PRESENTATION

600 W
FAN-COOLED

- Noise: 45 mW
- Max Power: 600 W
- Aperture: 55 mm Ø
- Cooling:

UP55G-600F-HD

Unique on the market, the UP55G-600F-HD measures 600 W of continuous power WITHOUT THE NEED FOR WATER-COOLING. Just plug the fan and you are ready to go! This detector is the ideal choice for service technicians that wish to cut down on the setup times at each customer visit.

NEW Available with blu

Available with integra

700 W
COMPACT SIZE

- Noise: 45 mW
- Max Power: 700 W
- Aperture: 55 mm Ø
- Cooling:

UP55M-700W-HD

The UP55M-700W-HD is a very compact detector that measures up to 700 W of continuous power. Since it is based on our popular mid-power series UP55-H, it also features a fast response time and low noise level, ensuring quick and accurate measurements from the mW level to several hundreds of Watts.

NEW Available with blu

Available with integra

2 500 W
WIDE POWER RANGE

- Noise: 200 mW
- Max Power: 2 500 W
- Aperture: 55 mm Ø
- Cooling:

UP55C-2.5KW-HD

The UP55C-2.5KW-HD is very in demand because it measures both very low and very high powers (up to 2 500 W), thanks to a noise level of only 200 mW. It also has the fastest response time for a detector of its size. This is a compact and versatile detector that is more affordable than any other high power solution on the market.

Available with integra

4 000 W TO 15 000 W
LARGE APERTURE

- Noise: 3-10 W
- Max Power: 4 000 to 15 000 W
- Aperture: 125 mm Ø
- Cooling:

+USB

HP100A AND HP125A

The HP100A and HP125A are the smallest in our HP Series of high power detectors. They are versatile high power detectors that measure up to 15 kW of continuous power with a noise level of only a few Watts. As all the other HP detectors, those models feature a USB ouput for direct measurements on a PC and a very large aperture of 100 or 125 mm Ø.

PRESENTATION

10 000 W
SMALL BEAMS

- Noise: 10 W
- Max Power: 10 000 W
- Aperture: 60 mm Ø
- Cooling:

+USB

HP60A-10KW-GD

The gold reflector cone of the HP60A-10KW-GD is specifically designed to handle the high intensities of very small beams. By reflecting the incident light on the sides of the aperture, the cone effectively spreads the intensity on a larger area, thus raising the damage threshold to 10 kW/cm^2 @ the full power (10 kW). Also features a USB ouput for direct measurements on a PC.

25 000 W AND MORE
CUSTOM SHAPES

- Up to 100 000 W
- Up to 400 X 400 mm
- Cooling:

+USB

SUPER HP

Our unique high power design allows for infinite customization capabilities. The square and rectangular apertures shown here are just examples of our capabitlities, so do not hesitate to contact us with your specific needs. All our Super HP models feature a USB ouput for direct measurements on a PC as well as our standard DB-15 connector if you prefer to do the measurement using one of our power monitors.

500 W TO 10 000 W
PORTABLE PROBES

NEW

- Noise: 100 mW
- Max Power: 10 000 W
- Aperture: 55 mm Ø
- Cooling:

USB

PRONTO

The PRONTO Series of High Power Probes with Touch Screen Controls come in 4 models: 500, 3 000, 6 000 and 10 000 W, all in the same compact format that make them highly portable. Their integrated display is encased in a rugged metallic casing to withstand the harshest of environments. All models are available with a removable handle and 1.5 m soft cable.

BEAM DUMPS
FOR LASERS UP TO 12 000 W

- Rugged
- Easy-to-Use
- Absorb up to 12 000 W in Continuous Mode
- Large 100 mm Ø Aperture

BD-4KW-HE & BD-12KW-HD

Our new Beam Dumps are rugged and easy-to-use, simply plug the water-cooling and you're ready to go! Like our high power HP Detectors, these beam dumps have a highly resistant absorber that can withstand several kW in continuous mode. Their very large aperture of 100 mm in diameter accommodates even the largest beams. An isolation tube (available in option) helps reduce the back reflections. 2 models are offered: 4 kW and 12 kW.

AVAILABLE WITH integra
See page **36** for details
blu page **38**

UP55-HD

55 mm Ø, 45 mW - 2 500 W

KEY FEATURES

1. **HIGH DENSITY ABSORBER**
   The HD absorber is the strongest on the market for use at high powers, presenting both high average power handling and high power density capabilities

2. **UP55G-600F-HD - NO NEED FOR WATER-COOLING**
   Unique on the market, measure 600 W of continuous power WITHOUT THE NEED FOR WATER-COOLING. Just plug the fan and you are ready to go!

