

POWER DETECTORS

AVAILABLE WITH *integra*



See page 36 for details

# UP12-H

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/cm<sup>2</sup>)
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
6. **integra OPTIONS**
  - Standard: USB Output (-INT)
  - In Option: RS-232 Output (-HDR)

## AVAILABLE MODELS



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



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



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

## ACCESSORIES



Stand with Steel Post  
(Model Number: 200160)



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



Fiber Adaptors and Connectors  
(FC, SC or SMA)



Pelican Carrying Case



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# UP12-H

CE NIST<sup>\*</sup>  
Traceable   
<sup>\*</sup>Also traceable to NRC-CNRC

## SPECIFICATIONS

	UP12E-10S-H5	UP12E-20H-H5	UP12E-70W-H5
<b>MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)</b>	10 W / 20 W	20 W / 40 W	70 W <sup>†</sup> / 110 W <sup>†</sup>
<b>EFFECTIVE APERTURE</b>	12 mm Ø	12 mm Ø	12 mm Ø
<b>COOLING METHOD</b>	Convection	Heatsink	Water-Cooled
<b>MEASUREMENT CAPABILITY</b>			
Spectral Range <sup>*</sup>	0.19 – 20 µm	0.19 – 20 µm	0.19 – 20 µm
Noise Equivalent Power <sup>a</sup>	1 mW	1 mW	1 mW
Rise Time (nominal) <sup>b</sup>	0.3 sec	0.3 sec	0.3 sec
Sensitivity (typ into 100 kΩ load) <sup>c</sup>	0.53 mV/W	0.53 mV/W	0.53 mV/W
Calibration Uncertainty <sup>d</sup>	±2.5 %	±2.5 %	±2.5 %
Repeatability	±0.5 %	±0.5 %	±0.5 %
<b>Energy Mode</b>			
Sensitivity	0.84 mV/J	0.84 mV/J	0.84 mV/J
Maximum Measurable Energy <sup>a</sup>	5 J	5 J	5 J
Noise Equivalent Energy <sup>a</sup>	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 %
<b>DAMAGE THRESHOLDS</b>			
Maximum Average Power Density <sup>a</sup>	36 kW/cm <sup>2</sup>	36 kW/cm <sup>2</sup>	36 kW/cm <sup>2</sup>
<b>Maximum Energy Density</b>			
1064 nm, 360 µs, 5 Hz	5 J/cm <sup>2</sup>	5 J/cm <sup>2</sup>	5 J/cm <sup>2</sup>
1064 nm, 7 ns, 10 Hz	1 J/cm <sup>2</sup>	1 J/cm <sup>2</sup>	1 J/cm <sup>2</sup>
532 nm, 7 ns, 10 Hz	0.6 J/cm <sup>2</sup>	0.6 J/cm <sup>2</sup>	0.6 J/cm <sup>2</sup>
266 nm, 7 ns, 10 Hz	0.3 J/cm <sup>2</sup>	0.3 J/cm <sup>2</sup>	0.3 J/cm <sup>2</sup>
<b>PHYSICAL CHARACTERISTICS</b>			
Effective Aperture	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
<b>ORDERING INFORMATION</b>			
Product Name	UP12E-10S-H5-D0	UP12E-20H-H5-D0	UP12E-70W-H5-D0
Product Number (without stand)	200383	200385	200389
 Add Extension for INTEGRA (USB)	-INT	-INT	-INT
Product Number (without stand)	202613	202615	203037
 Add Extension for INTEGRA (RS-232)	-IDR	-IDR	-IDR

Specifications are subject to change without notice // Compatible stand: P/N 200160

<sup>\*</sup> For the calibrated spectral range, see the user manual.

- a. Nominal value, actual value depends on electrical noise in the measurement system.  
 b. With anticipation.  
 c. Maximum output voltage = sensitivity x maximum power.  
 d. Including linearity with power.

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