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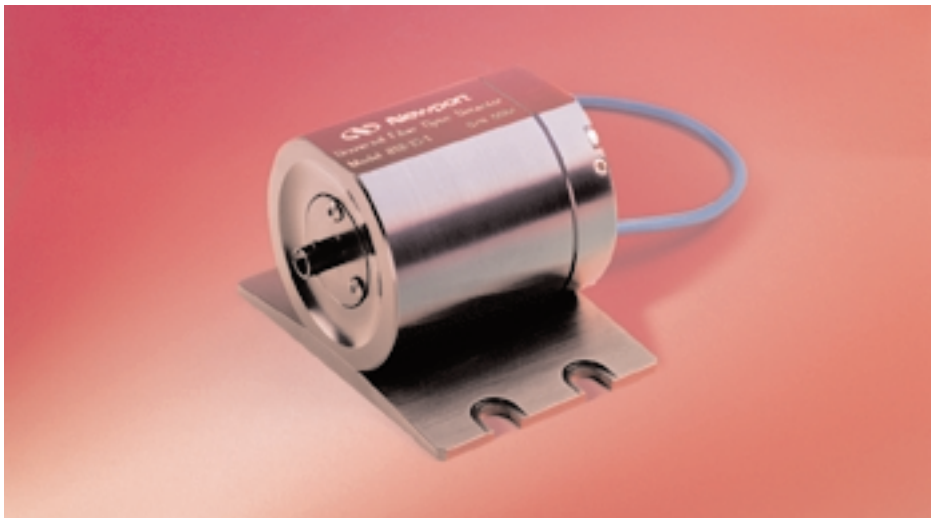
Find the *Newport 818-IS-1* at our website: ***Click HERE***

Model 818-IS-1

Universal Fiber Optic Detector

Key Features

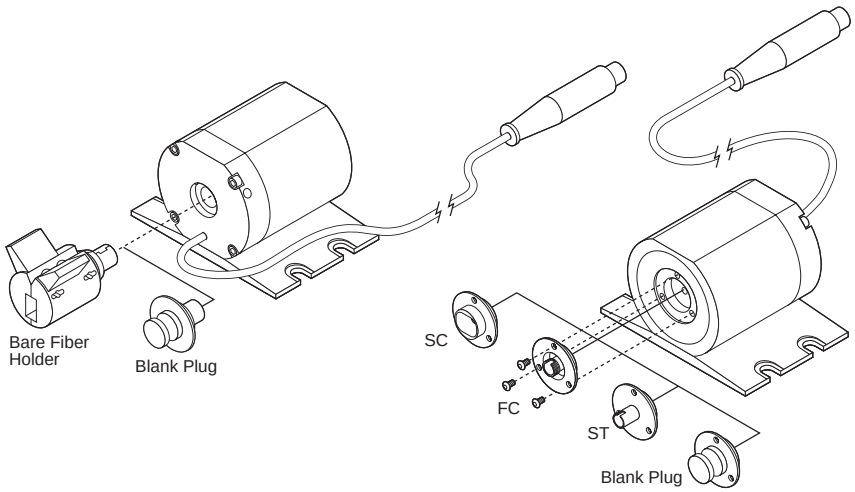
- *Integrating sphere design enables accurate and polarization independent measurements from all fiber optic sources*
- *Continuous measurements over the entire 400–1650 nm wavelength range*
- *Optical power input up to 200 mW*
- *Accepts bare fiber and FC, ST, LC, and SC terminated fiber inputs*



The Model 818-IS-1 Universal Fiber Optic Detector uses a symmetrical integrating sphere design to ensure accurate calibration, regardless of the fiber type measured. The detector uses a novel dual detector design, with special optics that improve temperature sensitivity markedly from ordinary detectors. It can be used with Newport's power meters or with the **Model 8800/8200 PTS-OPM** power meter modules (with 818-ADAPT-OPM adaptor cable).

Each detector is fully calibrated to NIST traceable standards over the wavelength range of 400–1650 nm. The calibration data is encoded in a calibration module integral to the electrical connector, which makes the 818-IS-1 compatible with all of Newport's power meters that use calibration modules.

Maximum versatility is provided by the detector's dual port design. A variety of adaptors for connector terminated fibers are provided, and plug into the detector's front port. The rear port is designed to measure light from straight and angle cleaved bare fibers, using Newport's **FP3-FH1** bare fiber holder. A complete kit of adaptors is included with each detector, together with a rugged carrying case.



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818-IS-1 Accuracy

The specified accuracy of the 818-IS-1 equals two times the root-sum-of-square of NIST's combined standard uncertainty and Newport's calibration process standard deviation. This method results in a 95% confidence level for the accuracy specified. For more information on Newport's calibration process, see page 165.



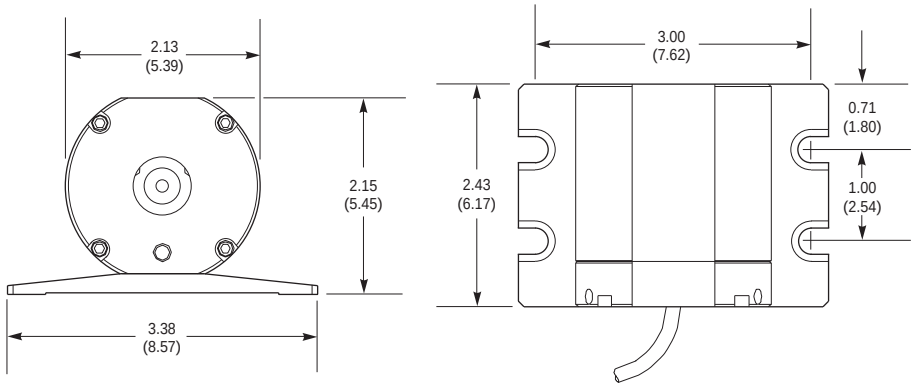
A bare fiber holder and various fiber optic connector adaptors are provided with the 818-IS-1 detector (LC adapter not shown).

Specifications

Spectral Range (nm)	400–1650
Saturation Power (mW)	>200
Saturation Energy	>1 µJ (10–15 ns pulse)
Pulse Energy, Maximum (µJ)	100
Accuracy	±2.5%
Responsivity	>0.0025 A/W (400–600 nm) >0.0040 A/W (610–1650 nm)
Rise Time (µs)	≤2
Shunt Resistance (MΩ)	≥20
Die Capacitance (pF)	800 max.
NEP @ 5 Hz and 1 A/W (pW/√Hz)	3
Material	InGaAs/Si

1) Bare fiber specification is de-rated because bare fiber end is closer to sphere's first surface

Dimensions



Ordering Information

Model	Description
818-IS-1	Universal Fiber Optic Detector

For calibrated integrated sphere based detectors for free-space light input, please see page 140.

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