










SELECTING A CALIBRATED OPTICAL DETECTOR

Photodiode Optical Detectors

Click [Calibrated Optical Detectors](#) to shop or browse all of our standard models, or select a product series below to learn more about our products and capabilities. We also offer a complete line of [Power and Energy Meters](#).

Series		Features and Benefits
	Low-Cost Photodetectors, Entry level 818-xx-L Series Photodiode Detector Accessories	<ul style="list-style-type: none"> • Low Cost, ideal for low budget and low power applications • Power levels from pW to 3 mW • Detachable Calibration Modules • /DB suffix indicates DB15 calibration module, no /CM models
	Low-Power Photodetector, 818 Series Photodiode Detector Accessories	<ul style="list-style-type: none"> • Industry standard models with broad customer base • Power levels from pW to 3 W via a matching OD3 attenuator • Both DB15 (/DB models) and 8-pin DIN (/CM models) calibration modules available, all detachable
	Optical Power Meter, High-Performance Hand-Held, 1918-R	<ul style="list-style-type: none"> • Power levels from pW to 3 W with an integrated OD3 attenuator • Built-in thermistor for automatic thermal drift compensation • Built-in attenuator On/OFF sensor • Designed for lowest noise operation • DB15 calibration module only
	UV/Si Detectors, Wand	<ul style="list-style-type: none"> • Si and UV-enhanced Si detectors available (200 – 1100 nm) • Slim design with an integrated sliding OD3 attenuator • UV detector comes with a highly protective and rugged aluminum housing • Both DB15 (/DB models) and 8-pin DIN (/CM models) calibration modules available, all detachable
	Fiber Optic Detectors	<ul style="list-style-type: none"> • Integrating sphere design enabling the most accurate and polarization independent measurements from all fiber optic sources • Continuous measurements over the entire 400–1650 nm wavelength range • Optical power input up to 200 mW • Bare fiber and FC, ST, LC, and SC connector adapters included

Thermal detectors response slow to optical power inputs but can handle high optical power, therefore, they are suitable for measuring average power of a cw or pulsed laser. Pyroelectric detectors measure pulse energy of high power pulsed lasers with kHz or less rep rate.

Series		Features and Benefits
	Thermopile Sensor, 1 uW - 3 Watt	<ul style="list-style-type: none"> • Capable of measuring down to uW level optical power • Broadband flat spectral response from 0.19–11 um (818P-001-12) • Low thermal drift of 6 uW/C (818P-001-12NIR) • Insensitive to beam position • Carefully designed to minimize thermal drift
	Thermopile Detector, 818P Series	<ul style="list-style-type: none"> • Ideal for high power laser cw power measurement • Very high sensitivity to optical power • High damage threshold • Broadband flat spectral response from 0.19–11 um • Insensitive to beam position
	Thermopile Detector, 3 kW	<ul style="list-style-type: none"> • Measuring up to 3 kW continuous optical power • Carefully designed to reduce sensitive to cooling water temperature • Compatible with Newport power meters (requires electrical power via USB cable) • Directly linkable to a computer without a power meter
	Pyroelectric Detector Sensor, 818E Series	<ul style="list-style-type: none"> • Ideal for high pulse energy measurement from 0.19 – 11 um • High repetition rates • High damage threshold

The following table provides an easy compatibility chart for Newport's various active and obsolete optical power meters and detectors. Also see [Optical Power Meter Selection Guide](#).

Power Meter	818-xx(-L)	818-xx/CM 818-F-xx	818-xx(-L)/DB	918	918D	818P
Optical Power and Energy Meters, 1936-C/2936-C	15-Pin CM*	841-DIN	√		√	√
Benchtop Optical Meter, 1928-C						
Optical Power Meter, High-Performance Hand-Held, 1918-R						
Portable Optical Power Meter, 842-PE						
Economic Portable Optical Power Meter, 1916-R	15-Pin CM*	841-DIN	√		√	√
Handheld Laser Power Meter, 1917-R						
Virtual Optical Power Meter, 841-P-USB						
1931-C/2931-C (obsolete)	15-Pin CM*	841-DIN	√		√	
1815-C (obsolete)	√	Remove Cal Module (CM)	Remove Cal Module (CM)		818P-BNC	818P-BNC
1825-C (obsolete)	√	Remove Cal Module (CM)	Remove Cal Module (CM)		818P-BNC	818P-BNC
1835-C/2835-C (obsolete)	8-PIN CM*	√				818P-DIN
841-PE (obsolete)	8-pin CM* + 841-DIN	841-DIN				√
1930-C/2930-C (obsolete)	8-pin CM* + 818-ADAPT-OPM	818-ADAPT-OPM		√		
2832-C (obsolete)	8-pin CM*	√				
1830-C (obsolete)						
840-C (obsolete)						

Notes: √ indicates that the power meter and the optical detector combinations are directly compatible, while "blank" indicates incompatible. Otherwise, an adapter is required as mentioned in the table.

* 8-pin CM or 15-pin CM indicate that a 8-pin or a 15-pin calibration module is required, respectively. Please contact Newport to obtain one at 1-800-222-6440 or Tech@newport.com.