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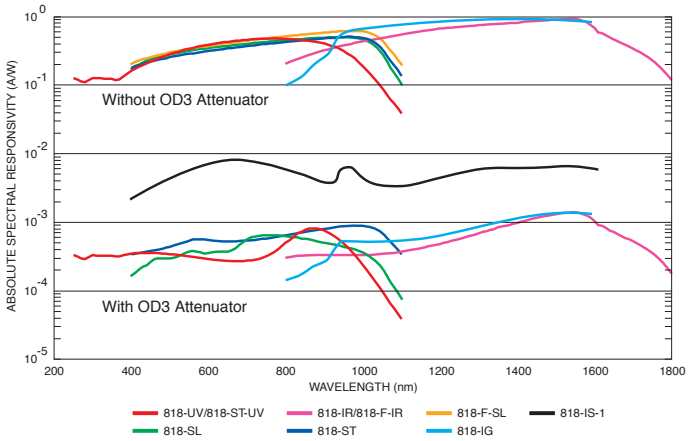
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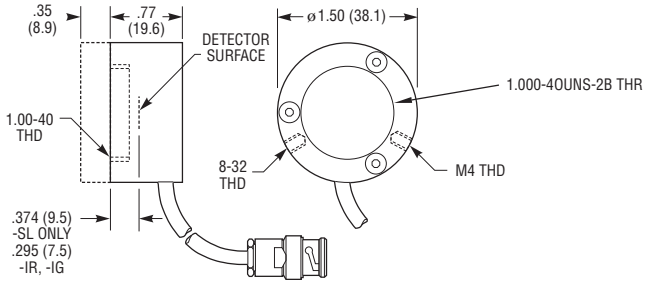
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Typical spectral responsivity of Newport's low power detectors

Specifications

Model	818-UV-L	818-SL-L	818-IR-L	818-IG-L
Spectral Range (nm)	200 to 1100	400 to 1100	780 to 1800	800 to 1650
Power, Average Maximum (mW/cm²)[1]	0.2	2	3	3
Pulse Energy, Maximum - w/o Attenuator (nJ/cm²)[2]	0.1	1	0.35	0.35
Calibration Uncertainty [3]	4% @ 200-219nm, 2% @ 220-349nm, 1% @ 350-949nm, 4% @ 950-1100nm	1% @ 400-940nm, 4% @ 941-1100nm	2% @ 780-910nm, 2% @ 911-1700nm, 4% @ 1701-1800nm	2% @ 800-900nm, 2% @ 901-1650nm
Uniformity (%)	±2			
Linearity (%)	±0.5			
Rise Time (µs)	5.9	2	2	2
Shunt Resistance (MΩ) (typ)	10	10	35 (kΩ)	20
Reverse Bias, Maximum (V)	5	3	0.25	2
NEP (pW/ÃHz)	0.45	0.2	0.6	0.04
Material	Silicon-UV Enhanced	Silicon	Germanium	Indium Gallium Arsenide
Active Area (cm²)	1		0.071	
Active Diameter (cm)	1.13		0.3	
Shape	Cylinder			

[1]Without attenuator and applies to entire spectral response
[2]15 ns pulse width
[3]Calibration uncertainty can be varied depending on the NIST transfer standard uncertainty variation.

Ordering Information

Model	Description
818-UV-L	UV Enhanced Silicon Photodetector, 200-1100 nm, BNC Connector, No Attenuator
818-SL-L	Silicon Low Power Detector, 400 to 1100 nm, BNC Connector, No Attenuator
818-IR-L	Germanium Photodetector, 780-1800 nm, BNC Connector, No Attenuator
818-IG-L	InGaAs Low Power Detector, 800 to 1650 nm, BNC Connector, No Attenuator
818-UV-L/DB	UV Enhanced Silicon Photodetector, 200-1100 nm, DB15 CAL-Module, No Attenuator
818-SL-L/DB	Silicon Photodetector, 400 to 1100 nm, DB15 Calibration Module, No Attenuator
818-IR-L/DB	Germanium Photodetector, 780-1800nm, DB15 Calibration Module, No Attenuator
818-IG-L/DB	InGaAs Photodetector, 800-1650 nm, DB15 Calibration Module, No Attenuator
883-UV	OD3 Attenuator, 818-UV-L Detector
883-SL	OD3 Attenuator, 818-SL-L Detector
883-IR	OD3 Attenuator, 818-IR-L Detector
883-IG	OD3 Attenuator, 818-IG-L Detector

The 883 Series OD3 attenuators can extend the dynamic range of a detector approximately by a factor of 1000. Due to the wavelength dependence of the attenuator, the detector is no longer calibrated when the attenuator is mounted. If it is desired that the entire dynamic range both with and without the attenuator be calibrated, please see page 1156.

