gentec-e PARTNERS for ACCURACY

LASER COMPONENTS®

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

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LASER COMPONENTS®

UP10-H
Specifications

CE NIST* Traceable
*Also traceable to NRC-CNRC


	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/cm²	36 kW/cm²
Maximum energy density		
1064 nm, 360 µs, 5 Hz	5 J/cm²	5 J/cm²
1064 nm, 7 ns, 10 Hz	1 J/cm²	1 J/cm²
532 nm, 7 ns, 10 Hz	0.6 J/cm²	0.6 J/cm²
266 nm, 7 ns, 10 Hz	0.3 J/cm²	0.3 J/cm²
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.

Specifications are subject to change without notice

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