

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

UP10-H

Specifications

CE NIST*
Traceable
*Also traceable to NRC-CNRC



	UPIOP-2S-HS-L-DO	UPIOK-2S-HS-L-DO
MAX AVERAGE POWER	2W	2W
EFFECTIVE APERTURE	10mm ϕ	10mm ϕ
COOLING METHOD	Convection	Convection
MEASUREMENT CAPABILITY		
Spectral range	0.19-20 μ m	0.19-20 μ m
Calibrated spectral range ^a	0.248 - 21 μ m	0.248 - 21 μ m
Noise equivalent power ^b	100 μ W without anticipation 30 μ W with anticipation and 2s moving average	100 μ W without anticipation 30 μ W with anticipation and 2s moving average
Rise time (nominal) ^c	1.4s	1.1s
Calibration uncertainty ^d	$\pm 2.5\%$	$\pm 2.5\%$
Repeatability	$\pm 0.5\%$	$\pm 0.5\%$
Energy mode		
Maximum measurable energy ^e	3 J	3J
Noise equivalent energy ^b	s mJ	SmJ
Minimum repetition period	2s	2s
Maximum pulse width	63 ms	63ms
Accuracy with energy calibration option	$\pm 5\%$	$\pm 5\%$
DAMAGE THRESHOLDS		
Maximum average power density ^f	36kW/cm ²	36 kW/cm ²
Maximum energy density		
1064 nm, 360 μ s, 5 Hz	SJ/cm ²	SJ/cm ²
1064 nm, 7 ns, 10 Hz	1J/cm ²	1J/cm ²
532 nm, 7 ns, 10 Hz	0.6J/cm ²	0.6J/cm ²
266 nm, 7 ns, 10 Hz	0.3J/cm ²	0.3 J/cm ²
PHYSICAL CHARACTERISTICS		
Effective aperture	10mm ϕ	10mm ϕ
Absorber (high damage threshold)	HS	HS
Dimensions	46H x 46W x 13D mm	50H x 50W x 21SD mm
Weight (head only)	0.13kg	0.19kg
ORDERING INFORMATION		
Available output options	DBIS, USB or RS-232	DBIS, USB, RS-232
Compatible stand	STAND-S-233	STAND-S-233
Product page		

- a. Calibrations at 21 to 25 μ m and 10.6 μ m 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 μ s pulses. Higher pulse energy possible for long pulses (ms), less for short pulses (ns).
f. At 1064 nm, 10 W CW.