

UP10-H

10 mm Ø, 0.1 mW - 2 W, fast & low power thermopile



KEY FEATURES

- > **LOW POWER THERMOPILE**
Noise level of a photodetector with the large bandwidth and high power capacity of a thermal device
- > **HIGH PERFORMANCE**
Fast rise time (1.4 s)
High damage threshold (36 kW/cm²)
- > **COMPACT DESIGN**
Only 13 mm thick (UP10P model)
- > **ENERGY MODE**
Measure single shot energy up to 3 J

OUTPUT OPTIONS

- > **SMART DB15 CONNECTOR**
Contains all the calibration data
- > **integra ALL-IN-ONE-METER**
Connects directly to a PC
Two models available:
 - USB output (-INT)
 - RS-232 output (-IDR)

COMPATIBLE DISPLAYS & PC INTERFACES



MIRO ALTITUDE



MAESTRO



TUNER



UNO



U-LINK and P-LINK



S-LINK and M-LINK

ACCESSORIES



Stand with steel post



Extension Cables
(4, 15, 20 or 25 m)



IR Filter
(Mounted)



Isolation tube



Fiber adaptors & connectors
(FC, ST and SMA)



Pelican carrying case



	UP10P-2S-H5-L-D0	UP10K-2S-H5-L-D0
MAX AVERAGE POWER	2 W	2 W
EFFECTIVE APERTURE	10 mm Ø	10 mm Ø
COOLING METHOD	Convection	Convection
MEASUREMENT CAPABILITY		
Spectral range	0.19 - 20 µm	0.19 - 20 µm
Calibrated spectral range ^a	0.248 - 2.1 µm	0.248 - 2.1 µm
Noise equivalent power ^b	100 µW without anticipation 30 µW with anticipation and 2 s moving average	100 µW without anticipation 30 µW with anticipation and 2 s moving average
Rise time (nominal) ^c	1.4 s	1.1 s
Calibration uncertainty ^d	± 2.5%	± 2.5%
Repeatability	±0.5%	±0.5%
Energy mode		
Maximum measurable energy ^e	3 J	3 J
Noise equivalent energy ^b	5 mJ	5 mJ
Minimum repetition period	2 s	2 s
Maximum pulse width	63 ms	63 ms
Accuracy with energy calibration option	± 5%	± 5%
DAMAGE THRESHOLDS		
Maximum average power density ^f	36 kW/cm ²	36 kW/cm ²
Maximum energy density		
1064 nm, 360 µs, 5 Hz	5 J/cm ²	5 J/cm ²
1064 nm, 7 ns, 10 Hz	1 J/cm ²	1 J/cm ²
532 nm, 7 ns, 10 Hz	0.6 J/cm ²	0.6 J/cm ²
266 nm, 7 ns, 10 Hz	0.3 J/cm ²	0.3 J/cm ²
PHYSICAL CHARACTERISTICS		
Effective aperture	10 mm Ø	10 mm Ø
Absorber (high damage threshold)	H5	H5
Dimensions	46H x 46W x 13D mm	50H x 50W x 21.5D mm
Weight (head only)	0.13 kg	0.19 kg
ORDERING INFORMATION		
Available output options	DB15, USB or RS-232	DB15, USB, RS-232
Compatible stand	STAND-S-233	STAND-S-233
Product page		

- a. Calibrations at 2.1 to 2.5 µm and 10.6 µm are available on special request.
- b. Nominal value, actual value depends on electrical noise in the measurement system.
- c. With anticipation.
- d. Including linearity with power.
- e. For 360 µs pulses. Higher pulse energy possible for long pulses (ms), less for short pulses (ns).
- f. At 1064 nm, 10 W CW.