PD-11 series

https://www.gigahertz-optik.com/en-us/product/PD-11-Serie

Product tags: VIS , NIR

Description

Cost Effective Application Solution

The PD-11 series detectors are designed as modular light detectors to be combined with integrating spheres, optics, filters and mechanical components to configure complete light detection assemblies. Their mechanical interface makes mounting or adding other components easy and flexible.

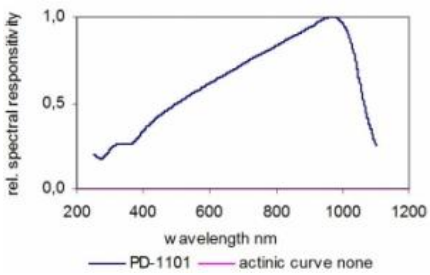
Detectors for use with Integrating Spheres

The PD-11 series detectors with a housing diameter of only 11mm are compact in size and fit directly onto the DP-11 detector port of the UP series integrating spheres or can be mounted to most Gigahertz-Optik integrating spheres using the UMPA-0.5/11 port adapter.

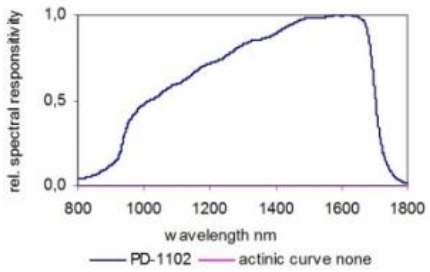
Traceable Calibration

Optional calibration is available by Gigahertz-Optik's Calibration Laboratory for Optical Radiation Quantities.

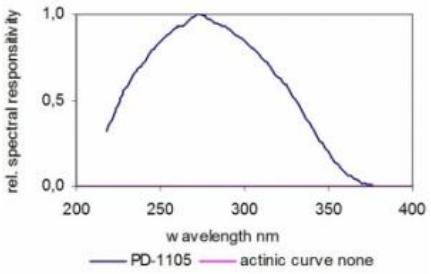
PD-1101 with Compact Size Integrating Sphere



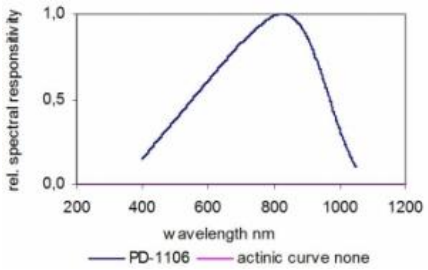
PD-1101 Typical Spectral Responsivity Si Photodiode



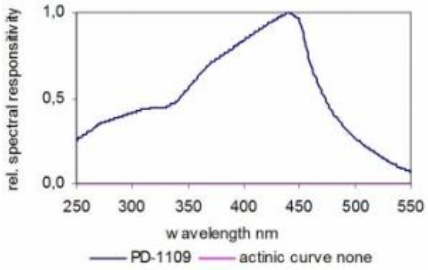
PD-1102, PD-1103, PD-1104 Typical Spectral Responsivity. InGaAs Photodiode



PD-1105 Spectral Responsivity SiC Photodiode



PD-1106, PD-1107, PD-1108 Typical Spectral Responsivity. Low-profile Si Photodiode



PD-1109 Typical Spectral Responsivity GaP Photodiode

Specifications

	Specification	
PD-1101		
	Spectral Response	UV Enhanced Si 250 nm - 1100 nm
	Sensing Area	13 mm², 3.6 mm x 3.6 mm
	Typical Responsivity	0.15 A/W @ 350 nm 0.5 A/W @ 900 nm
	Max. signal current	1 mA
	Min. signal current	depends on optometer
	response time	0.5 µs
	Temperature range	(5 - 40) °C
	Cable Length	2 m
	Plug Type	-1,-2,-4

PD-1102		
	Spectral Response	InGaAs 800 nm -1800 nm
	Sensing Area	0.07 mm², 0.3 mm Ø
	Typical Responsivity	0.85 A/W @ 1350 nm 0.95 A/W @ 1500 nm
	Max. signal current	1 mA
	Min. signal current	depends on optometer
	Rise time	0.875 ns
	Temperature range	(5 - 40) °C
	Cable Length	2 m
	Plug Type	-1,-2,-4
PD-1103		
	Spectral Response	InGaAs 800 nm - 1800 nm
	Sensing Area	0.79 mm², 1 mmØ
	Typical Responsivity	0.85 A/W @ 1350 nm 0.95 A/W @ 1500 nm
	Max. signal current	1 mA
	Min. signal current	depends on optometer
	Rise time	10 ns
	Temperature range	(5 - 40) °C
	Cable Length	2 m
	Plug Type	-1,-2,-4
PD-1104		
	Spectral Response	InGaAs 800 nm - 1800 nm
	Sensing Area	7.1 mm², 3 mmØ
	Typical Responsivity	0.85 A/W @ 1350 nm 0.95 A/W @ 1500 nm
	Max. signal current	1 mA
	Min. signal current	depends on optometer
	rise time	0,175 µs
	Temperature range	(5 - 40) °C
	Cable Length	2 m
	Plug Type	-1,-2,-4
PD-1105		
	Spectral Response	SiC 215 nm - 360 nm
	Sensing Area	1.55 mm², 1.25 mm x 1.25 mm
	Typical Responsivity	0.16 A/W @ 270 nm
	Max. signal current	50 µA
	Rise time	typ. 880 ns
	Min. signal current	depends on optometer
	Temperature range	(5 - 40) °C
	Cable Length	2 m
	Plug Type	-1,-2,-4
PD-1109	Spectral Response	GaP 250 nm - 550 nm
	Sensing Area	4.8 mm², 2.2 mm x 2.2 mm
	Typical Responsivity	0.4 A/W @ 445 nm
	Max. signal current	0.1 mA
	Min. signal current	depends on optometer
	Rise time	10 µs
	Temperature	(5 - 40) °C
	Cable Length	2 m
	Plug Type	-1,-2,-4

PD-1112		
	Spectral Response	GaAsP 200 nm - 680 nm
	Sensing Area	5.2 mm², 2.3 mm x 2.3 mm
	Typical Responsivity	0.035 A/W @ 254 nm 0.17 A/W @ 560 nm 0.17 A/W @ 633 nm
	Max. signal current	1 mA
	Min. signal current	depends on optometer
	Rise time	3.5 µs
	Temperature	(5 - 40) °C
	Cable Length	2 m
	Plug Type	-1,-2,-4
PD-1113		
	Spectral Response	GaAsP 400 nm - 760 nm
	Sensing Area	7.3 mm², 2.3 mm x 2.3 mm
	Typical Responsivity	0.22 A/W @ 560 nm 0.29 A/W @ 633 nm
	Max. signal current	1 mA
	Min. signal current	depends on optometer
	Rise time	1 µs
	Temperature range	(5 - 40) °C
	Cable Length	2 m
	Plug Type	-1,-2,-4
PD-1115		
	Spectral Response	Si PIN 400 nm - 1050 nm
	Sensing Area	Ø 0,8 mm
	Typical Responsivity	0,5 A/W @ 900 nm
	Max. signal current	1 mA
	Min. signal current	depends on optometer
	Response time	0.7 ns
	Temperature range	(5 - 40) °C
	Cable Length	2 m
	Plug Type	-1,-2,-4

Configurable with

Produktname	Product Image	Description	Show product
P-9710		High-quality device for measurement of CW-, single pulse and modulated radiation. Features: Optometer for all detector heads with calibration data plug. Measurement modes: CW, pulse energy, dose, peak-to-peak, effective luminous intensity (Blondel-Rey), data logger, battery, main power, RS232	https://www.gigahertz-optik.com/en-us/product/P-9710
X1		Four-channel USB optometer designed for mobile use. Features: Compact device for use with all photometric, radiometric, colorimetric, plant-physiologic and photo-biologic measurement heads from Gigahertz-Optik. USB interface. Battery operation or power supply USB.	https://www.gigahertz-optik.com/en-us/product/X1

Produktname	Product Image	Description	Show product
X1-RM		Optometer in 3HE housing for use in 19” racks. Features: Its USB and RS232 remote interface and two additional RS232 device interfaces make the device highly flexible when it comes to system integration. Its four signal inputs enable use with all photometric, radiometric, colorimetric, plant-physiologic and photo-biologic measurement heads from Gigahertz-Optik.	https://www.gigahertz-optik.com/en-us/product/X1-RM
X1-PCB		Optometer module. Feature: The X1 optometer is available as a printed circuit board either with or without a housing and is suited for applications that do not require a keyboard or display. Four signal inputs enable connection with all measuring heads from Gigahertz-Optik.	https://www.gigahertz-optik.com/en-us/product/X1-PCB
P-2000		Two-channel optometer. Features: For use with most photometric and radiometric detectors supplied by Gigahertz-Optik. Modes: CW, pulse energy from both single and multiple flashes, effective luminous intensity (Blondel-Rey), data logger and others.	https://www.gigahertz-optik.com/en-us/product/P-2000
P-9801		Eight-channel optometer. Features: State-of-the-art 8 channel laboratory optometer with a signal amplifier and sample & hold ADC per channel for clocked recording of the measurement signals. RS232 and IEEE488 interface. Trigger input and output.	https://www.gigahertz-optik.com/en-us/product/P-9801
P-9202-4		Fast response time trans-impedance signal amplifier. Features: High quality analogue amplifier with current-voltage conversion. Minimal diode offset voltage for short circuit operations. Bandwidths of up to 330kHZ. 1µs rise time. Large I-U amplification range from 10pA/V to 1mA/V.	https://www.gigahertz-optik.com/en-us/product/P-9202-4
P-9202-5		Universal trans-impedance signal amplifier. Features: High quality analogue amplifier with current-voltage conversion. Minimal diode offset voltage (1mV) for short circuit photodiode operations. 5µs to 20ms rise time depending on the amplification. Large I-U amplification range – 1×10-10A/V to 1×10-3 A/V.	https://www.gigahertz-optik.com/en-us/product/P-9202-5
P-9202-6		Highly sensitive trans-impedance signal amplifier. Features: High quality analogue amplifier with current-voltage conversion with minimal diode offset voltage (0.5mV) for short circuit photodiode operation of . 2.5s to 25s rise time depending on the amplification. Large I-U amplification range – 1×10-11A/V to 1×10-4 mA/V.	https://www.gigahertz-optik.com/en-us/product/P-9202-6
UMPA-0.5/11		Port adapter for use with UMPF-0.5 port frame of the UM series modular construction integrating spheres. Features: To attach TD-11, PD-11 or VL-11 detectors and UFC-11 fiber connectors. Optional diffuser window.	https://www.gigahertz-optik.com/en-us/product/UMPA-0.5-11
UPK-30-L		Integrating spheres with precise machined housings. Features: 1.18 in / 30 mm dia sphere. 5mm dia measurement port. Detector port. 98% synthetic coating.	https://www.gigahertz-optik.com/en-us/product/UPK-30-L