3. **UP55M-700W-HD - FAST AND COMPACT**
   A very compact detector that measures up to 700 W of continuous power.

4. **UP55C-2.5KW-HD - PERFORMANCE AND SPEED AT A LOW PRICE**
   Measures both very low and very high powers (up to 2 500W) with a fast response time. A compact and versatile detector that is more affordable than any other high power solution on the market.

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

AVAILABLE MODELS

UP55G-600F-HD
(600W-Fan-Cooled)

UP55M-700W-HD
(700W-Water-Cooled)

UP55C-2.5KW-HD
(2500W-Water-Cooled)

ACCESSORIES

Stand with Steel Post
(Model Number: 201102)

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

Fiber Adaptors and Connectors
(FC, SC or SMA)

3-Port Fiber Cylinder with
Adaptors and Plug

12V Power Supply
(Model Number: 202199)

Pelican Carrying Case

SEE ALSO

UP55-HD

CE NIST* Traceable WEEE/RoHS COMPLIANT

*Also traceable to NRC-CNRC

SPECIFICATIONS

	UP55G-600F-HD	UP55M-700W-HD	UP55C-2.5KW-HD
MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)	600 W / 600 W	700 W [f] / 700 W [f]	2 500 W / 2 500 W
EFFECTIVE APERTURE	55 mm Ø	55 mm Ø	55 mm Ø
COOLING METHOD	Fan-Cooled	Water-Cooled	Water-Cooled
MEASUREMENT CAPABILITY			
Spectral Range *	0.19 – 20 µm	0.19 – 20 µm	0.19 – 20 µm
Noise Equivalent Power [a]	45 mW	45 mW	200 mW
Rise Time (nominal) [b]	2.8 sec	2 sec	3.5 sec
Sensitivity (typ into 100 kΩ load) [c]	0.03 mV/W	0.03 mV/W	8 µV/W
Calibration Uncertainty [d]	±2.5 %	±2.5 %	±2.5 %
Repeatability	±0.5 %	±0.5 %	±0.5 %
Energy Mode			
Sensitivity	0.008 mV/J	0.008 mV/J	---
Maximum Measurable Energy [e]	200 J	200 J	---
Noise Equivalent Energy [a]	0.25 J	0.25 J	---
Minimum Repetition Period	12 sec	12 sec	---
Maximum Pulse Width	430 ms	430 ms	---
Accuracy with energy calibration option	±5 %	±5 %	---
DAMAGE THRESHOLDS			
Maximum Average Power Density			
1064 nm, 10 W, CW	45 kW/cm²	45 kW/cm²	45 kW/cm²
1064 nm, 500 W, CW	8 kW/cm²	8 kW/cm²	9 kW/cm²
1064 nm, 2 500 W, CW	---	---	6 kW/cm²
10.6 µm, 500 W, CW	---	---	4.5 kW/cm²
10.6 µm, 1 500 W, CW	---	---	3.5 kW/cm²
10.6 µm, 2 500 W, CW	---	---	3.0 kW/cm²
Pulsed Laser Damage Thresholds	Max Energy Density		Peak Power Density
1064 nm, 360 µs, 5 Hz	9 J/cm²		25 kW/cm²
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	55 mm Ø	55 mm Ø	55 mm Ø
Absorber (High Damage Threshold)	HD	HD	HD
Dimensions	120H x 120W x 135D mm	89H x 89W x 40D mm	116H x 116W x 48D mm
Weight (head only)	2.75 kg	0.90 kg	1.95 kg
ORDERING INFORMATION			
Product Name	UP55G-600F-HD-D0	UP55M-700W-HD-D0	UP55C-2.5KW-HD-D0
Product Number (without stand)	201878	201908	202174
Add Extension for INTEGRA (USB)	-INT / 203197	-INT / 203199	-INT / 203195
Add Extension for BLU	-BLU / 203721	-BLU / 203724	

Specifications are subject to change without notice // Compatible stand: P/N 201102

* *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 3 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.

