

ISD-15P-VL

<https://www.gigahertz-optik.de/en-us/product/ISD-15P-VL>

Product tags: VIS



Description

Six Inch Integrating Sphere Detector

The ISD-15P-VL integrating sphere detector with 150mm diameter integrating sphere with the synthetic coating ODM98 offers a 38,1 mm / 1,5 inch diameter measurement port and a photometric detector.



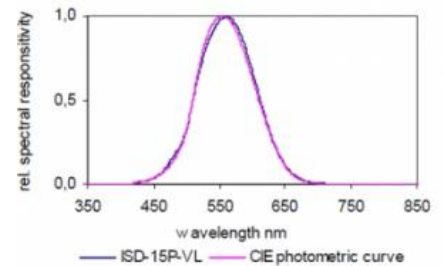
Synthetic Coating

Gigahertz-Optik's synthetic ODM98 coating offers almost perfect hemispherical diffuse reflection for best light distribution inside small size integrating spheres.

ISD-15P-VL configuration

Synthetic Coating Baffle

The detector is baffled from direct radiation from the measurement port even in use with large disperse light beam sources such as endoscopes. The unique UMPB-ZB baffle design offers integrated diffuser channels to minimize hot spot effects caused by the first reflection of the light signal.



Typical Spectral Responsivity

Optional Fiber Connector

An optional SMA connector is available to add a spectrometer to the integrating sphere for relative spectral distribution measurement.

Optional Auxiliary Port

In applications where substitution errors by re-reflected light at the measurement port must be compensated for an auxiliary port is optionally available.

Traceable Calibrations






Calibration of luminous flux sensitivity in lm is performed at Gigahertz-Optik's Calibration Laboratory for Optical Radiation Quantities.



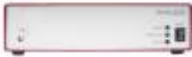



Specifications

Specification	
spectral responsivity	photometric $V(\lambda)$
f1' (spectral mismatch)	$f1 \leq 5 \%$
typical responsivity	25 nA/lm
max. Luminous Flux (Peak)	40000 lm @1 mA
max. Luminous Flux (CW)	may be limited by max. operation temperature

Max. signal current	1 mA
Input optics	38.1 mm Ø (UMPF-1.5)
Sphere diameter	150 mm
Coating	ODM98
Mounting	base
Detector port	UMPF-0.5 with baffle
Sensor	VL-1101
Connector	coaxial cable 2m Long, with BNC (-1), calibration data (-2) or ITT (-4) connector
temperature range	(5 - 40) °C
min. signal current	depends on optometer

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>	https://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>	https://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>	https://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>	https://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>	https://www.gigahertz-optik.de/en-us/product/P-2000

Produktname	Product Image	Description	Show product
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>	https://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>	https://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>	https://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>	https://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 1×10⁻³ A/V.</p>	https://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>	https://www.gigahertz-optik.de/en-us/product/P-9202-6

Purchasing information

Article-Nr	Modell	Description
Product		
15298297	ISD-15P-VL-1	Detector head with -1 connector, calibration certificate
15298298	ISD-15P-VL-2	Detector head with -2 connector, calibration certificate
15298299	ISD-15P-VL-4	Detector head with -4 connector, calibration certificate
Re-calibration		
15300240	K-ISD15PVL-I	Re-calibration of integral luminous flux responsivity in A/lm with calibration certificate
15300579	K-VIS-SR	Re-calibration of the relative spectral responsivity

Article-Nr	Modell	Description
Options		
15298289	ISD-AUX	Auxiliary port with port plug
15298293	ISD-SMA	SMA port