



LOW-POWER PHOTODETECTORS, 918D SERIES

1. Free-space and fiber optic measurements.
2. Integrated attenuator allows easy extension of measurement range, selectable from 10X to 1000X
3. Automatic thermal drift compensation
4. Calibration data electronically stored inside
5. 2m long cable allows easy integration into test systems

The 918D Series photodetector is designed to outperform Newport's industry proven 818 Series photodetector family (see [Low-Power Photodetector, 818 Series](#)), by enhancing their performance with advanced features. The optical detectors feature integrated calibration data storage, built-in OD1, OD2 or OD3 attenuation filter with electronic position sensing (attenuator On/Off), and temperature sensing electronics for temperature drift compensation, making the detector more accurate in environments with small temperature fluctuations. UV-enhanced silicon, silicon, germanium, indium gallium arsenide (InGaAs) detectors are available, covering the wavelength range from 200 to 1800 nm.

As with all other Newport photodetectors, the 918D Series include a full spectral response calibration utilizing *NIST-traceable standards* calibrated with high-precision equipment maintained in Newport's optical detector metrology facility. Each detector is shipped with its individual calibration data, which is electronically stored inside the detector's EEPROM. A certificate of calibration as well as the actual calibration curves and data are shipped with each detector for attenuator and no attenuator modes.

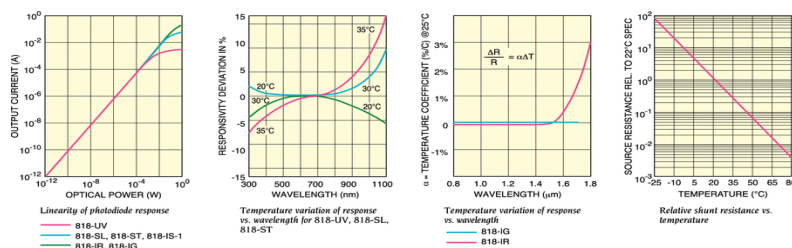
Also available are a variety of accessories such as collimating lens assemblies, fiber optic adapters and a 1" optic holder. (see [Photodiode Detector Accessories](#)).

Compatible Power Meter Models

- 916-R [Economic Portable Optical Power Meter, 1916-R](#)
- 1917-R [Handheld Laser Power Meter, 1917-R](#)
- 842-PE [Portable Optical Power Meter, 842-PE](#)
- 1918-R [Optical Power Meter, High-Performance Hand-Held, 1918-R](#)
- 1928-C [Benchtop Optical Meter, 1928-C](#)
- 1936-C/2936-C [Optical Power and Energy Meters, High Performance, 1936-C/2936-C](#)

Highest Quality Photodiodes Are Used in Newport Semiconductor Detectors

Newport uses the highest quality semiconductor detector materials available. In addition, each detector arrives with a complete full-spectrum calibration report detailing detector responsivity in 10 nm increments. Newport's advanced in-house calibration facility performs the tightest calibrations in the business, further improving the absolute accuracy of our detectors. For more information, refer to Detector Calibration Services (see [Optical Detector Calibration Services](#)).

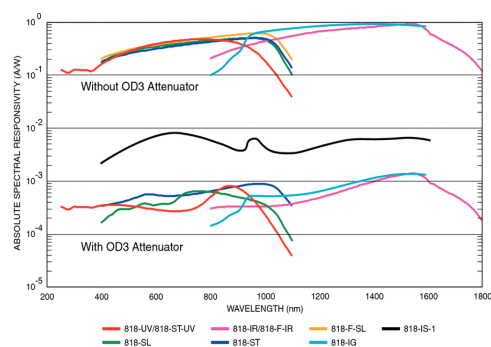


Plots of various photodiode characteristics

Low NEP (Noise Equivalent Power) with a Wide Dynamic Range

Exclusive OD3 attenuator technology extends the calibrated optical dynamic range of our cylindrical and hand held wand detectors by three decades. Our patented attenuator design provides low reflection, high damage threshold and spectral flatness, without the damage susceptibility problems of thin-film attenuators or the spectral variance of simple volume absorbing attenuators. With the low NEP associated with the photodiodes Newport is using, a wider dynamic range is achieved.

Typical spectral responsivity of Newport's low power detectors



Related Products



[1918-R](#) is the most advanced portable power meter in industry.
(Detector, post, clamp and post holder sold separately)

- For high performance benchtop optical meter, see [Optical Power and Energy Meters, High Performance, 1936-C/2936-C](#).
- For most accurate fiber optic measurement, see [Fiber Optic Detectors](#)
- For wand type detectors, see [UV/Si Detectors, Wand](#)
- For high power measurement, see [Thermopile Detector, 818P Series](#)
- For pulse measurement, see [Pyroelectric Detector Sensor, 818E Series](#)

918D-BASE-KIT



918D-BASE-KIT with mounted 918D detector.
918D-BASE-KIT has an optical axis height of 1.00" and is compatible with both Imperial and Metric table tops.