HP

Up to 125 x 125 mm, 100 W – 15 000 W

KEY FEATURES

1. **HIGH POWER HANDLING**
   Handles up to 15 kW of continuous power with our standard models. Custom models available for higher powers (See SUPER HP)
2. **STABLE READING**
   Less sensitive to variations in water cooling temperature than other high power water-cooled meters on the market
3. **LARGE APERTURE**
   Our standard HP models (4KW, 12KW and 15KW) have very large effectives apertures of 100 mm Ø and 125 x 125 mm to accomodate large laser beams. Larger apertures with various shapes are available upon request (See SUPER HP)
4. **AVAILABLE WITH YAG AND CO_2 CALIBRATIONS**
   All HP Models can be calibrated at YAG and CO_2 wavelengths with a calibration uncertainty of ± 5%
5. **DIRECT USB CONNECTION TO A PC**
   Each head comes with both a DB-15 connector (for use with a Gentec-EO monitor) and a USB output for direct connection to a PC
6. **TRACK WATER PARAMETERS**
   Water flow and temperature are monitored in real time and displayed continuously

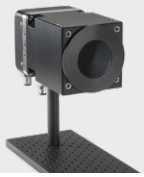
AVAILABLE MODELS

HP100A-4KW-HE and HP100A-12KW-HD (4000W and 12000W-Water-Cooled)

HP125A-15KW-HD (15000W-Water-Cooled)

HP60A-10KW-GD (10000W-Small Beams)

NOW AVAILABLE!



TUBE EXTENSION TO REDUCE BACK REFLECTIONS

The 4KW and 12KW models can be fitted with a 70 mm aperture water-cooled absorbing TUBE to reduce the back reflections below 4%. The TUBE extension is backward compatible so you can send your already purchased HP detector to be retrofitted*.

* The HP detector needs to be sent back to be retrofitted and recalibrated (Calibration is included)

ACCESSORIES

Stand with Steel Post (Model Number: 201102)

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

5 m USB Cable (Included)

Pelican Carrying Case

** A USB Power Adaptor will be necessary if the HP is used with a DB-15 Extension Cable.*

SEE ALSO

Watch the Introduction video available on our website at www.gentec-eo.com

HP

CE NIST* Traceable WEEE/RoHS COMPLIANT

*Also traceable to NRC-CNRC

SPECIFICATIONS

	HP100A-4KW-HE		HP100A-12KW-HD		HP125A-15KW-HD		HP60A-10KW-GD	
MAX AVERAGE POWER	4 000 W		12 000 W		15 000 W		10 000 W High Average Power up to 10 kW/cm²	
EFFECTIVE APERTURE	100 mm Ø (70 mm Ø with tube)		100 mm Ø (70 mm Ø with TUBE)		125 x 125 mm		60 mm Ø with cone reflector	
COOLING METHOD	Water-Cooled		Water-Cooled		Water-Cooled		Water-Cooled	
MEASUREMENT CAPABILITY								
Spectral Range	0.19 – 20 µm		0.19 – 20 µm		0.19- 20 µm		0.8 – 12 µm	
Noise Equivalent Power [a]	±3 W		±10 W		± 15 W		±10 W	
Minimum Average Power [b]	100 W		300 W		500 W		300 W	
Rise Time (nominal)	7 sec		9 sec		15 sec		11 sec	
Back Reflections	Alone	with TUBE	Alone	with TUBE	Alone		Alone	
	10-15%	<4%	10-15%	<4%	10-15%		N/A	
Sensitivity (typ into 100 kΩ load)	0.4 mV/W		0.15 mV/W		0.13 mV/W		0.2 mV/W	
Calibration Uncertainty	±5 % @ 1064 nm		±5 % @ 1064 nm		±5 % @ 1064 nm		±5 % @ 1064 nm	
Repeatability	±2 %		±2 %		±2 %		±2 %	
Linearity with Power	±1.5 %		±1.5 %		±2 %		±2 %	
Linearity vs Beam Diameter	±1 %		±1 %		±1 %		< 35 mm Ø: ±0.5 % > 35 mm Ø: ±1.5 %	
Linearity vs Beam Position	±1.7 % [c]		±1.7 % [c]		±1.0 % [c]		±3 % [c]	
DAMAGE THRESHOLDS								
Maximum Average Power Density [d]								
500 W	10 kW/cm²		16 kW/cm²		16 kW/cm²		---	
4 kW	4 kW/cm²		---		---		---	
5 kW	---		6.5 kW/cm²		6.5 kW/cm²		---	
10 kW	---		3.5 kW/cm²		3.5 kW/cm²		< 35 mm Ø: 10 kW/cm² > 35 mm Ø: 3.5 kW/cm²	
15 kW	---		---		1.5 kW/cm²		---	
PHYSICAL CHARACTERISTICS								
Effective Aperture	Alone	with TUBE	Alone	with TUBE	Alone		Alone	
	100 mm Ø	70 mm Ø	100 mm Ø	70 mm Ø	125 x 125 mm		60 mm Ø (Optimized for 35 mm Ø)	
Absorber (High Damage Threshold)	HE		HD		HD		GD (cone reflector)	
Required Cooling Flow	(4 - 6) LPM < ±1 LPM/min [e]		(6 - 10) LPM < ±1 LPM/min [e]		(8 - 10) LPM < ±1 LPM/min [e]		(6 - 10) LPM < ±1 LPM/min [e]	
Cooling Water								
Temperature Range	15 – 25 °C		15 – 25 °C		15 – 25 °C		15 – 25 °C	
Rate of Temperature Change	< ±3°C/min		< ±3°C/min		< ±3°C/min		< ±3°C/min	
Maximum Water Pressure (input)	413 kPa (60 psi)		413 kPa (60 psi)		413 kPa (60 psi)		413 kPa (60 psi)	
Output Connectors	DB-15 cable & USB port		DB-15 cable & USB port		DB-15 cable & USB port		DB-15 cable & USB port	
PCB Electrical Supply	Through USB or Gentec-EO monitors [f]		Through USB or Gentec-EO monitors [f]		Through USB or Gentec-EO monitors [f]		Through USB or Gentec-EO monitors [f]	
Maximum Output Signal	2 V[g]		2 V[g]		2 V[g]		2 V[g]	
Dimensions	Alone	with TUBE	Alone	with TUBE	Alone		Alone	
	127H x 127W x 74D mm	127H x 127W x 234D mm	127H x 127W x 70D mm	127H x 127W x 230D mm	153H x 153W x 70D mm		127H x 127W x 90D mm	
Weight (head only)	1.8 kg	6.0 kg	3.3 kg	7.5 kg	5 kg		5 kg	
ORDERING INFORMATION	Alone	with TUBE	Alone	with TUBE				
Product Name	HP100A-4KW-HE	-TUBE-D0	HP100A-12KW-HD	-TUBE-D0	HP125A-15KW-HD		HP60A-10KW-GD	
Product Number (without stand)	202207	203151	201328	202687	202631		201305	

Specifications are subject to change without notice // Compatible stand: P/N 201102

a. Nominal value, actual value depends on electrical noise in the measurement system.
b. For lower powers, call your Gentec-EO representative.
c. For a beam size of 20% of the aperture area, moved across 80% of the aperture area.
d. At 1064 nm, 1.07-1.08 µm and 10.6 µm.
e. > 1 min. contact gentec-eo for deionized water cooling module option.
f. A USB power adaptor will be necessary if the hp is used with a db-15 extension cable.
g. 12 V maximum output signal available upon request

SUPER HP

Custom Sizes and Shapes, up to 100,000 W upon request

KEY FEATURES

1. **THE HIGHEST POWER HANDLING**
   Custom models handle up to 100 000 W of continuous power
2. **STABLE READING**
   Less sensitive to variations in water cooling temperature than any other high power water-cooled meter on the market
3. **INFINITE CUSTOMIZATION CAPABILITIES**
   1. Choose YOUR size
   2. Choose YOUR maximum power
   3. We will customize one just for you!
4. **COMPACT AND LIGHT WEIGHT**
   Lighter and more compact than any other high power detector on the market, thanks to our unique design
5. **AVAILABLE WITH YAG AND CO_2 CALIBRATIONS**
   All HP Models can be calibrated at YAG and CO_2 wavelengths with a calibration uncertainty of ±5%
6. **DIRECT USB CONNECTION TO A PC**
   Each head comes with both a DB-15 connector (for use with a Gentec-EO monitor) and a USB2.0 output for direct connection to a PC. Other connectors available upon request
7. **TRACK WATER PARAMETERS**
   Water flow and temperature are monitored in real time and displayed continuously
8. NEW **HIGH POWER NIST-TRACEABLE CALIBRATION WITH A 5 KW FIBER LASER**

AVAILABLE MODELS (CUSTOM BUILT)

HP280/100A-10KW-HD
(10 kW-Water-Cooled)

HP210A-25KW-HD
(25 kW-Water-Cooled)

HP280-30KW-HD
(30 kW-Water-Cooled)

ACCESSORIES

Stand with Steel Post
For 25 kW Model

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

5 m USB Cable
(Included)

