

# LDM-9901

<https://www.gigahertz-optik.de/en-us/product/LDM-9901>

**Product tags:** VIS , Detector , DIN 5032 , Photometry



# Description

## Precise and easy to use

The extremely compact LDM-9901 luminance measurement head has a fixed 1.1° measurement field angle at measurement distances starting from 0.4m to infinity. Its 5% photometric matching corresponds to the DIN 5032 quality class B.

## Measurement field aim over notch and bead sight

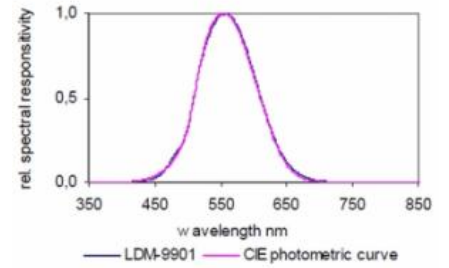
Measurement field focusing with the LDM-9901 luminance detector head is done by aim over notch and bead sight for three different measurement distance ranges. .

## Minimal scattered light

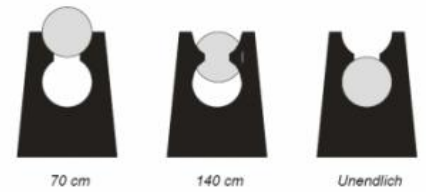
Since the LDM-9901 does not have any viewing optics inside, its internal scattered light is very minimal. It is therefore well suited for measurement of low luminance levels in measurement fields with higher ambience luminance.

## Traceable calibration

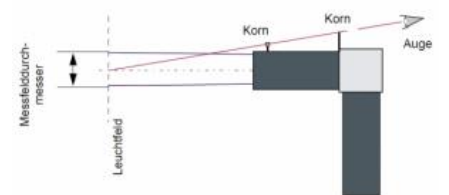
The calibration of the luminance responsivity is performed by Gigahertz-Optik's calibration laboratory for optical measurands. The calibration certificate contains all the information as stipulated by the ISO 17025 specifications.



typical spectral responsivity



Simple measurement field focusing using notch and bead sight for three measurement distance ranges



fix using rear and front sights



LDM-99Z-01 adapter for tripod mounting



LDM-99Z-01 tripod mount  
(optional)



LDM-99Z-02 lens hood

## Specifications

### Calibration

Calibration K-LDM9901-I	Calibration of the illuminance responsivity in A/lx using a halogen calibration lamp with a color temperature of 2856 K and 1600 lx.
Calibration K-VIS-SR	Calibration of the relative spectral responsivity in the visible spectral range










### Specification

Spectral function	photometric $V(\lambda)$
$V(\lambda)$ matching error	$f1 \leq 5 \%$
Typ. Responsivity	25 pA/(cd/m <sup>2</sup> )
Max. signal current	1 mA
Field of View	1.1°
Measurement entrance	22 mm Ø lens
Alignment	Notch and Bead Sight

### Miscellaneous

Connection cable	coaxial cable 2m Long, with BNC (-1), calibration data (-2) or ITT (-4) connector
Operation temperature	(5 - 40) °C

## Configurable with

Produktname	Product Image	Description	Show product
P-9710		<p>High-quality device for measurement of CW-, single pulse and modulated radiation.</p> <p>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</p>	<a href="https://www.gigahertz-optik.de/en-us/product/P-9710">https://www.gigahertz-optik.de/en-us/product/P-9710</a>
X1		<p>Four-channel USB optometer designed for mobile use.</p> <p>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.</p>	<a href="https://www.gigahertz-optik.de/en-us/product/X1">https://www.gigahertz-optik.de/en-us/product/X1</a>
X1-RM		<p>Optometer in 3HE housing for use in 19" racks.</p> <p>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.</p>	<a href="https://www.gigahertz-optik.de/en-us/product/X1-RM">https://www.gigahertz-optik.de/en-us/product/X1-RM</a>
X1-PCB		<p>Optometer module.</p> <p>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.</p>	<a href="https://www.gigahertz-optik.de/en-us/product/X1-PCB">https://www.gigahertz-optik.de/en-us/product/X1-PCB</a>
P-2000		<p>Two-channel optometer.</p> <p>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.</p>	<a href="https://www.gigahertz-optik.de/en-us/product/P-2000">https://www.gigahertz-optik.de/en-us/product/P-2000</a>
P-9801		<p>Eight-channel optometer.</p> <p>Features: State-of-the-art 8 channel laboratory optometer with a signal amplifier and sample &amp; hold ADC per channel for clocked recording of the measurement signals. RS232 and IEEE488 interface. Trigger input and output.</p>	<a href="https://www.gigahertz-optik.de/en-us/product/P-9801">https://www.gigahertz-optik.de/en-us/product/P-9801</a>
P-9802		<p>Light meter for laboratory use with up to 36 measurement heads.</p> <p>Features: For use with up to 36 photometric and/or radiometric measurement heads. RS232 interface.</p>	<a href="https://www.gigahertz-optik.de/en-us/product/P-9802">https://www.gigahertz-optik.de/en-us/product/P-9802</a>
TR-9600		<p>High-speed 1µs or 100ns rise time data logger optometer.</p> <p>Features: Laboratory device for recording of clocked intensity progress readings in single light flashes, flash sequence or modulated light. Calculation of pulse data e.g. peak intensity, pulse length, pulse half width, pulse energy and pulse repeat rate, etc.</p>	<a href="https://www.gigahertz-optik.de/en-us/product/TR-9600">https://www.gigahertz-optik.de/en-us/product/TR-9600</a>
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>	<a href="https://www.gigahertz-optik.de/en-us/product/P-9202-4">https://www.gigahertz-optik.de/en-us/product/P-9202-4</a>

Produktname	Product Image	Description	Show product
P-9202-5		<p>Universal trans-impedance signal amplifier.</p> <p>Features: High quality analogue amplifier with current-voltage conversion. Minimal diode offset voltage (1 mV) for short circuit photodiode operations. 5µs to 20ms rise time depending on the amplification. Large I-U amplification range – 1×10<sup>-10</sup>A/V to 1×10<sup>-3</sup> A/V.</p>	<a href="https://www.gigahertz-optik.de/en-us/product/P-9202-5">https://www.gigahertz-optik.de/en-us/product/P-9202-5</a>
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<sup>-11</sup>A/V to 1×10<sup>-4</sup> mA/V.</p>	<a href="https://www.gigahertz-optik.de/en-us/product/P-9202-6">https://www.gigahertz-optik.de/en-us/product/P-9202-6</a>
PMS		<p>Post stands for light detectors.</p> <p>Features: modular construction system. Adjustable heights.</p>	<a href="https://www.gigahertz-optik.de/en-us/product/PMS">https://www.gigahertz-optik.de/en-us/product/PMS</a>
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>	<a href="https://www.gigahertz-optik.de/en-us/product/SRT">https://www.gigahertz-optik.de/en-us/product/SRT</a>

## Purchasing information

Article-Nr	Modell	Description
<b>Product</b>		
100076	LDM-9901-1	Detector head with -1 connector, calibration certificate
101710	LDM-9901-2	Detector head with -2 connector, calibration certificate
15297135	LDM-9901-4	Detector head with -4 connector, calibration certificate
<b>Re-calibration</b>		
15300377	K-LDM9901-I	Re-calibration of the luminance responsivity
15300579	K-VIS-SR	Re-calibration of the relative spectral responsivity
<b>Accessories</b>		
100138	LDM-99Z-01	Adapter for tripod mounting. Integrated level
100674	LDM-99Z-02	Lens hood