

VL-3701

<http://www.gigahertz-optik.de/en-us/product/VL-3701>

Product tags: VIS



Description

The VL-3701 is an illuminance detector head whose photometric responsivity and cosine field of view correspond to the DIN 5032 - Article 7 quality class A. The detector can be combined with all optometers and light meters from Gigahertz-Optik.

VL-3701 typical $V(\lambda)$ responsivity

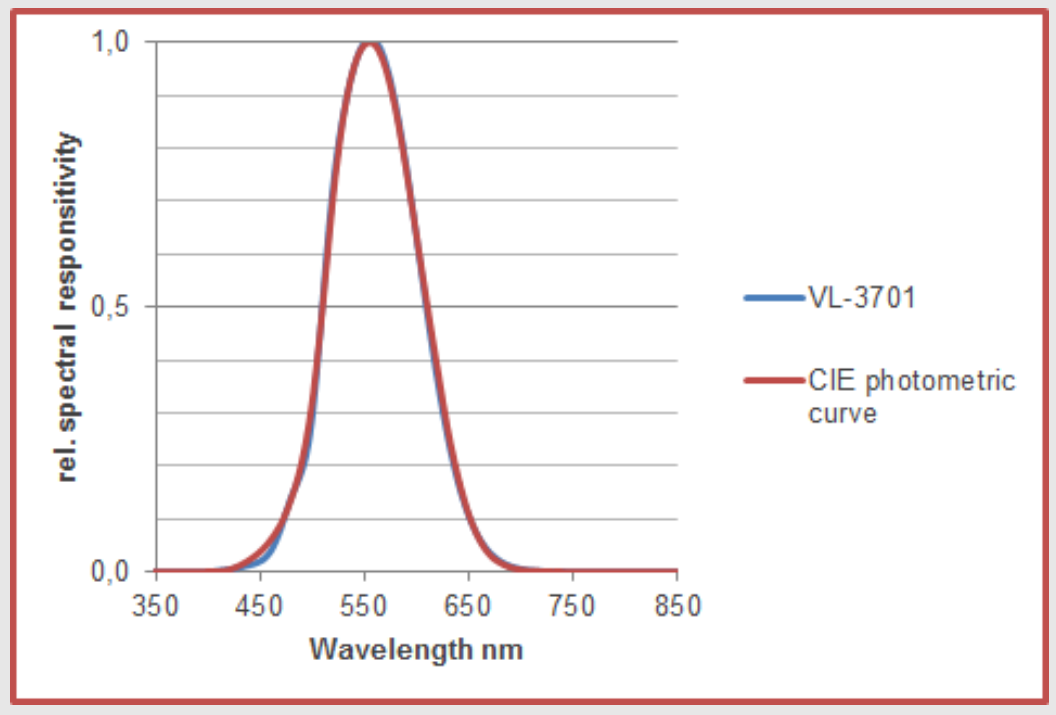
Traceable calibration

The VL-3701 is calibrated in terms of its absolute illuminance responsivity and relative spectral responsivity 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

Calibration	
Calibration uncertainty	irradiance $\pm 3.2 \%$
Specification	
spectral responsivity	photometric $V(\lambda)$
f1'	$f1 \leq 3 \%$
typical responsivity	0.5 nA/lx
Max. signal current	1 mA
Input optics	Diffuser window 7mm \varnothing
f2 Cosine Error	$f2 \leq 1.5 \%$
Connector	coaxial cable 2m Long, with BNC (-1), calibration data (-2) or ITT (-4) connector
temperature range	(5 - 40) °C

typical responsivity



min. signal current

depends on optometer

Options










Accessories

WQ: Optional waterproof retrofitting of the VL-3701 detector using quartz dome and o-ring reinforcement of the base plate.

Downloads

Type	Description	File-Type	Download
VL-3701-1	Dimension	pdf	http://www.gigahertz-optik.de/assets/Uploads/neu-100012-vl-3701-1.pdf
VL-3701-2	Dimension	pdf	http://www.gigahertz-optik.de/assets/Uploads/neu-100006-vl-3701-2.pdf
VL-3701-4	Dimension	pdf	http://www.gigahertz-optik.de/assets/Uploads/neu-101851-vl-3701-4.pdf

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>	http://www.gigahertz-optik.de/en-us/product/P-9710
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>	http://www.gigahertz-optik.de/en-us/product/X1
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>	http://www.gigahertz-optik.de/en-us/product/X1-RM
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>	http://www.gigahertz-optik.de/en-us/product/X1-PCB
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>	http://www.gigahertz-optik.de/en-us/product/P-2000
P-9801		<p>Eight-channel optometer.</p> <p>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.</p>	http://www.gigahertz-optik.de/en-us/product/P-9801
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>	http://www.gigahertz-optik.de/en-us/product/P-9802
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>	http://www.gigahertz-optik.de/en-us/product/TR-9600
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

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 – 1×10-10A/V to 1×10-3 A/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		
100012	VL-3701-1	Detector with –1 connector, protective cap, calibration certificate
100006	VL-3701-2	Detector head with –2 connector, protective cap, calibration certificate
15297138	VL-3701-4	Detector head with –4 connector, protective cap, calibration certificate
Calibration		
15300577	K-FOV	Calibration, calibration certificate
15300178	K-SAZ-08	Simulated calibration correction factors for visible LED sources out of the Gigahertz-Optik GmbH lamp emission spectrum database. Monochromatic LEDs in 10nm steps and white LEDs.
Re-calibration		
15300155	K-VL3701-I	Re-calibration, calibration certificate
15300580	K-SI-SR	Re-calibration, only together with K-RW-3701-I
Options		
100150	/WQ	Optional waterproof retrofitting