Photodiode Detector Accessories



- **Increase usability of 818, 918 and 918D series detectors**
- **1" free space and fiber optic adapters**

These adapters for calibrated photodiode detector families allow the user to perform optical power measurements when working with bare and connector terminated optical fibers and with a 1" optic such as a filter and a lens. Please note that Newport does not calibrate the detectors with any of these adapters implemented in them. See Product Detail for pictures of each product. Compatible with the following photodiode detectors: see page 1152, page 1156, and page 1159.

883-OH is a general purpose 1" optic adapter, which gives the most stable optical mounting means for the Newport photodiode detector packages. Any filter or lens with up to 0.35" thickness can be accommodated. Newport's A-1.25-1RR retaining ring is included and a spare can be separately ordered.

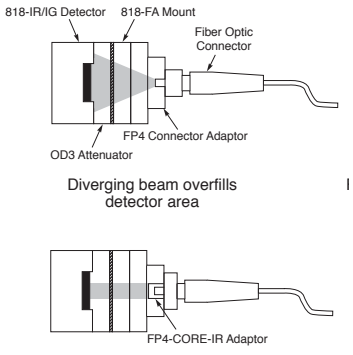
The FP3-FH1 Bare Fiber Holder is a cleverly designed fiber clamp that is used to hold 250 mm bare fibers without damaging it. It in turn plugs into the 818-FA2 Bare Fiber Holder Mount, which allows one to attach the assembly to the front end of the detector housing.

FP3/FP4 Series Connector Adapters accommodate optical fibers terminated in the most popular fiber optic connector styles: SMA, ST, FC, SC and LC. The adapters are attached to the 818-FA Fiber Adapter Mount with two screws, allowing for easier insertion and unplugging of fiber optic connectors.

The FP4-CORE adapters are recommended if the insertion loss of the fiber is a concern in measurements. Index matching gel can be applied between the fiber tip and the adapter window, while the other side facing towards the photodiode has an AR coating. When working with our germanium and InGaAs detectors whose active area is relatively small, we recommend using an FP4-CORE-IR. It collimates the light emerging from the fiber tip to prevent detector overfill with an integrated GRIN lens. The coating is optimized for 1000–1550 nm.

FP4-CORE-VIS/NIR Adaptor Cores do not contain collimating optics, and are suitable only for use with our large area detectors. The modularity of the FP4-CORE Series allows quick interchangeability into the various FP4 Series fiber connector adapters. Note that the FP4 cores cannot be used with the FP3-SMA connector adaptor.





FP4-CORE-IR collimates beam onto small area detector, even with use of OD3 attenuator

Ordering Information

Model	Description
818-FA2	Bare Fiber Holder Mount for Photodiode Detector
FP3-FH1	Bare Fiber Holder for Photodiode Detector (Use with 818-FA2)
818-FA	Connectorized Fiber Adaptor Mount for Photodiode Detector
FP3-SMA	SMA Connector Adaptor, 818-FA Fiber Adapter Mount (Not compatible with FP4-CORE-XXX)
FP4-ST	ST Connector Adaptor, 818-FA Fiber Adapter Mount
FP4-LC	LC Connector Adapter, 818-FA Fiber Adapter Mount
FP4-FC	FC Connector Adaptor, 818-FA Fiber Adapter Mount
FP4-SC	SC Connector Adaptor, 818-FA Fiber Adapter Mount
FP4-CORE-VIS	Adaptor Core, 430 to 700 nm AR Coated, Photodiode Detector
FP4-CORE-NIR	Adaptor Core, 650 to 1000 nm AR Coated, Photodiode Detector
FP4-CORE-IR	Lensed Adaptor Core, 1000 to 1550 nm AR Coated, Photodiode Detector
883-OH	1 in. Optic Holder for Photodiode Detector

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