes. It measures pulse energy, power and frequency from pJ to J, µW to kW and milliseconds to seconds, and features ratiometric capability for any appropriate combination of measurements. It does it all in real time and displays the measurement on two large, easy-to-read, custom alphanumeric LCDs – in absolute terms or a statistical format including Average, Standard Deviation, Minimum, or Maximum.

Molectron's advanced microprocessor design and standard RS-232 digital interface make remote operation and data collection at very high rep rates easy. The GPIB (IEEE-488) is offered as an option.

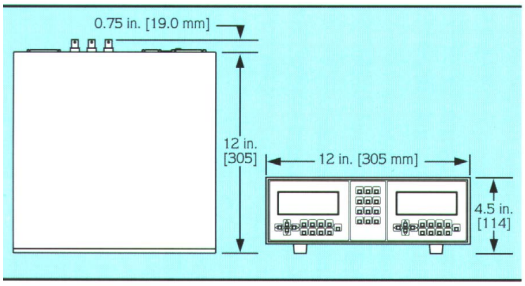
As a stand-alone laboratory instrument, the EPM2000 can't be matched – its logical, push-button control panel makes operation a breeze. We guarantee that you can put it to use in seconds without opening our manual!

We've taken your valuable inputs and drawn on our 20 years of detector and instrument design experience to make the EPM2000 the optimum Laser Energy and Power Meter.

Each channel has a full set of function keys for instant access to often-needed functions. Each instrument has one numeric keypad for entering calibration factors, statistics batch size, RS-232/IEEE-488 setup and accessing setup functions. Up to four instrument setups can be saved and instantly recalled.

Molectron
DETECTOR, INCORPORATED

EPM2000
Dual-Channel Laser Energy/Power Meter



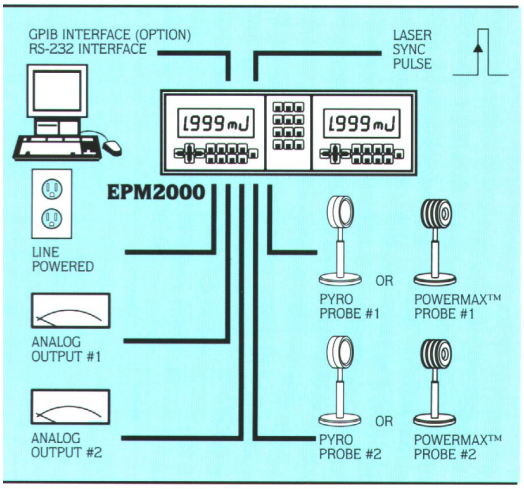


Figure 1. The EPM2000 is a flexible instrtument that interfaces with a variety of analog and digital devices.

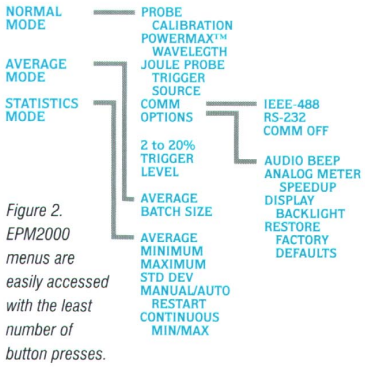


Figure 2. EPM2000 menus are easily accessed with the least number of button presses.

Controls and Connectors

FRONT PANEL

Unit keys (per channel)
- **J:** Energy mode in Joules
- **V:** Voltage DC/peak Volts
- **W:** Power mode in Watts
- **Hz:** Pulse frequency mode

Operating mode keys (per channel)
- **AVG:** Selects up average mode for energy or power
- **STAT:** Selects statistics mode to display Average, Standard Deviation, Minimum or Maximum

Arrow keys (per channel)
- **UP/DOWN:** Selects range/ navigate setup menus
- **LEFT/RIGHT:** Selects STAT mode/ navigate setup menus

Additional function keys (per channel)
- **AUTO:** Selects auto range
- **TRIG:** Selects internal or external trigger and trigger level for energy mode
- **ZERO:** Auto zero for power mode

Numeric keypad (per instrument)
- **1-9 numeric entry**
- **COMM/0:** Enter computer communication setup/ numeric entry
- **SET/DECIMAL:** Access setup functions
- **ENTER:** Accept data entry

REAR PANEL

SMART PROBE INPUT: DB25S connector for PowerMax™ probes and special powered J probes

PYRO INPUT: BNC connector for J probes

TRIG INPUT: Synchronizes the instrument with the laser

ANALOG OUTPUT: BNC provides 0 to 2 VDC proportional to full scale display reading

CONNECTORS:
- **RS-232** DB9S wired as DTE device
- **IEEE-488** for optional GBIB interface
- **POWER INPUT:** IEC connector

General Specifications

Display:
2 large alphanumeric LCDs

Ranges (*depends on probe R_V):

Energy*	1 pJ to 3 kJ
Power*	1 mW to 10 kW
Frequency	0.1 to 500 Hz
Volts	10 μV to 20 V

Electronic accuracy:

Analog Output:	± 1% of full scale
Digital Display:	± 1% of full scale

System accuracy:
Pyroelectric probe: ± 5% of full scale
Thermopile probe: ± 3% of full scale (with wavelength correction)

Resolution (*depends on probe R_V):

Energy*	Silicon	10 fJ
	Pyroelectric	10nJ
Power*	100 μW	
Frequency	0.1 Hz	
Volts	1 μV	

Maximum Rep Rate:

without ratio	1000 pps
with ratio	500 pps

Maximum Pulse Width:

Pyroelectric	10 msec
Thermopile	unlimited

Trigger:
Adjustable 2% to 15% of full scale

RS-232 Baud rates:
38400, 19200, 9600, 4800, 2400, and 1200

Power:
120V/240 VAC, 50/60 Hz
1.0 A maximum at 120 VAC

Weight:
5.9 lbs (2.7 kg.)

Size:
12" × 12.8" × 4.5" (305 x 325 x 114 mm)

Molectron
DETECTOR, INCORPORATED

7470 S.W. Bridgeport Road Portland, Oregon 97224
email: info@molectron.com http://www.molectron.com

(800) 366-4340 (503) 620-9069 FAX (503) 620-8964

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP