

PD-9304

<http://www.gigahertz-optik.de/en-us/product/PD-9304>

Product tags: VIS , NIR



Description

Modular detector

Some photometric application areas require measurement devices whose application potential is as flexible and diverse as possible. Through the PD-9304, Gigahertz-Optik offers a Si-photodiode detector for Laser power which can be modified for photometric and radiometric measurements using its exchangeable filters.

Si-photodiode detector

The high quality Si-photodiode of the PD-9304 has a 1cm² large photosensitive surface. Its spectral responsivity is calibrated in 10nm steps from 400 to 1100nm. This detector is thus ideal for measurement of monochromatic Radiation e.g. very low power Lasers .

Photometric detector

With the PD-93-VL exchangeable filters and the PD-93-COS diffuser window, the PD-9304 can be modified to form a photometric detector. The $V(\lambda)$ matching of the luminous flux measurement head generally corresponds to the DIN-5032-T7 quality class B. Calibrations are also optionally offered.

Radiometric module detector

With the PD-93-RW exchangeable filter, the PD-9304 can be modified to form a radiometric detector for the spectral range between 400 and 1100nm. Calibrations are also optionally offered.

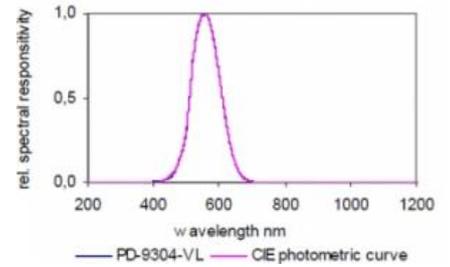
Use with all optometers

The detector can be combined with all optometers and light meters from Gigahertz-Optik.

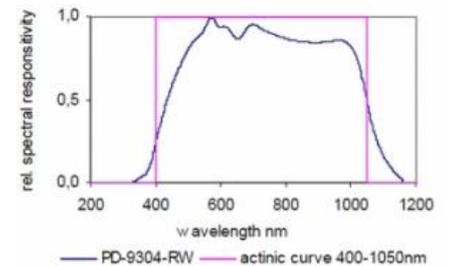
Traceable calibration

The PD-9304 module detector can be calibrated in terms of its absolute spectral responsivity of the photodiode as well as the absolute illuminance and radiometric responsivity and relative spectral responsivity of the photodiode with add-on filter. Calibrations are performed by the Gigahertz-Optik calibration laboratory for optical radiation measurands. The calibrations are documented in an individually compiled calibration certificate. The design and contents of the calibration certificate are in accordance with the ISO 17025 specifications.

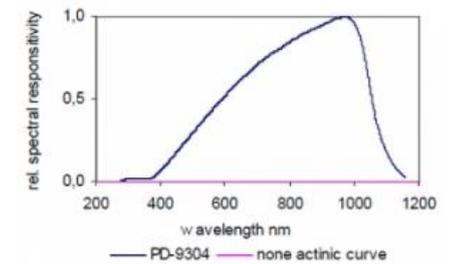
Specifications



typical responsivity with optional $V(\lambda)$ filter



typical responsivity with optional radiometric correction filter



typical bare Si-photodiode spectral responsivity

Specification

Model	PD-9304
Sensor	Si-photodiode with 100 mm ² (11.28 mmØ) photosensitive surface
spectral responsivity	Si photodiode
typical responsivity	0.4 A/W @ 633nm
Max. signal current	1 mA
temperature range	(5 - 40) °C
Calibration	Spectral responsivity in A/W in 10 nm steps from 400 nm - 1050 nm
Connector	BNC socket, 2m coaxial adapter cable, version -1, -2 and -4 plugs
Housing	37mmØ, 1.3/16-24-UNS front thread, lateral M6 and 1/4-20 bores
min. signal current	depends on optometer

Options

Illuminance	PD-9304 with PD-93-VL and PD-93-COS
Irradiance	PD-9304 with PD-93-RW

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	http://www.gigahertz-optik.de/en-us/product/P-9710
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.	http://www.gigahertz-optik.de/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.	http://www.gigahertz-optik.de/en-us/product/P-9801
P-9802		Light meter for laboratory use with up to 36 measurement heads. Features: For use with up to 36 photometric and/or radiometric measurement heads. RS232 interface.	http://www.gigahertz-optik.de/en-us/product/P-9802

Produktname	Product Image	Description	Show product
P-9202-4		<p>Fast response time trans-impedance signal amplifier.</p> <p>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.</p>	http://www.gigahertz-optik.de/en-us/product/P-9202-4
P-9202-5		<p>Universal trans-impedance signal amplifier.</p> <p>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 1×10⁻³A/V.</p>	http://www.gigahertz-optik.de/en-us/product/P-9202-5
P-9202-6		<p>Highly sensitive trans-impedance signal amplifier.</p> <p>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.</p>	http://www.gigahertz-optik.de/en-us/product/P-9202-6
PMS		<p>Post stands for light detectors.</p> <p>Features: modular construction system. Adjustable heights.</p>	http://www.gigahertz-optik.de/en-us/product/PMS
SRT front adapters		<p>Screw adapter tubes with M30x1 threaded connection.</p> <p>Features: For use with 37mm type detectors. Field of view limitation.</p>	http://www.gigahertz-optik.de/en-us/product/SRT

Purchasing information

Article-Nr	Modell	Description
Product		
100171	PD-9304-1	Module detector, 2m cable with BNC socket and plug, calibration certificate
101281	PD-9304-2	Module detector, 2m connection cable with BNC socket and calibration data plug, calibration certificate
101745	PD-9304-4	Module detector, 2m connection cable with BNC socket and ITT plug, calibration certificate
100180	PD-93-VL	V(λ) correction filter in holder
100182	PD-93-COS	Diffuser window in holder for PD-9304 with PD-93-VL filter
100181	PD-93-RW	Radiometric correction filter in holder
Calibration		
15300657	KDW-P2-01	Calibration of the illuminance responsivity in A/lx @2856K and 1800lx (PD-9304 + PD-93-VL + PD-93-COS), calibration certificate

Article-Nr	Modell	Description
15300579	K-VIS-SR	Calibration of the relative spectral responsivity from 380-780nm (PD-9304 + PD-93VL + PD-93COS)
15300650	KDW-R2-01	Calibration of the irradiance responsivity in A/(W/m ²) 400-1050nm (PD-9304 + PD-93RW)
15300580	K-Si-SR	Calibration of the relative spectral responsivity from 400-1100nm (PD-9304)