

XLPF12-3S-H2-D0

Thermopile detector for laser power measurement up to 3 W.



PRODUCT FAMILY KEY FEATURES

NEW: IMPROVED ACCURACY

The uncertainty at the laser calibration wavelength is now lower than ever: only $\pm 2.0\%$

LOW POWER THERMOPILE

Noise level of a photo detector with the large bandwidth and high power capacity of a thermal device

MINIMAL THERMAL DRIFT

Only $6 \mu\text{W}/^\circ\text{C}$ (with the IR filter)

HIGH SENSITIVITY

200 mV/W (without the IR filter)

SPECIAL MODEL FOR ULTRASHORT PULSES

VP (volume absorber) version is perfect for low power lasers with ultrashort pulses (ps and fs)

IR FILTER (XLPF12 MODEL)

Removes unwanted IR interference

ISOLATION TUBE

Eliminates power fluctuations created by air turbulence

COMPATIBLE STAND

[STAND-S-233](#)

SPECIFICATIONS

MEASUREMENT CAPABILITIES

Maximum average power (continuous)	3 W
Maximum average power (1 minute)	3 W
Noise equivalent power ¹	0.5 μW
Spectral range ²	0.28 - 2.1 μm
Typical rise time ³	2.5 s
Power calibration uncertainty ⁴	$\pm 2\%$
Repeatability	$\pm 0.5\%$
Thermal drift ⁵	6 $\mu\text{W}/^\circ\text{C}$

1. Nominal value, actual value depends on electrical noise in the measurement system.

2. For the calibrated spectral range, see the user manual.

3. With anticipation.

4. Including linearity with power.

5. With MAESTRO.

MEASUREMENT CAPABILITIES (ENERGY MODE)

Maximum measurable energy ¹	5 J
Noise equivalent energy ²	12 μJ
Minimum repetition period	16 s
Maximum pulse width	300 ms
Energy calibration uncertainty ³	$\pm 5\%$

1. For 360 μs pulses. Higher pulse energy possible for long pulses (ms), less for short pulses (ns).

2. Nominal value, actual value depends on electrical noise in the measurement system.

3. When single-shot energy calibration is purchased

DAMAGE THRESHOLDS

Maximum average power density ¹	1 kW/cm ²
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Maximum energy density²

1 J/cm²

1. At 1064 nm, 1 W CW. May vary with wavelength and average power.
2. At 1064 nm, 7 ns, 10 Hz. May vary with wavelength and pulse width.

PHYSICAL CHARACTERISTICS

Cooling	Convection
Aperture diameter	12 mm
Absorber	H2
Dimensions	73H x 73W x 20D mm (80D mm with tube)
Weight	0.32 kg

ORDERING INFORMATION

XLPF12-3S-H2-D0	201077
XLPF12-3S-H2-IDR-D0	203395
XLPF12-3S-H2-BLU-D0	203998
XLPF12-3S-H2-INT-D0	202611

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