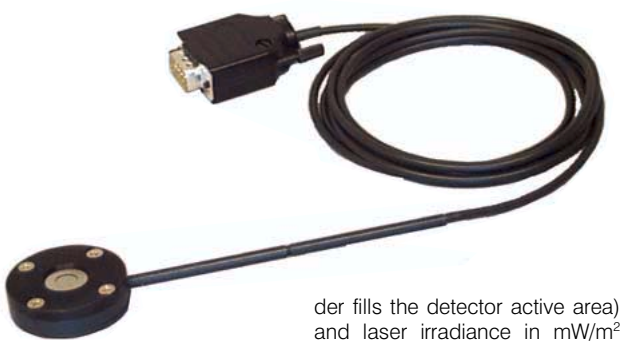
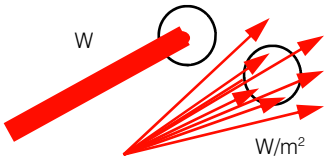
Gigahertz-Optik

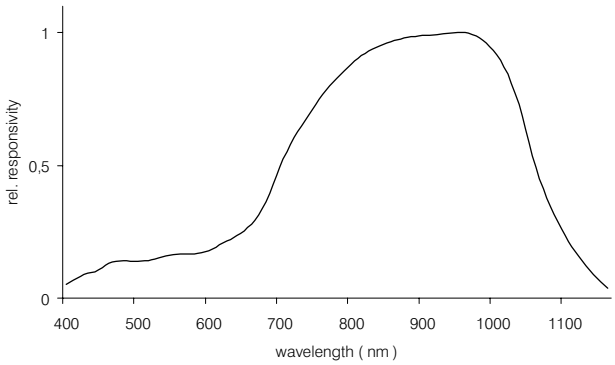
Laser Stray Light / Laser Power

LP-9901: Laser Power and Laser Stray Light Detector





The LP-9901 Detector is designed to measure both laser power in W (the laser beam under fills the detector active area) and laser irradiance in mW/m² (the laser beam overfills the detector active area).
The measurement aperture has a diameter of 7 mm which correlates to the maximum size of the eye's pupil.
The LP-9901 offers a dynamic range from 0.1 µW to 100 mW (at 662.8 nm) for power measurement, and 0.0026 µW/cm² to 260 mW/cm², for the determination of maximum permissible exposure. The low profile detector can be securely held in the laser beam with a rigid 100 mm long detector handle built around the cable and connects to the optometer by a 2 m long cable with appropriate plug type.
Calibration of spectral sensitivity from 400 to 1100 nm is performed in 10 nm increments. Calibration is carried out at Gigahertz-Optik's Calibration Lab and is confirmed by a works certificate.



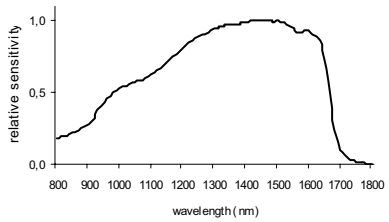
Ordering Information & typical Specifications											
Model	λresp	Wavelength Range	Typical Sensitivity		ϕmax		cable	Imax.	Operation Temp.	plug	package
	Photodiode		633 nm	900 nm	633 nm	900 nm	m	mA			page
LP-9901	Si & ND Filter	400-1100 nm	1.3 mA/W	20 mA/W	100 mW	50 mW	2	1	0-40°C	1,2,4	91
K-LP9901	Calibration of spectral radiant power sensitivity in A/W nm and calculated spectral irradiance sensitivity A/W/m²										
KDW-S1	Calibration of spectral radiant power sensitivity at one or multiple wavelengths in combination with accessory components										

LP-01 & LP-02: Radiant Power Detectors with OP.DI.MA. Integrating Sphere

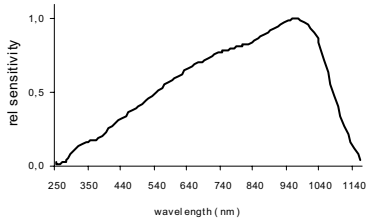
LP-0101 & LP-0103 with FC adapter

LP-0201

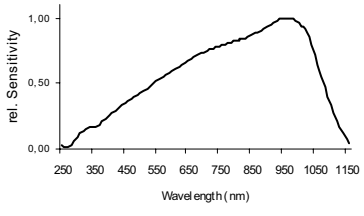
LP-01 detectors are designed for laser power and general optical power measurements in telecommunication testing systems. **Using an integrating sphere** as a light collector enables small size, high shunt resistance photodiodes providing high sensitivity and fast rise time to be used. As a result of multiple diffuse reflectance, integrating spheres can reduce polarization effects, beam misalignment risk, signal bounce-back and PTD saturation. The machined OP.DI.MA. (optically diffuse material) spheres offer the highest reflectance (low attenuation) and longest term stability currently available. The **LP-0101, LP-0102 and LP-0103** are built around a 30 mm diameter sphere with a 5 mm measurement aperture. A unique Gigahertz-Optik baffle design offers a large light acceptance angle with no risk of direct detector irradiation.
The **LP-0201** employs an 8 mm diameter ODM integrating sphere with a 2 mm measurement port diameter for lowest attenuation. A low profile fast Si photodiode is used enabling a very short rise time.
Common features include:
Diode array spectrometer can be coupled to an additional detector port with SMA-type fiber connector.
Open port configuration is standard for direct measurement of laser diodes, LEDs or lasers.
Fiber connector adapters for FC, SC, ST and SMA connectors are available for the 30 mm sphere measurement port.
Calibration of spectral radiant power sensitivity in A/W nm is offered within the sensitivity range of each detector.



Typical spectral sensitivity LP-0101



Typical spectral sensitivity LP-0103



Typical spectral sensitivity LP-0201