LDM-9810

http://www.gigahertz-optik.de/en-us/product/LDM-9810

Product tags: VIS

Description

Precision luminance detector head

For the measurement of spot luminance, Gigahertz-Optik GmbH offers the LDM-9810 viewfinder optics that can be combined with the PD-16VL01 photometer detector.

Adjustable measurement field angles

The luminance detector head has 3 adjustable measurement field angles with 20 minutes, 1 degree and 6 degrees which can be setup at the same measurement distance.

High-quality focusable lens with viewfinder

The LDM-9810 viewfinder has a high-quality, chromatically corrected lens. The measurement distance ranges from 0.33m to infinity. Measurement field targeting and focusing can be done using the viewfinder.

Close-up lenses for measurement spots up to 0.1mm

The optional LDM-98Z-NL close-up lens enables 1:1 to 2:1 mappings. Measurement field sizes starting from the 0.1mm range make it possible to perform luminance measurements over very tiny illuminated surfaces.

Photometric DIN 532 T7 quality class A

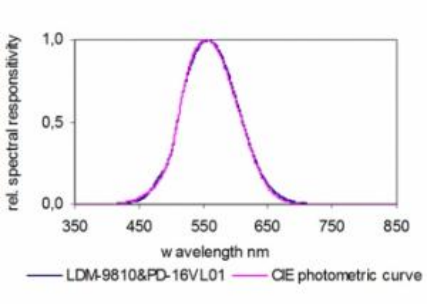
The matching of the photometric responsivity of the PD-16VL01 detector combined with the LDM-9810 viewfinder corresponds to the DIN 5032 quality class A.

Extensive selection of optometers

The LDM-9810 luminance measurement head with the PD-16VL01 can be combined with all optometers from Gigahertz-Optik.

Traceable calibration

Calibration of the luminance responsivity in A/(cd/m²) is performed by Gigahertz-Optik's calibration laboratory for optical measurands. The details provided in the calibration certificate are as stipulated by the ISO 17025 specifications.



9810_PD-16VL01 typical spectral responsivity

PD-16VL photometric detecor for use with LDM-9810 and LDM-9811

Specifications

Specification

spectral responsivity	V(λ), f1 ≤ 3 %
typical responsivity	3 pA/(cd/m²) (20' FOV)
typical responsivity	30 pA/(cd/m²) (1° FOV)
typical responsivity	1 nA/(cd/m²) (6° FOV)
Max. signal current	1 mA
optical properties	50 mm Ø achromat, focus-able from 0.3 m up to infinity
Spot Diameter	

Distance	0.3 m	0.5 m	1 m	2 m	10 m
Spot diameter	21 mm @ 6°	41.9 mm @ 6°	94.3 mm @ 6°	199 mm @ 6°	1037 mm @ 6°
	3.5 mm @ 1°	7 mm @ 1°	15.8 mm @ 1°	33.2 mm @ 1°	173 mm @ 1°
	1.2 mm @ 20'	2.3 mm @ 20'	5.2 mm @ 20'	11 mm @ 20'	57 mm @ 20'

Spot Diameter	

Lens	100 mm / f = ∞	75 mm / f = 0.3 m
Spot diameter	10.5 mm @ 6°	5.2 mm @ 6°
	1.8 mm @ 1°	0.9 mm @ 1°
	0.6 mm @ 20'	0.3 mm @ 20'

Miscellaneous	
Connector	2 m length with BNC (-1), calibration data (-2) and ITT (-4) connector
temperature range	(5 - 40) °C
Options	
LDM-98NL	Magnification lens with 50mm achromatic corrected lens. Thread Mount Adapter for the LDM-9810 lens

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
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.	http://www.gigahertz-optik.de/en-us/product/X1
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.	http://www.gigahertz-optik.de/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.	http://www.gigahertz-optik.de/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.	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
TR-9600		High-speed 1µs or 100ns rise time data logger optometer. 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.	http://www.gigahertz-optik.de/en-us/product/TR-9600
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.	http://www.gigahertz-optik.de/en-us/product/P-9202-4

Produktname	Product Image	Description	Show product
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.	http://www.gigahertz-optik.de/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.	http://www.gigahertz-optik.de/en-us/product/P-9202-6

Purchasing information

Article-Nr	Modell	Description
Product		
100900	LDM-9810	optic modul without detector head
Re-calibration		
15300387	K-LDM9810VL01-I	Calibration of the PD-16VL01 with LDM-9810. Calibration certificate
Accessories		
101042	LDM-98NL	near field lens
100913	PD-16VL01-1	Detector head with BNC connector. Calibration certificat with LDM-9810
101743	PD-16VL01-2	Detector head with calibration data connector. Calibration certificat with LDM-9810
101744	PD-16VL01-4	Detector head with ITT connector. Calibration certificat with LDM-9810