

UP12E

12 mm Ø, 1 mW - 110 W



KEY FEATURES

- 1 Modular Concept**
Increase the power capability of your detector:
3 different cooling modules
- 2 High Performance**
Fast Rise Time (0.3 sec)
High Damage Threshold (36 kW/cm²)
- 3 Compact Design**
Only 14 mm thick (10S model)
- 4 Energy Mode**
Measure single shot energy up to 5 J
- 5 Smart Interface**
Containing all the calibration data

AVAILABLE MODELS



UP12E-10S-H5
(10W-Standalone)



UP12E-20H-H5
(20W-Heatsink)



UP12E-70W-H5
(70W-Water-Cooled)

ACCESSORIES



Stand with Steel Post



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



Fiber Adaptors and Connectors
(FC, SC or SMA)



Pelican Carrying Case

SEE ALSO

HOW IT WORKS	12
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MAESTRO	18
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S-LINK-2	26
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UP12E

SPECIFICATIONS



*Also traceable to NRC-CNRC

MODELS	UP12E-10S-H5	UP12E-20H-H5	UP12E-70W-H5
MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)	10 W / 20 W	20 W / 40 W	70 W ^f / 110 W ^f
EFFECTIVE APERTURE	12 mm Ø	12 mm Ø	12 mm Ø
COOLING METHOD	Convection	Heatsink	Water-Cooled

MEASUREMENT CAPABILITY

Spectral Range	0.19 – 20 µm	0.19 – 20 µm	0.19 – 20 µm
Noise Equivalent Power ^a	1 mW	1 mW	1 mW
Rise Time (nominal) ^b	0.3 sec	0.3 sec	0.3 sec
Sensitivity (typ into 100 kΩ load) ^c	0.53 mV/W	0.53 mV/W	0.53 mV/W
Calibration Uncertainty ^d	±2.5 %	±2.5 %	±2.5 %
Repeatability	±0.5 %	±0.5 %	±0.5 %
Energy Mode			
Sensitivity	0.84 mV/J	0.84 mV/J	0.84 mV/J
Maximum Measurable Energy ^e	5 J	5 J	5 J
Noise Equivalent Energy ^a	0.02 J	0.02 J	0.02 J
Minimum Repetition Period	1.5 sec	1.5 sec	1.5 sec
Maximum Pulse Width	50 ms	50 ms	50 ms
Accuracy with energy calibration option	±5 %	±5 %	±5 %

DAMAGE THRESHOLDS

Maximum Average Power Density ^g	36 kW/cm ²	36 kW/cm ²	36 kW/cm ²
Pulsed Laser Damage Thresholds	Max Energy Density		Peak Power Density
1064 nm, 360 µs, 5 Hz	5 J/cm ²		14 kW/cm ²
1064 nm, 7 ns, 10 Hz	1 J/cm ²		143 MW/cm ²
532 nm, 7 ns, 10 Hz	0.6 J/cm ²		86 MW/cm ²
266 nm, 7 ns, 10 Hz	0.3 J/cm ²		43 MW/cm ²

PHYSICAL CHARACTERISTICS

Effective Aperture Diameter	12 mm Ø	12 mm Ø	12 mm Ø
Absorber (High Damage Threshold)	H5	H5	H5
Dimensions	38H x 38W x 14D mm	38H x 38W x 45D mm	38H x 38W x 32D mm
Weight (head only)	0.13 kg	0.15 kg	0.19 kg

ORDERING INFORMATION

Full Product Name	UP12E-10S-H5	UP12E-20H-H5	UP12E-70W-H5
Product Number (Including stand)	200384	200386	200390

a. Nominal value, actual value depends on electrical noise in the measurement system.

b. With Gentec-EO MAESTRO, UNO, P-LINK and S-LINK-2 monitors.

c. Maximum output voltage = sensitivity x maximum power.

d. Including linearity with power.

e. For 360 µs pulses. Higher pulse energy possible when customized for long pulses (ms), less for short pulses (ns).

f. Minimum cooling flow 0.5 liters/min, water temperature ≤ 22°C, 1/8 NPT compression fittings for 1/4 inch semi-rigid tube.

Contact Gentec-EO for clean deionized water cooling module option.

g. At 1064 nm, 10 W CW.

Specifications are subject to change without notice