Pelican Carrying Case

SEE ALSO

Watch the Introduction video available on our website at www.gentec-eo.com

SUPER HP

CE NIST* Traceable WEEE/RoHS COMPLIANT

*Also traceable to NRC-CNRC

SPECIFICATIONS

	HP280/100A-10KW-HD	HP210A-25KW-HD	HP280A-30KW-HD	CUSTOMIZATION CAPABILITIES
MAX AVERAGE POWER	10 000 W	25 000 W	30 000 W	Up to 100 000 W
EFFECTIVE APERTURE	280 x 100 mm	210 x 210 mm	280 x 280 mm	Up to 400 x 400 mm
COOLING METHOD	Water-Cooled	Water-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
Noise Equivalent Power [a]	±10 W	±20 W	±25 W	Adapted to Maximum Power
Minimum Average Power [b]	300 W	500 W	1 000 W	Adapted to Maximum Power
Rise Time (nominal)	20 sec	25 sec	25 sec	≤ 45 sec
Sensitivity (typ into 100 kΩ load)	0.2 mV/W	0.08 mV/W	0.07 mV/W	Adapted to Maximum Power
Calibration Uncertainty				
@ 1064 nm	±5 %			±5 %
@ 0.25- 2.5 µm	±6 %			±6 %
Repeatability	±2 %			±2 %
Linearity with Power	±2 %			±2 %
Linearity vs Beam Diameter [c]	±2 %			±2 %
DAMAGE THRESHOLDS				
Maximum Average Power Density [d]				
10 kW	2.5 kW/cm²	2.5 kW/cm²	2.5 kW/cm²	2.5 kW/cm²
25 kW	---	0.25 kW/cm²	---	0.25 kW/cm²
30 kW	---	---	0.2 kW/cm²	0.2 kW/cm²
PHYSICAL CHARACTERISTICS				
Effective Aperture	280 x 100 mm	210 x 210 mm	280 x 280 mm	Square Apertures Up to 400 x 400 mm Rectangular and Round Apertures also available
Absorber (High Damage Threshold)	HD			HD
Required Cooling Flow	(6 - 10) LPM < ±1 LPM/min [f]	(12 - 15) LPM < ±1 LPM/min [f]	0-30 kW: (15 - 18) LPM < ±1 LPM/min [f] 0-10 kW: (8 - 12) LPM < ±1 LPM/min [f]	Adapted to Maximum Power
Cooling Water				
Temperature Range	15 – 25 °C			15 – 25 °C
Rate of Temperature Change	< ±3°C/min			< ±3°C/min
Output Connectors	DB-15 cable & USB port			DB-15 cable & USB port
PCB Electrical Supply	Through USB or Gentec-EO Monitors			Through USB or Gentec-EO Monitors
Maximum Output Signal	2 V			Analog Output 2V or 12V
Dimensions	152H x 305W x 75D mm	229H x 229W x 80D mm	300H x 300W x 92D mm	
Weight (head only)	11 kg	16 kg	20 kg	
ORDERING INFORMATION				
Product Name	HP280/100A-10KW-HD	HP210A-25KW-HD	HP280A-30KW-HD	Please call for more information on our customization capabilities

Specifications are subject to change without notice

a. Nominal value, actual value depends on electrical noise in the measurement system.
b. For lower powers, call your Gentec-EO representative.
c. For a centered beam with size from 20% to 80% of the total aperture.
d. At 1064 nm, 1.07-1.08 µm and 10.6 µm.
e. Average period > 1 min.
f. > 1min

PRONTO

1 W - 10 kW High Power Probes with Touch Screen Controls

NEW

KEY FEATURES

1. **WIDE POWER RANGE**
   Very low noise level = wide power range with just one device
2. **CONTINUOUS READINGS AT LOW POWERS**
   The Pronto-500 includes a continuous power mode (CWP) for measurements up to 40 W.
3. **NO-WAIT MEASUREMENTS**
   5 seconds measurements allow for very short cooling time (all models except PRONTO-3K)
4. **EASY-TO-USE**
   The touch screen color LCD allows for a friendly user interface. You can make a measurement with just the touch of a button!
5. **DATA LOGGING**
   Save your data to the internal memory and then transfer it to your PC over the USB connection.
6. **LARGE APERTURE**
   55 mm Ø aperture to accommodate large beams
7. **RUGGED**
   - All-metal body
   - High Damage Thresholds

AVAILABLE MODELS

PRONTO-500
(500 W)

PRONTO-3K
(3 kW)

PRONTO-(6K/10K)
(6 & 10 kW)

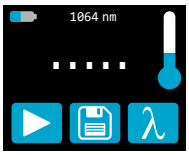
USER INTERFACE (SSP MODE)

Make a measurement in just a few seconds

1 → 2 → 3 → 4

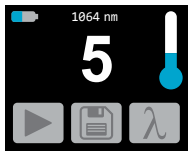
Press PLAY

Ready



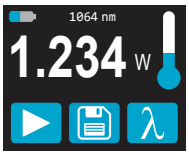
The device waits for a laser beam

Countdown



Automatically starts when exposed to a laser beam

Measurement complete!



