

# Advanced Digital Meter ADM-1000

A new force in advanced laser power measurement

The ADM-1000 offers laser users a new level of power-measuring performance combined with the ease of using a hand-held power meter – all at an affordable price.

- Super-fast response times down to 700 ns using the Lasermet Advanced Detector Interface
- Exceptionally high accuracy and repeatability
- Peak power, energy per pulse and average power measurements
- Display and measurement of pulsed waveforms up to 400 kHz
- Easy-to-use hand-held instrument
- Choice of compatible photodiode and thermal heads
- Patented speed-up circuitry and stabilisation electronics for thermal heads
- New compact photodiode head for measurements in confined spaces
- Fully calibrated and traceable to international and UK National Physical Laboratory standards
- Illuminated display and keypad



The ADM -1000 offers laser users a new level of power-measuring performance combined with the ease of using a hand-held power meter – all at an affordable price.

The specialist design team at Lasermet developed the ADM-1000 in response to customer demand for a laser power meter with better quality and performance - one that is truly responsive, accurate, stable and easy to use.

The result is a convenient hand-held power meter with a response rate that is effectively instantaneous and



ADM-1000 with  
Standard & Compact  
Photodiode Heads

the ability to make consistent, accurate measurements of peak and average power. For pulsed laser users, the ADM-1000 offers the precision to measure and display waveforms up to 400kHz.



At the heart of the system is the Lasermet Advanced Detector Interface (ADI) which has been specially configured to enable the ADM-1000 to measure significantly smaller and faster signals than conventionally-used meters. The ADI allows the electronics to be placed close to and optimised for each detecting head thereby achieving maximum performance every time.

The hand-held Advanced Digital Meter, which provides clear digital and graphical displays, is used in conjunction with any of the Lasermet

detector heads. There are high-performance photodiode and thermal heads to choose from depending on the laser characteristics and type of measurements to be undertaken.

This versatile instrument has a wide variety of applications including:

- Production calibration
- Automatic laser stability testing
- Instantaneous measurements
- Direct peak power measurement for pulses of 4  $\mu$ s or longer
- Pulse energy measurement
- Pulsed laser characterisation
- Laboratory or field use
- Medical laser output power / energy check
- Measurements in confined areas
- Laser tuning
- Oscilloscope function

**lasermet**  
laser safety solutions\*

## Standard Photodiode Heads

These are supplied complete with integrating spheres for maximum reduction of reflections, easy alignment and high accuracy.

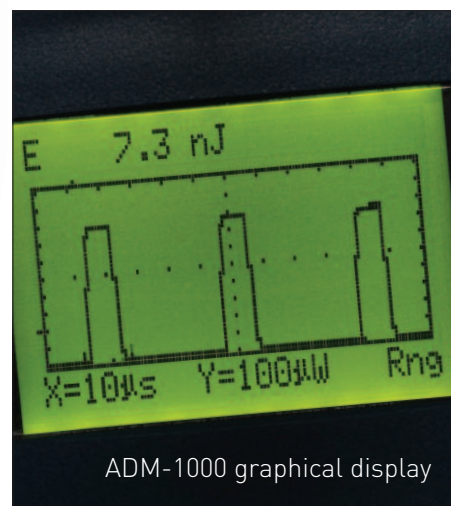
## Compact Photodiode Heads

Designed for limited spaces with no integrating sphere, this head has a depth of only 17mm.

## Thermal Heads

These have been designed with performance and ease of use in mind. They include:

- patented advanced speed-up circuitry giving a response time of 20 ms
- patented advanced integrated temperature stabilisation circuitry to massively reduce drift & thermal interference



The Advanced Digital Meter offers the following functions:

- Average and peak power measurement
- Energy per pulse measurement
- Digital and bar readout
- Graphical oscilloscope mode – displays pulse waveforms up to 400kHz with calculation cursors to display energy, power, time, frequency
- Automatic head detection
- Auto or manual ranging
- Interface to PC via USB connection
- Full illuminated numeric keypad for easy control and data entry



## Specifications

	Integrating Sphere Photodiode Head	Thermal Heads	Compact Photodiode Heads
Part No.	IPDH-10S	ITDH-100P	IPDH-10C
Wavelength Range (nm)	400 – 1100	180 – 20,000	400 - 1100
Detector Type	Si	Peltier	Si
Response Time			
(E-folding)	700 ns	20 ms	700 ns
Max Input Power	1 W	20 W	10 mW
Min Input power for Useable Reading	0.1 µW	1 mW	1 nW
Dimensions (mm)	76 Ø x 86.5 (d)	76 Ø x 86.5 (d)	64 x 41 x 17
Aperture Diameter (mm)	11	20	10