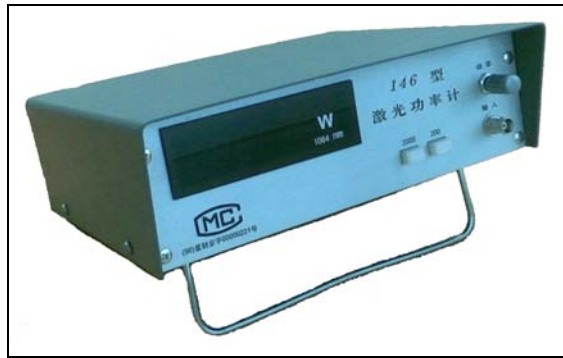


## Economic Laser Power/Energy Meters



Display



Detector

### Laser Power Meters

Model	146	147	148	M-92A	M-92B	M-92C	M-93
Range	200W 2000W	2uW- 20W	2W-200W 2mW-200mW	0.2W- 20W	2W-50W	2W- 200W	20mW 200mW
Resolution	0.1W	1nW	1064nm:1mW 633nm:1uW	0.1mW	1mW	1mW	0.01mW
Sensor diameter	20mm			18mm	18mm	25mm	10mm
Wavelength	400-1100nm			190nm-25um			400-1100nm
Calibration @ wavelength	1064nm	633nm	1064nm 633nm	10.6um			633nm
Max power density	15kW/cm <sup>2</sup>			350W/cm <sup>2</sup>			
Max energy density	70J/ cm <sup>2</sup>						
Display	3.5-digit LED						
Un-stability	5%						
Cooling	water	air				water	air
application	High-power laser	Low-power laser	Medium laser	CO2 laser			Low-power laser

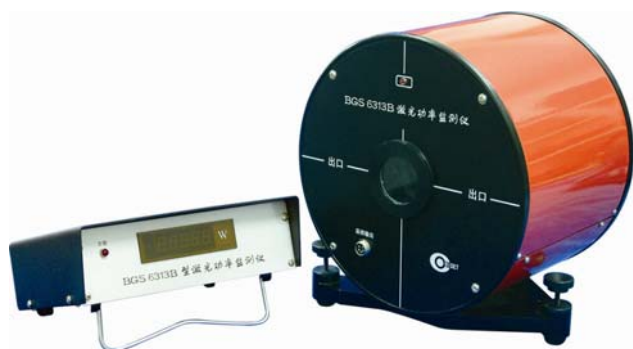
Remark: A power meter consists of a display and a detector. The power meter has been calibrated at a given wavelength before shipping.

### Laser Energy Meters

Model	M2000B	M2000	145A	145B	145C
Range	2J-200J	2J-200J	200mJ-20J	2J-200J	20mJ-2J
Resolution	1mJ	1mJ	0.1mJ	1mJ	0.01mJ
Sensor diameter	11.3mm 50mm	50mm	20mm	20mm	20mm
Wavelength	190nm-25um	190nm-25um	400 nm-3um	400nm-3um	400 nm-3um
Calibration @ wavelength	10.6um	10.6um	1064nm, 532nm, 694nm		
Max power density	10GW/cm <sup>2</sup>	10GW/cm <sup>2</sup>	10GW/cm <sup>2</sup>	10GW/cm <sup>2</sup>	10GW/cm <sup>2</sup>
Max energy density	70J/cm <sup>2</sup>	70J/cm <sup>2</sup>	70J/cm <sup>2</sup>	70J/cm <sup>2</sup>	70J/cm <sup>2</sup>
Display	3.5-digit LED				
Un-stability	5%				
Cooling	air				
Application	CO <sub>2</sub> laser energy measure	Long pulse width energy measure	Pulse repetition rate 0-30Hz measure		

## ST6313B CO2 Laser Power Meter and Monitor

ST6313B is used to measure and monitor the laser CW power of CO2 lasers. The laser power values and signals can be used to monitor the laser processing and usage.



Display	4-1/2 digital display
Maximum measured laser power	10kW
Insert loss	<1%
Calibration wavelength	10.6um
Entrance beam aperture	60mm in diameter
Response time	3s
Display non-stability	+/-5%
Output	<ul style="list-style-type: none"> <li>● Analog output signal</li> <li>● Display</li> </ul>
Alarm	Output an alarm when the detector stops.

## Portable Laser Power Meter

Innovative Power Meter Offers Unbeatable Convenience



The measurement of laser power is quick and simple with our power meter. The hand held power meter is a low cost, lightweight alternative to bulky, two-piece thermopile power meters and probes, or traditional “meat thermometer” probes. Ideally suited for industrial, scientific, and medical applications, use it when setting up your systems, and as a service tool to ensure maximum performance of your laser system at any time.

Designed to measure power levels from 1 - 250W, the power meter measures output power from the ultraviolet to the far infrared. This makes it the perfect tool for checking the performance of your excimer, argon, diode, YAG, and CO2 lasers, to name just a few.

Automatic data hold and auto ranging make the power meter easy to use. Simply insert the sensor into the laser beam and hold in place for a few seconds. The easy-to-read LCD screen will then display an accurate measurement of average laser power. To take another reading, simply push the reset button, and the power meter is ready to go.

Range	1-250W
Resolution	0.1W
Wavelength range <sup>1</sup>	190nm – 11um
Individual calibrated wavelength <sup>1</sup>	10.6um
Target absorption <sup>1</sup> , 190nm – 1.1um & 9-11um	0.96-0.99
Target absorption <sup>1</sup> , 190nm – 1.1um	0.93-0.99
Accuracy	±5%
Target diameter	22mm
Setting time	<4second
Max. allowable input power (single application)	300W
Max. average power density <sup>2</sup>	20kW/cm <sup>2</sup>
Max. peak energy density <sup>3</sup>	1J/cm <sup>2</sup>
Max. target temperature	180°C
Typical target temp. rise per measurement	0.4°C/W
Typical battery life	5 years (25,000 readings)
Battery type	3xCR2025 lithium
Auto shut-off time	25 seconds
Data hold time	15 seconds
Size	159x30x12mm
Weight	80g

Specifications subject to change without notice.

<sup>1</sup> Typical absorption curve supplied with each meter

<sup>2</sup> Damage to coating may cause above this value.

<sup>3</sup> For pulsed lasers and 50usec pulse width.

### Features:

- Wavelength range: 190nm – 11um
- Pocket sized
- Highly accurate
- Instant recycle
- Easy-to-read digital display
- Automatic data hold
- Auto ranging

- Automatic shut-off
- Long life lithium battery
- Audible signals