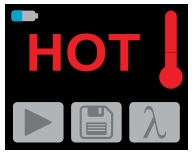
The value is displayed until the next measurement

Adjust the Wavelength and Calibration

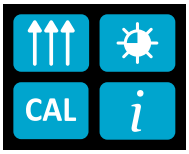
Wavelength

Calibration

Warns you when the device is too hot*



Set the Brightness and Orientation



ACCESSORIES

Stand with Steel Post
(Model Number: 200234)

Pelican Carrying Case

PRONTO

CE NIST* Traceable WEEE/RoHS COMPLIANT

*Also traceable to NRC-CNRC

SPECIFICATIONS

	NEW PRONTO-500		NEW PRONTO-3K		NEW PRONTO-6K		NEW PRONTO-10K	
MAX AVERAGE POWER								
SSP Mode (Measures Power in 5 sec)	500 W		3 000 W		6 000 W		10 000 W	
CWP Mode (Measures Power continuously)	40 W		N/A		N/A		N/A	
EFFECTIVE APERTURE	55 mm Ø							
COOLING METHOD	Convection							
MEASUREMENT CAPABILITY								
Spectral Range	0.19 – 20 µm							
Calibrated Spectral Range [a]	0.248 - 2.5 µm and typical 10.6 µm							
Noise Equivalent Power	0.1 W		5 W		20 W		30 W	
Response Time	5 sec (2 sec in CWP mode)		10 sec		5 sec		5 sec	
Calibration Uncertainty	±3 % (±2.5 % in CWP mode)		±5 %		±5 %		±5 %	
Number of Readings Before Cooling [b]	100 W	25 (200 sec)	0.5 kW	6 (72 sec)	1 kW	6 (36 sec)	1 kW	10 (60 sec)
(Maximum Exposure Time Before Cooling)	200 W	12 (100 sec)	1 kW	3 (36 sec)	2 kW	3 (18 sec)	2 kW	5 (30 sec)
	300 W	8 (60 sec)	1.5 kW	2 (24 sec)	3 kW	2 (12 sec)	5 kW	2 (12 sec)
	500 W	5 (40 sec)	3 kW	1 (12 sec)	6 kW	1 (6 sec)	10 kW	1 (6 sec)
DAMAGE THRESHOLDS								
Maximum Average Power Density								
1064 nm, 100 W, CW	25 kW/cm^2		---		---		---	
1064 nm, 500 W, CW	5 kW/cm^2		7 kW/cm^2		---		---	
1064 nm, 3000 W, CW	---		5 kW/cm^2		8 kW/cm^2		---	
1064 nm, 6000 W, CW	---		---		7 kW/cm^2		7 kW/cm^2	
1064 nm, 10000 W, CW	---		---		–		5.5 kW/cm^2	
Maximum Allowable Casing Temperature	65 °C		65 °C		75 °C		75 °C	
GENERAL SPECIFICATIONS								
Display Type	Touch Screen Color LCD							
Display Size	28.0 x 35.0 mm (128 x 160 pixels)							
Backlight	Adjustable							
Internet Upgrades Via	USB port							
Data Storage	50,000 pts							
Battery Type	Rechargeable Li-ion							
Battery Life	17 hours or 4 200 measurements (with brightness set at 25%)							
Battery Recharge Via	USB port							
Operating Temperature Range	15 - 28 °C (max 80% RH)							
PHYSICAL CHARACTERISTICS								
Effective Aperture	55 mm Ø							
Dimensions (Sensor Head)	88W x 88L x 32D mm (194L with handle)		88W x 88L x 36D mm (194L with handle)		88W x 88L x 36D mm (194L with handle)		88W x 88L x 46D mm (194L with handle)	
Dimensions (Monitor)	41W x 140L x 16D mm							
Weight	930 g		1240 g		1520 g		2150 g	
ORDERING INFORMATION								
Common Product Name	Pronto-500		Pronto-3K		Pronto-6K		Pronto-10K	
Product Number (without stand)	203466		203468		203469		203470	

Specifications are subject to change without notice // Compatible stand: P/N 200234

a. For calibration at 10.6 µm, add C02-CAL-UP-1 to the order
b. Assuming an exposure time of 8 seconds and for 25°C starting temperature.

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BEAM DUMPS

Water-Cooled Beam Dumps for High Power Lasers

KEY FEATURES

1. **EASY-TO-USE**
   Just plug the water-cooling and you're done!

