

# XLP12-3S-H2-D0

P/N 201032

Thermopile detector for laser power measurement up to 3 W.

## KEY FEATURES

### 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](#)

## COMPATIBLE DISPLAYS & PC INTERFACES

[MAESTRO](#)

[TUNER](#)

[UNO](#)

[S-LINK-1](#)

[S-LINK-2](#)

[P-LINK \(USB\)](#)

[M-LINK](#)

[P-LINK \(RS-232\)](#)

[P-LINK-4 \(USB\)](#)

[P-LINK-4 \(Ethernet\) V2](#)

[S-LINK-1 \(Ethernet\)](#)

[S-LINK-2 \(Ethernet\)](#)



## MEASUREMENT CAPABILITIES

Maximum average power (continuous)	3 W
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Maximum average power (1 minute)	3 W
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Noise equivalent power <sup>1</sup>	0.5 $\mu\text{W}$
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Spectral range <sup>2</sup>	0.19 - 20 $\mu\text{m}$
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Typical rise time <sup>3</sup>	2.5 sec
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Typical power sensitivity <sup>4</sup>	200 V/W
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Power calibration uncertainty <sup>5</sup>	$\pm 2.5\%$
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Repeatability	$\pm 0.5\%$
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Thermal drift <sup>6</sup>	12 $\mu\text{W}/^\circ\text{C}$
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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. Into 100 k $\Omega$  load. Maximum output voltage = sensitivity x maximum power.

5. Including linearity with power.

6. With MAESTRO.

## MEASUREMENT CAPABILITIES (ENERGY MODE)

Typical energy sensitivity	25 mV/J
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Maximum measurable energy <sup>1</sup>	5 J
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Noise equivalent energy <sup>2</sup>	12 $\mu\text{J}$
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Minimum repetition period	16 s
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Maximum pulse width	300 ms
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Energy calibration uncertainty <sup>3</sup>	$\pm 5\%$
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1. For 360  $\mu\text{s}$  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 <sup>1</sup>	1 kW/cm <sup>2</sup>
Maximum energy density <sup>2</sup>	1 J/cm <sup>2</sup>
Peak power density <sup>3</sup>	143 MW/cm <sup>2</sup>

1. At 1064 nm, 1 W CW.

2. At 1064 nm, 7 ns, 10 Hz.

3. At 1064 nm, 7 ns, 10 Hz.

**PHYSICAL CHARACTERISTICS**

Aperture diameter	12 mm
Absorber	H2
Dimensions	73H x 73W x 20D mm (72D mm with tube)
Weight	0.31 kg