

# UP10P-2S-H5-L-D0

P/N 202873

Thermal detector for laser power measurement up to 2 W.



## KEY FEATURES

### LOW POWER THERMOPILE

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

### IR FILTER (UPF10 MODELS)

Removes unwanted IR interference

### HIGH PERFORMANCE

- Fast rise time (1.4 sec)
- High damage threshold (36 kW/cm<sup>2</sup>)

### COMPACT DESIGN

Only 13 mm thick (UP10P model)

### ENERGY MODE

Measure single shot energy up to 3 J

### SMART INTERFACE

Containing all the calibration data

### 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)	2 W
Noise equivalent power <sup>1</sup>	30 $\mu$ W
Spectral range <sup>2</sup>	0.19 - 20 $\mu$ m
Typical rise time <sup>3</sup>	1.4 sec
Typical power sensitivity <sup>4</sup>	2 mV/W
Power calibration uncertainty <sup>5</sup>	$\pm$ 2.5 %
Repeatability	$\pm$ 0.5 %

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.

## MEASUREMENT CAPABILITIES (ENERGY MODE)

Typical energy sensitivity	2.4 mV/J
Maximum measurable energy <sup>1</sup>	3 J
Noise equivalent energy <sup>2</sup>	5 mJ
Minimum repetition period	2 s
Maximum pulse width	63 ms
Energy calibration uncertainty <sup>3</sup>	$\pm$ 5 %

1. For 360  $\mu$ 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>	36 kW/cm <sup>2</sup>
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Maximum energy density <sup>4</sup>	1 J/cm <sup>2</sup>
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Peak power density <sup>3</sup>	143 MW/cm <sup>2</sup>
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1. At 1064 nm, 10 W CW.
2. At 1064 nm, 7 ns, 10 Hz.
3. At 1064 nm, 7 ns, 10 Hz.

## PHYSICAL CHARACTERISTICS

Aperture diameter	10 mm
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Absorber	H5
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Dimensions	46H x 46W x 13D mm
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Weight	0.13 kg
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