



UP19-H

19 mm Ø, 1 mW - 200 W



KEY FEATURES

- 1. MODULAR CONCEPT**
Increase the power capability of your detector: 5 different cooling modules
- 2. HIGH PERFORMANCE**
Fast Rise Time (0.6 sec)
High Damage Threshold (45 kW/cm²)
- 3. COMPACT DESIGN**
Only 20.6 mm thick (15S model)
- 4. ENERGY MODE**
Measure single shot energy up to 25 J
- 5. SMART INTERFACE**
Containing all the calibration data

- 6. integra OPTIONS**
 - Standard: USB Output (-INT)
 - In Option: RS-232 Output (-IDR)

AVAILABLE MODELS



UP19K-15S-H5
(15W-Standalone)



UP19K-30H-H5
(30W-Heatsink)



UP19K-50L-H5
(50W-Large Heatsink)



UP19K-110F-H9
(110W-Fan-Cooled)



UP19K-150W-H5
(150W-Water-Cooled)



UP19K-200W-H9
(200W-Water-Cooled)

ACCESSORIES



Stand with Steel Post
(Model Number: 200160)



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



Isolation Tube
(Model Number: 202376)



Fiber Adaptors and Connectors
(FC, SC or SMA)



12V Power Supply
(Model Number: 200130)



Pelican Carrying Case

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MONITORS

ENERGY DETECTORS

POWER DETECTORS

HIGH POWER SOLUTIONS

PHOTO DETECTORS

THZ DETECTORS

OEM DETECTORS

SPECIAL PRODUCTS

BEAM DIAGNOSTICS

UP19-H



*Also traceable to NRC-CNRC

SPECIFICATIONS

	UP19K-15S-H5	UP19K-30H-H5	UP19K-50L-H5	UP19K-110F-H9	UP19K-150W-H5	UP19K-200W-H9
MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)	15 W / 30 W	30 W / 60 W	50 W / 90 W	110 W / 150 W	150 W [†] / 190 W [†]	200 W [†] / 200 W [†]
EFFECTIVE APERTURE	19 mm Ø	19 mm Ø	19 mm Ø	19 mm Ø	19 mm Ø	19 mm Ø
COOLING METHOD	Convection	Heatsink	Large Heatsink	Fan-Cooled	Water-Cooled	Water-Cooled
MEASUREMENT CAPABILITY						
Spectral Range [*]	0.19 – 20 µm	0.19 – 20 µm	0.19 – 20 µm	0.19 – 20 µm	0.19 – 20 µm	0.19 – 20 µm
Noise Equivalent Power ^a	1 mW	1 mW	1 mW	3 mW	1 mW	3 mW
Rise Time (nominal) ^b	0.6 sec	0.6 sec	0.6 sec	1.5 sec	0.6 sec	1.5 sec
Sensitivity (typ into 100 kΩ load) ^c	0.65 mV/W	0.65 mV/W	0.65 mV/W	0.23 mV/W	0.65 mV/W	0.23 mV/W
Calibration Uncertainty ^d	±2.5 %	±2.5 %	±2.5 %	±2.5 %	±2.5 %	±2.5 %
Repeatability	±0.5 %	±0.5 %	±0.5 %	±0.5 %	±0.5 %	±0.5 %
Energy Mode						
Sensitivity	0.65 mV/J	0.65 mV/J	0.65 mV/J	0.23 mV/J	0.65 mV/J	0.23 mV/J
Maximum Measurable Energy ^e	15 J	15 J	15 J	25 J	15 J	25 J
Noise Equivalent Energy ^a	0.02 J	0.02 J	0.02 J	0.06 J	0.02 J	0.06 J
Minimum Repetition Period	4 sec	4 sec	4 sec	4 sec	4 sec	4 sec
Maximum Pulse Width	88 ms	88 ms	88 ms	88 ms	88 ms	88 ms
Accuracy with energy calibration option	±5 %	±5 %	±5 %	±5 %	±5 %	±5 %
DAMAGE THRESHOLDS						
Maximum Average Power Density ^g	36 kW/cm ²	36 kW/cm ²	36 kW/cm ²	45 kW/cm ²	36 kW/cm ²	45 kW/cm ²
Pulsed Laser Damage Thresholds	Max Energy Density		Peak Power Density			
1064 nm, 360 µs, 5 Hz	5 J/cm ² (H5), 9 J/cm ² (H9)		14 kW/cm ² (H5), 25 kW/cm ² (H9)			
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	19 mm Ø	19 mm Ø	19 mm Ø	19 mm Ø	19 mm Ø	19 mm Ø
Absorber (High Damage Threshold)	H5	H5	H5	H9	H5	H9
Dimensions	50H x 50W x 20.6D mm	50H x 50W x 56.3D mm	76.2H x 76.2W x 74.7D mm	54.2H x 54.2W x 55.6D mm	50H x 50W x 33D mm	50H x 50W x 33D mm
Weight (head only)	0.16 kg	0.21 kg	0.48 kg	0.25 kg	0.24 kg	0.24 kg
ORDERING INFORMATION						
Product Name	UP19K-15S-H5	UP19K-30H-H5	UP19K-50L-H5	UP19K-110F-H9	UP19K-150W-H5	UP19K-200W-H9
Product Number (Including stand)	200173	200174	200175	200996	200177	200583
Add Extension for INTEGRA (USB)	-INT	-INT	-INT	-INT	-INT	-INT
Product Number (Including stand)	202616	202618	202620	202622	202624	
Add Extension for INTEGRA (RS-232)	-IDR	-IDR	-IDR	-IDR	-IDR	-IDR

Specifications are subject to change without notice

* 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.
 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.

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