

XLP12



12 mm Ø, 1 µW - 3 W, eXtreme Low Power



Key Features

- 1 **Low Power Thermopile**
Noise level of a photo detector with the large bandwidth of a thermal device
- 2 **Minimal Thermal Drift**
Only 6 µW/°C (with the IR filter)
- 3 **Very High Sensitivity**
200 mV/W (without the IR filter)
- 4 **IR Filter (XLP12F Model)**
Removes unwanted IR interference
- 5 **Isolation Tube**
Eliminates power fluctuations created by air turbulence
- 6 **Smart Interface**
Containing all the calibration data



XLP12-3S-H2

XLP12F-3S-H2
(with IR Filter)



NEW

See also

. How it works	14
. Calibration	6
. Detailed dimensions	74
. Spectral absorption	107
. Compatible monitors	
SOLO 2	20
UNO	22
S-LINK-2	24
P-LINK	26

Accessories

» IR Filter

Improve the stability of your readings by removing any influence from outside IR radiations.

» Extension Cables (4, 15, 20 and 25 m)

For some OEM, manufacturing and laboratory applications.





» Pelican Carrying Case

We offer a robust hard shell polymer carrying case.



SPECIFICATIONS

Models	XLP12-3S-H2	XLP12F-3S-H2
		
Max Average Power (continuous)	3 W	3 W
Max Average Power (1 minute)	3 W	3 W

MEASUREMENT CAPABILITY	XLP12-3S-H2	XLP12F-3S-H2
Spectral Range	0.19 – 20 μm	0.28 – 1.36 μm
Noise Equivalent Power ^a	$\pm 0.5 \mu\text{W}$	$\pm 0.5 \mu\text{W}$
Thermal Drift ^b	12 $\mu\text{W}/^\circ\text{C}$	6 $\mu\text{W}/^\circ\text{C}$
Rise Time (nominal) ^c	2.5 sec	2.5 sec
Sensitivity (typ into 100 k Ω load) ^d	200 mV/W	180 mV/W
Calibration Uncertainty ^e	$\pm 2.5 \%$	$\pm 2.5 \%$
Repeatability	$\pm 0.5 \%$	$\pm 0.5 \%$
Energy Mode		
Sensitivity	25 mV/J	25 mV/J
Maximum Measurable Energy ^f	5 J	5 J
Noise Equivalent Energy ^a	12 μJ	12 μJ
Minimum Repetition Period	16 sec	16 sec
Maximum Pulse Width	300 ms	300 ms
Accuracy with energy calibration option	$\pm 5 \%$	$\pm 5 \%$

DAMAGE THRESHOLDS

Maximum Average Power Density ^g	1 kW/cm ²	1 kW/cm ²
Pulsed Laser Damage Thresholds	Max Energy Density	Peak Power Density
1064 nm, 360 μs , 5 Hz	5 J/cm ²	14 kW/cm ²
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 Diameter	12 mm \emptyset	12 mm \emptyset
Absorber (High Damage Threshold)	H2	H2
Dimensions	73H x 73W x 20D mm (72D mm with tube)	73H x 73W x 28D mm (80D mm with tube)
Weight (head only)	0.31 kg	0.32 kg

ORDERING INFORMATION

Full Product Name	XLP12-3S-H2	XLP12F-3S-H2
Product Number (including stand)	201035	201078

a. Nominal value, actual value depends on electrical noise in the measurement system.

b. With Gentec-EO SOLO 2.

c. With Gentec-EO SOLO, UNO, P-LINK and S-LINK-2 monitors.

d. Maximum output voltage = sensitivity x maximum power.

e. Including linearity with power.

f. For 360 μs pulses. Higher pulse energy possible when customized for long pulses (ms), less for short pulses (ns).

g. At 1064 nm, 1 W CW.