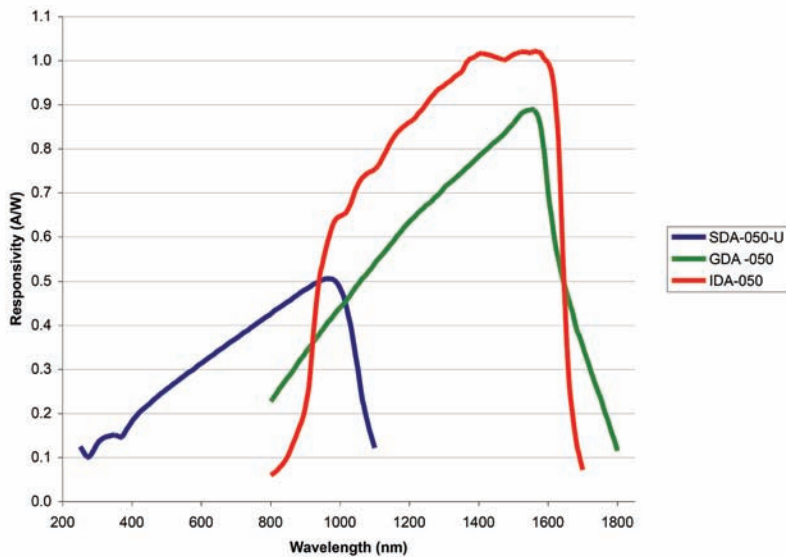


PHOTODETECTOR ASSEMBLIES

Variety of detector assemblies to fit an array of application needs

SPECTRAL RESPONSIVITY CURVE FOR LABSPHERE'S DETECTOR ASSEMBLIES



COMPATIBLE AND FLEXIBLE

All of Labsphere's detector assemblies are compatible with Labsphere's modular integrating spheres, and designed to provide greater configuration flexibility. All detectors are contained in a housing that fits on a 0.5-inch diameter integrating sphere port frame or port adaptor. Each detector assembly includes a BNC connector and 10 ft coaxial cable.

Labsphere offers five different types of non-cooled detector assemblies that are used in a variety of applications. All detector assemblies are compatible with Labsphere's SC 6000 Radiometer/Photometer.

FEATURES:

Easy to mount on a standard 0.5-inch integrating sphere port frame.

Wide wavelength range selection based on specific application.

When connected to a radiometer (SC 6000), and with appropriate calibration, can monitor the radiant/luminous flux, irradiance/illuminance or luminance/radiance

APPLICATIONS:

Measure UV, visible & infrared radiation; reflectance, transmittance and absorption

Laser power detection

Radiometry and photometry

Low-level radiation

Luminance and radiance monitoring

SILICON DETECTOR ASSEMBLY: SDA-050-U-RTA-CX

The silicon detector assembly is a UV-enhanced photovoltaic detector designed to monitor radiation in an integrating sphere. The unfiltered detector assembly has a broad spectral response from 190 to 1100 nm. Low dark current and high sensitivity and reliability enable it to be used in a wide variety of optical measurements.

PHOTOPIC DETECTOR ASSEMBLY: SDA-050-P-RTA-CX

The photopic detector assembly is filtered to closely match the CIE photopic observer in the visible region (380 - 780 nm). When integrated with Labsphere's spheres and systems it can provide highly accurate photometric measurements due to low dark current, high linearity and high stability.

GERMANIUM DETECTOR ASSEMBLY: GDA-050-U-RTA-CX

The germanium detector assembly monitors radiation in an integrating sphere. The high-quality photodiode is designed for the 800 to 1800 nm wavelength range. The detector has high responsivity, good linearity, fast response times, and excellent long-term stability.

INDIUM GALIUM ARSENIDE DETECTOR ASSEMBLY: IDA-050-U-RTA-CX

The InGaAs detector assembly monitors radiation in an integrating sphere, and is spectrally sensitive from 1000 to 1700 nm. Due to state-of-the-art sensitivity and high responsivity, the detectors are ideal for optical power measurement applications.

EXTENDED RANGE InGaAs DETECTOR ASSEMBLY: IDA-EXT-050-RTA-CX

The extended range InGaAs detector assembly is designed for greater flexibility and wider application range. The high-quality photodiode embedded in the detector assembly is designed for the 800 to 2600 nm wavelength range. The detector provides fast rise time, uniformity of response, excellent sensitivity, and long-term reliability for a wide range of applications.



Specifications

Model Number	Part Number	Description
SDA-050-U-RTA-CX	AS-02522-400	Silicon detector assembly
SDA-050-P-RTA-CX	AS-02522-401	Filtered silicon detector assembly with photopic response
IDA-050-U-RTA-CX	AS-02522-402	InGaAs detector assembly
IDA-EXT-050-RTA-CX	AS-02522-403	Extended range InGaAs detector assembly
GDA-050-U-RTA-CX	AS-02522-404	Germanium detector assembly

Properties and Performance

Detector/Model	SDA-050-U-RTA-CX	SDA-050-P-RTA-CX	IDA-050-U-RTA-CX	IDA-EXT-050-RTA-CX	GDA-050-U-RTA-CX
Active area	4.5 mm ²	4.5 mm ²	7 mm ²	3.14 mm ²	19.6 mm ²
Spectral range	190-1100 nm	visible	1000-1700 nm	800-2600 nm	800-1800 nm
Peak responsivity	@ 950 nm: 0.5 A/W	Peaks @550 nm	@ 1300 nm: 0.9 A/W	@ 2200 nm: 1.2 A/W	@ 1550 nm: 0.9 A/W
f1'	NA	4%	NA	NA	NA
Connector	BNC	BNC	BNC	BNC	BNC
Compatible with	SC 6000	SC 6000	SC 6000	SC 6000	SC 6000
Cable included	10 ft coaxial cable	10 ft coaxial cable	10 ft coaxial cable	10 ft coaxial cable	10 ft coaxial cable
Mounts on	½" port frame	½" port frame	½" port frame	½" port frame	½" port frame

Optional Accessories

SC 6000	Programmable radiometer/photometer	AS-02702-000
GPS Spheres	Labsphere's general purpose integrating spheres	-
PFR-XXX-050	Port frame reducers to achieve ½" diameter port	-