2. **2 MODELS TO CHOOSE FROM**
   - 4 kW : BD-4KW-HE
   - 12 kW : BD-12KW-HD

3. **VERY LARGE APERTURE**
   The round aperture of 100 mm in diameter accommodates even the largest beams

4. **HIGH DAMAGE THRESHOLDS**
   Up to 16 kW/cm^2 (at 500 W)

5. **ISOLATION TUBE IN OPTION**
   It is possible to add an isolation tube to reduce back reflections

AVAILABLE MODELS

BD-4KW-HE
4 kW Beam Dump

BD-12KW-HD
12 kW Beam Dump

ACCESSORIES

Stand with Steel Post
(Model Number: 201102)

Pelican Carrying Case

SEE ALSO

BEAM DUMPS

SPECIFICATIONS

	BD-4KW-HE	BD-12KW-HD
MAX AVERAGE POWER (CONTINUOUS / 2 MINUTES)	4 000 W / 4 500 W	12 000 W / 12 000 W
EFFECTIVE APERTURE	100 mm Ø	100 mm Ø
COOLING METHOD	Water-Cooled	Water-Cooled
DAMAGE THRESHOLDS		
Maximum Average Power Density [a]		
500 W	10 kW/cm^2	16 kW/cm^2
4 kW	4 kW/cm^2	---
5 kW	---	6.5 kW/cm^2
10 kW	---	3.5 kW/cm^2
PHYSICAL CHARACTERISTICS		
Effective Aperture	100 mm Ø	100 mm Ø
Absorber (High Damage Threshold)	HE	HD
Required Cooling Flow	(4 - 6) LPM < ±1 LPM/min [b]	(6 - 10) LPM < ±1 LPM/min [b]
Temperature of Cooling Water	(15 - 25) °C < ±3°C/min [b]	(15 - 25) °C < ±3°C/min [b]
Dimensions	127H x 127W x 74D mm	127H x 127W x 70D mm
Weight (head only)	1.8 kg	3.3 kg
ORDERING INFORMATION		
Product Name	BD-4KW-HE-D0	BD-12KW-HD-D0
Product Number (without stand)	202936	202938

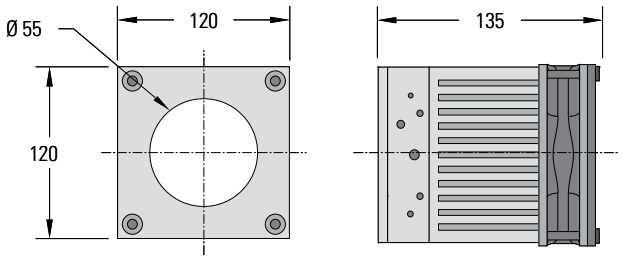
Specifications are subject to change without notice // Compatible stand: P/N 201102

a. At 1064 nm, 1.07-1.08 µm and 10.6 µm.
b. > 1 min. Contact Gentec-EO for clean deionized water cooling module option.

