

IS12L-9S-RSI-INT-DO

Integrating sphere detector for laser power measurement up to 9 W.



PRODUCT FAMILY KEY FEATURES

FASTEST RESPONSE

With their silicon sensors, the IS detectors are as fast as photodiodes.

HIGH AVERAGE POWER

Two sizes are available, both with high average power capabilities:

- 12 mm aperture for up to 9 W of continuous power
- 50 mm aperture for up to 1000 W of continuous power

RESISTANT COATING

Our proprietary coating is designed to be strong. Its damage thresholds are orders of magnitude higher than any other "white" coatings on the market.

PRECISE CALIBRATION

The IS detectors have a NIST-traceable calibration for their entire calibrated spectral range. Temperature compensation completes the calibration to give you the most accurate and stable measurements.

CHOICE OF OUTPUT

The IS detectors are available with two output options:

- INTEGRA with USB output (-INT)
- INTEGRA with RS-232 output (-IDR)

AWARD-WINNING TECHNOLOGY

The laser power detectors in the IS series were recognized among the best solutions on the market by an esteemed and experienced panel of judges from the optics and photonics community at the 2022 Laser Focus World Innovators Awards.



COMPATIBLE STAND

[STAND-D-233](#)

SPECIFICATIONS

MEASUREMENT CAPABILITIES

Maximum average power (continuous)	9 W
Noise equivalent power ¹	1 μ W
Spectral range	340 - 1100 nm
Typical rise time	0.2 s
Power calibration uncertainty	± 5.0 % (405 - 499 nm) ± 3.5 % (500 - 1069 nm) ± 2.5 % (1070 nm)
Linearity with power	± 1 %
Sphere inner diameter	50 mm \varnothing
Maximum incidence angle	$\pm 10^\circ$
Maximum divergence	10° (half-angle)
Power calibration uncertainty	± 5.0 % (405 - 499 nm)

±3.5 % (500 - 1069 nm)
±2.5 % (1070 nm)

Calibrated spectral range	405 - 1070 nm
Back reflections	6 %, concentrated in a cone with 7.5 degrees half-angle
1. At 1070 nm. Nominal value. Actual value depends on environmental electromagnetic interference and wavelength.	
DAMAGE THRESHOLDS	
Maximum average power density ¹	2 kW/cm ²
Maximum energy density ²	400 mJ/cm ²
1. At 1064 - 1070 nm, CW. May vary with wavelength and average power. 2. At 1064 - 1070 nm, 7 ns. May vary with wavelength and pulse width.	
PHYSICAL CHARACTERISTICS	
Cooling	Convection
Aperture diameter	12 mm
Absorber	Si
Dimensions	66H x 78W x 66D mm
Weight	0.7 kg
ORDERING INFORMATION	
IS12L-9S-RSi-INT-D0	203203
IS12L-9S-RSi-IDR-D0	205100
IS12L-9S-RSi-INT-D0	203203

Specifications are subject to change without notice. Refer to the user manual for complete specifications.

INTERESTED IN THIS PRODUCT?

GET A QUOTE

Find your local sales representative at gentec-eo.com/contact-us