Produktname	Product Image	Description	Show product
UPK-30S60-L		Integrating spheres with precise machined housings. Features: 1.18 in / 30 mm dia 60 mm long streched sphere for side emitting fibers. 2mm dia measurement port. Detector port. 98% synthetic coating.	https://www.gigahertz-optik.com/en-us/product/UPK-30S60-L
UPK-30S105-L		Integrating spheres with precise machined housings. Features: 1.18 in / 30 mm dia 105 mm long streched sphere for side emitting fibers. 2mm dia measurement port. Detector port. 98% synthetic coating.	https://www.gigahertz-optik.com/en-us/product/UPK-30S105-L
UPK-50-L		Integrating spheres with precise machined housings. Features: 2 in / 50 mm dia sphere. 10 mm dia measurement port. Detector port. 98% synthetic coating.	https://www.gigahertz-optik.com/en-us/product/UPK-50-L
UPK-50-F		Integrating spheres with precise machined housings. Features: 2 in / 50 mm dia sphere. 10 mm dia measurement port. +8 and -8° ports with plugs. Detector port. 98% synthetic coating.	https://www.gigahertz-optik.com/en-us/product/UPK-50-F
UPK-100-L		Integrating spheres with precise machined housings. Features: 4 in / 100 mm dia sphere. 15 mm dia measurement port. Detector port. 98% synthetic coating.	https://www.gigahertz-optik.com/en-us/product/UPK-100-L
UPK-100-F		Integrating spheres with precise machined housings. Features: 4 in / 100 mm dia sphere. 15 mm dia measurement port. +8°, -8° and 0° ports with plugs. Detector port. 98% synthetic coating.	https://www.gigahertz-optik.com/en-us/product/UPK-100-F

Purchasing information

Article-Nr	Modell	Description
Product		
100482	PD-1101 (-1 Con.)	Detector without Calibration
100483	PD-1101 (-2 Con.)	Detector without Calibration
100484	PD-1101 (-4 Con.)	Detector without Calibration
100811	PD-1102 (-1 Con.)	Detector without Calibration
15296996	PD-1102 (-2 Con.)	Detector without Calibration
15296997	PD-1102 (-4 Con.)	Detector without Calibration

Article-Nr	Modell	Description
100845	PD-1103 (-1 Con.)	Detector without Calibration
15296998	PD-1103 (-2 Con.)	Detector without Calibration
15296999	PD-1103 (-4 Con.)	Detector without Calibration
100846	PD-1104 (-1 Con.)	Detector without Calibration
15297000	PD-1104 (-2 Con.)	Detector without Calibration
15297001	PD-1104 (-4 Con.)	Detector without Calibration
101275	PD-1105 (-1 Con.)	Detector without Calibration
15297002	PD-1105 (-2 Con.)	Detector without Calibration
15297003	PD-1105 (-4 Con.)	Detector without Calibration
	PD-1106 (-1 Con.)	Detector without Calibration (Discontinued)
	PD-1106 (-2 Con.)	Detector without Calibration (Discontinued)
	PD-1106 (-4 Con.)	Detector without Calibration (Discontinued)
	PD-1107 (-1 Con.)	Detector without Calibration (Dicsontinued)
	PD-1107 (-2 Con.)	Detector without Calibration (Discontinued)
	PD-1107 (-4 Con.)	Detector without Calibration (Discontinued)
	PD-1108 (-1 Con.)	Detector without Calibration (Discontinued)
	PD-1108 (-2 Con.)	Detector without Calibration (Discontinued)
	PD-1108 (-4 Con.)	Detector without Calibration (Discontinued)
101172	PD-1109 (-1 Con.)	Detector without Calibration
15297010	PD-1109 (-2 Con.)	Detector without Calibration
15297011	PD-1109 (-4 Con.)	Detector without Calibration
15297355	PD-1112 (-1 Con.)	Detector without Calibration
15297356	PD-1112 (-2 Con.)	Detector without Calibration
15297357	PD-1112 (-4 Con.)	Detector without Calibration
15308939	PD-1115 (-1 Con.)	Detector without calibration
15308940	PD-1115 (-2 Con.)	Detector without calibration
15308941	PD-1115 (-4 Con.)	Detector without calibration
Calibration		
15299990	KDW-S1-02	Calibration of the spectral responsivity in A/W from 250 to 1100nm or spectral responsivity range of detector in calibration (min. sensing area size is required)
15300584	KDW-S1-03	Calibration of the spectral responsivity in A/W from 800 to 1800nm (min. sensing area size is required)