ISD-10-Si

https://www.gigahertz-optik.com/en-us/product/isd-10-si

Product tags: VIS , NIR

Description

Integrating sphere detector with 100 mm diameter, configured to measure laser and laser diodes with a divergence up to 64° and peak powers up to 100 W.

25,4 mm Diameter Measurement Port

The ISD-10 integrating sphere detector with 100 mm diameter integrating sphere features a large 25,4 mm diameter measurement port making it suitable for use with larger diameter Laser beams like Laser range finders. The sphere is coated with Barium Sulfate (ODP97).

If needed, the measuring port can be reduced to smaller diameters with port reducers.

Broad Spectral Responsivity

The integrating sphere detector is equipped with a Si diode which covers the wavelength range from 400 nm to 1100 nm.

Detectors with Diffuser Windows

Diffuser windows mounted in front of the detectors enable the detectors to integrate reflected radiation from almost the complete integrating sphere surface minimizing hot-spots caused by the first beam reflection.

Detector in “Shadow Position”

The detector is positioned close to the measurement port for a large acceptance angle within the sphere without direct irradiation of the detector.

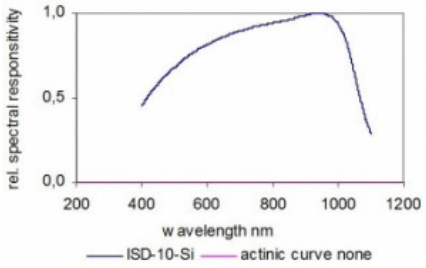
This eliminates the need to use a baffle.

Fiber Connector and Auxiliary Port

In addition to the detector port and the measurement port, the ISD-10 is also equipped with two additional ports:

- A SMA connector to connect a fiber from a spectralradiometer to the sphere

- An auxiliary port, e.g. to use for substitution correction



ISD-10-Si Typical Spectral Responsivity

Specifications

Specification	
Sphere diameter	100 mm
Port Size	15 mm
Coating	ODP97
spectral responsivity	400 nm - 1100 nm Si Photodiode
typical responsivity	1.6 mA/W @ 633 nm 1.9 mA/W @ 900 nm
max. Radiant Power (CW)	0.6 W * 0.5 W * * The max CW or average power is limit by the max operation temperature
Max. signal current	1 mA
Cable Length	2 m
Plug Types	-1,-2,-4
Calibration	Calibration of spectral responsivity in A/W in 10nm steps from 400 to 1100nm
spectral range	(400 - 1100) nm
Rise time	0.5 µs
Miscellaneous	
temperature range	(5 - 40) °C

Downloads

Type	Description	File-Type	Download
Datenblatt	Dimensions	pdf	https://www.gigahertz-optik.com/assets/Uploads/102848-isd-10-si.pdf

Configurable with

Product Name	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	https://www.gigahertz-optik.com/en-us/product/p-9710

Product Name	Product Image	Description	Show product
P-9710-2		High quality optometer for pulse-energy measurements of short pulses in photometric, radiometric and LASER application. Features: pulse energy measurement, CW, dose, simple and safe detector exchange, battery, main power, RS232	https://www.gigahertz-optik.com/en-us/product/p-9710-2
P-9710-4		High quality optometer for pulse-energy measurements of short pulses in photometric, radiometric and LASER application Features: pulse energy measurement with external Trigger input, CW, dose, simple and safe detector exchange, battery, main power, RS232	https://www.gigahertz-optik.com/en-us/product/p-9710-4
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.	https://www.gigahertz-optik.com/en-us/product/tr-9600
P-9802		Light meter for laboratory use with up to 24 measurement heads. Features: For use with up to 24 photometric and/or radiometric measurement heads. RS232 interface.	https://www.gigahertz-optik.com/en-us/product/p-9802
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.	https://www.gigahertz-optik.com/en-us/product/p-9801
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.	https://www.gigahertz-optik.com/en-us/product/p-2000

Purchasing information

Article-Nr	Modell	Description
Product		
15298336	ISD-10-Si (-1 Con.)	Detector, Calibration Certificate
15298337	ISD-10-Si (-2 Con.)	Detector, Calibration Certificate
15298338	ISD-10-Si (-4 Con.)	Detector, Calibration Certificate
Re-calibration		
15300256	K-ISD10Si-SD	Detector, Calibration Certificate