

# UP10K-2S-H5-L-D0

P/N 202872

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 μW
Spectral range <sup>2</sup>	0.19 - 20 μm
Typical rise time <sup>3</sup>	1.1 sec
Typical power sensitivity <sup>4</sup>	2 mV/W
Power calibration uncertainty <sup>5</sup>	±2.5 %
Repeatability	±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 kΩ 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>	±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	36 kW/cm <sup>2</sup>
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density'

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Maximum energy density <sup>2</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

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Aperture diameter	10 mm
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Absorber	H5
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Dimensions	50H x 50W x 21.5D mm
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Weight	0.19 kg
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