TECHNICAL DRAWINGS

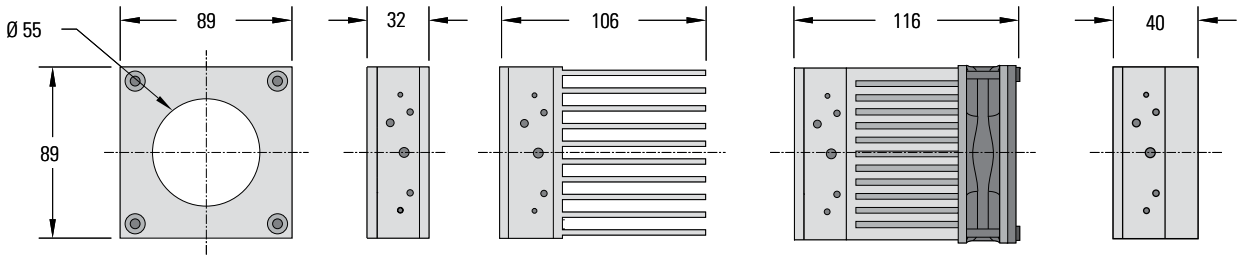
All dimensions in mm

UP55G-600F-HD



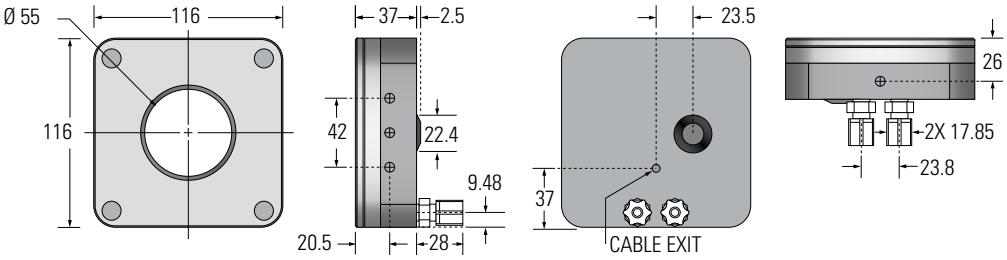
FRONT S-SIDE

UP55M-700W-HD



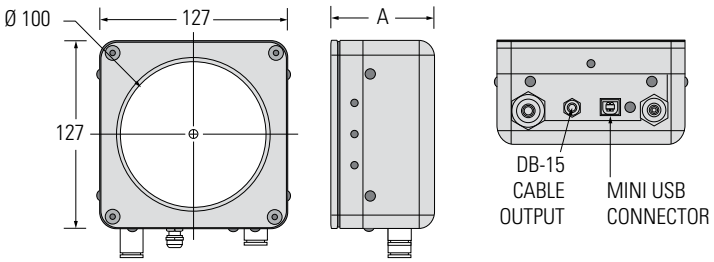
FRONT S-SIDE H-SIDE F-SIDE W-SIDE

UP55C-2.5KW-HD



FRONT SIDE REAR BOTTOM

HP100A



FRONT SIDE BOTTOM

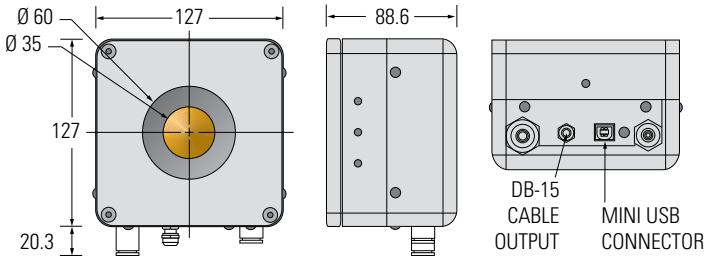
MODEL	DIM. A
4KW	74
12KW	70

All dimensions in mm

TECHNICAL DRAWINGS

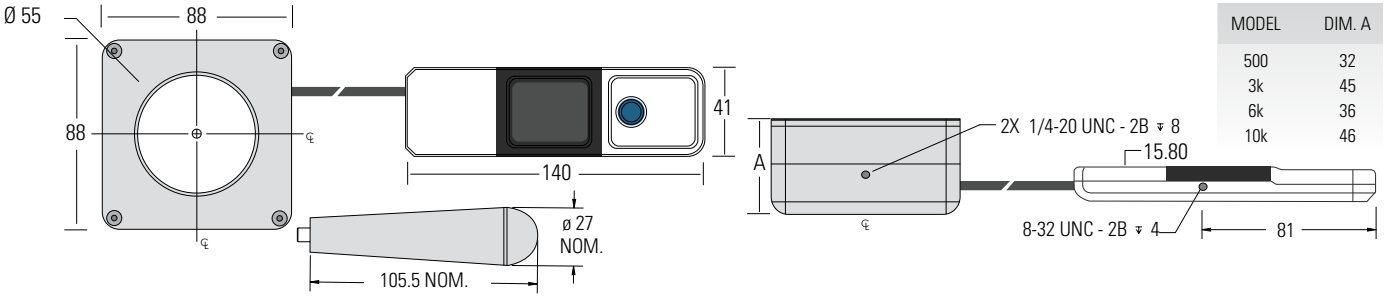
All dimensions in mm

HP60A-10KW-GD



FRONT SIDE SIDE

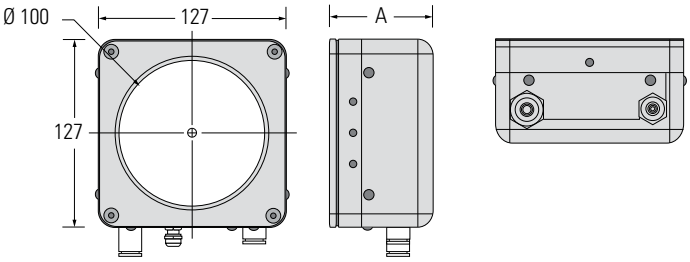
PRONTO-500/3K/6K/10K



MODEL	DIM. A
500	32
3k	45
6k	36
10k	46

FRONT SIDE

BEAM DUMPS



MODEL	DIM. A
4KW	74
12KW	70

FRONT SIDE BOTTOM