AVAILABLE WITH integra

See page **36** for details

XLP12

12 mm Ø, 0.5 µW - 3 W – Low Power Thermopile

KEY FEATURES

1. **LOW POWER THERMOPILE**
   Noise level of a photo detector with the large bandwidth and high power capacity of a thermal device
2. **MINIMAL THERMAL DRIFT**
   Only 6 µW/°C (with the IR filter)
3. **HIGH SENSITIVITY**
   200 mV/W (without the IR filter)
4. **SPECIAL MODEL FOR ULTRASHORT PULSES**
   VP (Volume Absorber) version is perfect for low power lasers with ultrashort pulses (ps and fs)
5. **IR FILTER (XLPF12 MODEL)**
   Removes unwanted IR interference
6. **ISOLATION TUBE**
   Eliminates power fluctuations created by air turbulence
7. **SMART INTERFACE**
   Containing all the calibration data
8. integra **OPTIONS**
   - Standard: USB Output (-INT)
   - In Option: RS-232 Output (-IDR)

AVAILABLE MODELS

XLP12-3S-H2
(3W-Broadband)

XLPF12-3S-H2
(3W-Broadband-IR Filter)

XLP12-3S-VP
(3W-Volume Absorber)

ACCESSORIES

Stand with Steel Post
(Model Number: 200160)

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

IR Filter
(Mounted)

Fiber Adaptors & Connectors
(FC, ST and SMA)

Pelican Carrying Case

SEE ALSO

XLP12

CE NIST* Traceable WEEE/RoHS COMPLIANT

*Also traceable to NRC-CNRC

SPECIFICATIONS

	XLP12-3S-H2	XLPF12-3S-H2	XLP12-3S-VP
MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)	3 W / 3 W Broadband Absorber	3 W / 3 W Broadband Absorber, with IR Filter	3 W / 3 W Volume Absorber
EFFECTIVE APERTURE	12 mm Ø	12 mm Ø	12 mm Ø
COOLING METHOD	Convection	Convection	Convection
MEASUREMENT CAPABILITY			
Spectral Range	0.19 – 20 µm *	0.28 – 2.1 µm [a]	0.25 – 20 µm *
Noise Equivalent Power [b]	0.5 µW	0.5 µW	0.5 µW
Thermal Drift [c]	12 µW/°C	6 µW/°C	12 µW/°C
Rise Time (nominal) [d]	2.5 sec	2.5 sec	3 sec
Sensitivity (typ into 100 kΩ load) [e]	200 mV/W	180 mV/W	220 mV/W
Calibration Uncertainty [f]	±2.5 %	±2.5 %	±2.5 %
Repeatability	±0.5 %	±0.5 %	±0.5 %
Energy Mode			
Sensitivity	25 mV/J	22.5 mV/J	---
Maximum Measurable Energy [g]	5 J	5 J	---
Noise Equivalent Energy [b]	12 µJ	12 µJ	---
Minimum Repetition Period	16 sec	16 sec	---
Maximum Pulse Width	300 ms	300 ms	---
Accuracy with energy calibration option	±5 %	±5 %	---
DAMAGE THRESHOLDS			
Maximum Average Power Density [h]	1 kW/cm²	1 kW/cm²	30 W/cm² @ 1064 nm 8 W/cm² @ 532 nm 4 W/cm² @ 355 nm

Pulsed Laser Damage Thresholds	Max Energy Dens.	Peak Power Dens.	Max Energy Dens.	Peak Power Dens.	Max Energy Dens.	Peak Power Dens.
1064 nm, 360 µs, 5 Hz	5 J/cm²	14 kW/cm²	5 J/cm²	14 kW/cm²	---	---
1064 nm, 7 ns, 10 Hz	1 J/cm²	143 MW/cm²	1 J/cm²	143 MW/cm²	4 J/cm²	571 MW/cm²
532 nm, 7 ns, 10 Hz	0.6 J/cm²	86 MW/cm²	0.6 J/cm²	86 MW/cm²	3 J/cm²	429 MW/cm²
355 nm, 7 ns, 10 Hz	---	---	---	---	1 J/cm²	143 MW/cm²
266 nm, 7 ns, 10 Hz	0,3 J/cm²	43 MW/cm²	0,3 J/cm²	43 MW/cm²	---	---

PHYSICAL CHARACTERISTICS			
Effective Aperture	12 mm Ø	12 mm Ø	12 mm Ø
Absorber (High Damage Threshold)	H2	H2	VP (Volume Absorber)
Dimensions	73H x 73W x 20D mm (72D mm with tube)	73H x 73W x 28D mm (80D mm with tube)	73H x 73W x 20D mm (72D mm with tube)
Weight (head only)	0.31 kg	0.32 kg	0.32 kg
ORDERING INFORMATION			
Product Name	XLP12-3S-H2-D0	XLPF12-3S-H2-D0	XLP12-3S-VP-D0
Product Number (without stand)	201032	201077	202227
Add Extension for INTEGRA (USB)	-INT	-INT	-INT
Product Number (without stand)	202609	202611	203031
Add Extension for INTEGRA (RS-232)	-IDR	-IDR	-IDR

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

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

a. This spectral range refers to the calibration traceability. For details, please contact us at: info@gentec-eo.com.
b. Nominal value, actual value depends on electrical noise in the measurement system.
c. With Gentec-EO MAESTRO.
d. With anticipation.
e. Maximum output voltage = sensitivity x maximum power.
f. Including linearity with power.
g. For 360 µs pulses. Higher pulse energy possible when customized for long pulses (ms), less for short pulses (ns).
h. At 1064 nm, 1 W CW.

PHOTONIC SOLUTIONS
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