PowerSense™ Optical Power Meter

High-Speed, Compact, Wide-Dynamic-Range Optical Power Meter

Key Features

- Widest dynamic range with a single detector head (1 nW to 20 W)
- Integrated detector head and power meter in a single compact enclosure
- Multiple models available covering a broad spectral range, across 200 nm to 8 μm
- Fast read-out speed of typically 100 readings/second
- User-friendly control software package and programming platform via USB connection to PC
- Customisable for OEM applications

Applications

- Laser diagnostics for scientific applications
- Laser maintenance and installation
- Hand-held optical power inspection of a broad range of light sources
- Optical telecommunications

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PowerSense™ is a high-speed, compact power meter, capable of reading over the widest possible range of power levels, from 1 nanoWatt to 20 Watts, using a single detector head combined with a detachable attenuator.

PowerSense™ is offered for different spectral ranges, covering 200 - 1000 nm, 340 - 1000 nm and 800 - 1800 nm as standard products. Deep UV (from 25 nm) and longer infrared (to 8 μm) versions are available by special request.

The photodiode detector and electronics have a milisecond level response time. Readings are sent to a PC over the High-Speed USB interface. Approximately 100 transfers/second are achieved using standard USB settings.

PowerSense™ 's small footprint and low weight, render it a very portable device. The product is ideal for real-time monitoring of optical power generated by any light source, including lasers. It can be used in scientific applications, laser maintenance and installation or as a hand-held device for optical power inspection. The product has M4 and 8-32 threaded holes in its base to allow for mounting onto standard optical posts. The attenuator option has a variable iris which can be used to reduce back-reflected light. An optional optical fiber input can also be used with the system.
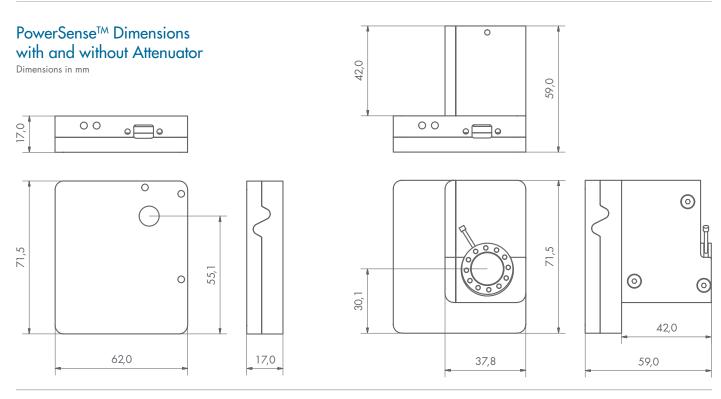
Specifications[1]

Characteristics	PowerSense™ head only	PowerSense™ with Attenuator-type L	PowerSense™ with Attenuator-type H
Input Aperture	9 mm	15 mm	15 mm
Maximum Power	1 mW	1 W	20 W
Resolution	60 pW	60 nW	1.2 μW
Size (W x L x H)	17.0 x 71.5 x 62.0 mm (0.67 x 2.81 x 2.44 inch)	59.0 x 71.5 x 62.0 mm (2.32 x 2.81 x 2.44 inch)	59.0 x 71.5 x 62.0 mm (2.32 x 2.81 x 2.44 inch)
Wavelength Range (Default option)	UV-VIS: 200 – 1000 nm VIS: 340 – 1000 nm NIR: 800 – 1800 nm		
Wavelength Range (Available on request)	Ex-IR: 900 – 2100 nm MIR: 1 – 5 μm MIR+: 3 – 8 μm DUV: 25 – 250 nm		
Readout Speed	100 reading/second via USB. Display (Optional)		
Detector Type	Low-noise photodiode		
Interface	USB2.0 with Windows Graphical User Interface and driver software. For Linux drivers, please contact Radiantis®		
Input Configuration	Free-space (Default) Fiber input (Optional)		

Footnotes

[1] Specifications are subject to change without notice

View of PowerSense™ with Attenuator

PowerSense™ Dimensions with and without Attenuator

Dimensions in mm

Address: Carrer Copèrnic, 2-4, Polígono Industrial Camí Ral, 08850 Gavà, Barcelona (Spain)
Phone: +34 936 389 763 | **E-mail:** info@radiantis.com | **Web:** www.radiantis.com

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