### 844-PE-USB

Virtual Optical Power and Energy Meter

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The Model 844-PE-USB is a power meter with a USB connection to use a computer as the monitor, allowing the user to access the full computing power of the computer.

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### PMManager<sup>™</sup> Application Software

PMManager<sup>™</sup> is a powerful application software controlling and taking measurement data. It turns a PC into a laser power multi-channel analysis workstation. The PMManager software features include: extensive graphic display of data, advanced measurement processing, data logging for future review, printing of

#### **Features and Benefits**

- Small form factor
- USB interface with powerful PMManager™ software
- 15 Hz Analog output, 0 1 volt
- Multiple power meters run on a single PC
- Compatible with Windows XP/7/8/10 32 & 64 bit

graphs and data, and the ability to connect additional devices during active measurements.

# Ideal for Industrial Automation and Production

The 844-PE-USB Power & Energy Meter utilizes a PC as a powerful virtual power meter control system. When the equipment space is tight or you need to control multiple power meter channels, 844-PE-USB is an ideal solution. It not only has a USB output, but it also has a 0 - 1 V analog output. Installation of the application is simple and takes care of the USB driver installation.

#### **Advanced Measurement Processing**

- Power/energy density, scale factor, normalize against a reference
- Multi-channel comparisons
- User defined mathematical equations: channels A/B, (A-B)/C etc.
- Position & size measurement with PEPS sensors

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### **Directly Access All Detector Parameters**

All detector parameters are directly accessible from PMManager. Major parameters are available on the detector information window, and further functions are available by clicking 'Functions' button.

### **Extensive Graphic Displays**

Various graphics displays are available in PMManager such as Line Plot, Histogram, Bar chart, and Simulated Analog Needle. Multiple data sets on one graph or separate graphs on the same screen are possible.

### **Data Logging for Future Reviews**

- · Can be displayed graphically or saved in text format
- Log data based on the time interval or on the number of data points
- Easily exported to an Excel spreadsheet

### COM Object

The PMManager software package also includes a COM object, which allows system integrators to integrate the measurement expertise of Newport equipment with in-house legacy analysis packages.

Demo client applications in VB.NET 2010, VC#.NET 2010, MatLab, and LabVIEW 2013 are provided with the PMManager installation and can be found in C:\Program Files\Newport\PMManager 3.xx\Automation Examples\Com object. A console application is provided as well.

Number of Channels	1		
Compatible Detectors	919P, PEPS, 918D, 818, 919E, LIAD, 819C, 819D		
Communication Interfaces	USB		
Analog Output	0-1 Volt with 0.3mV (0.03%) resolution. 100 ohms impedance		
Accuracy	$\pm 0.25\% \pm 20$ pA for thermopiles and photodiodes $\pm 0.25\%$ for pyroelectrics		
Power Requirements	USB powered		
Dimensions	80.4 x 104.0 x 29.5 mm		
CE Certified	compliant		
Weight	0.425kg		
Analog Input Range	15nA - 1.5mA full scale in 16 ranges for thermopiles and photodiodes 0 - 6V full scale for pyroelectrics		
Dynamic Range	9 decades (1:109)		
Sampling Rate	15 Hz for thermopiles and photodiodes - 10 kHz for pyroelectrics		
esolution 18 bits plus sign for thermopiles and photodiodes 12 bits no sign (0.025% resolution) for pyroelectrics			
Noise	500nV or 1.5pA + 0.0015% of input range @3Hz for thermopiles and photodiodes 2mV for pyroelectrics		

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