AVAILABLE WITH integra

See page 36 for détails

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 15 J
5. **SMART INTERFACE**
   Containing all the calibration data

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

SEE ALSO

UP19-H

SPECIFICATIONS

NIST* Traceable

*Also traceable to NRC-CNRC

	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 [f] / 190 W [f]	200 W [f] / 200 W [f]
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/cm²	36 kW/cm²	36 kW/cm²	45 kW/cm²	36 kW/cm²	45 kW/cm²
Pulsed Laser Damage Thresholds	Max Energy Density			Peak Power Density		
1064 nm, 360 µs, 5 Hz	5 J/cm² (H5), 9 J/cm² (H9)			14 kW/cm² (H5), 25 kW/cm² (H9)		
1064 nm, 7 ns, 10 Hz	1 J/cm²			143 MW/cm²		
532 nm, 7 ns, 10 Hz	0.6 J/cm²			86 MW/cm²		
266 nm, 7 ns, 10 Hz	0.3 J/cm²			43 MW/cm²		
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	-INT	-INT	-INT	-INT	-INT	-INT
Product Number (Including stand)	202616	202618	202620	202622	202624	

** For the calibrated spectral range, see the user manual.*

a. Nominal value, actual value depends on electrical noise in the measurement system.
b. With Gentec-EO MAESTRO, UNO, P-LINK, TUNER and S-LINK 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

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