

激光功率传感器

Ophir 提供两类功率传感器：光电二极管传感器和热传感器。光电二极管传感器用于皮瓦至数百毫瓦的低功率，最高 3W。热传感器用于低至几分之一毫瓦到数十或数千瓦的功率。热传感器还可测量脉冲率不超过每 5 秒 1 个脉冲的单次脉冲能量。

激光光电二极管传感器



说明：

光电二极管传感器在较大的光功率级范围内具有高线性度：从几分之一毫瓦到 2mW 左右。高于该光级时，对应大约 1 mA 的电流，传感器饱和，并且读数错误偏低。因此，大多数 Ophir 光电二极管传感器具有内置和可拆卸式衰减器，允许测量高达 3 W 的功率，且不发生饱和。

Standard photodiode sensors - 10pW - 3W

Sensor	Features	Aperture	Spectral Range	Power Range
PD300	Automatic background subtraction	10x10mm	350-1100nm	500pW-300mW
PD300-1W	Automatic background subtraction	10x10mm	350-1100nm	500pW-1W
PD300-3W	High power	10x10mm	350-1100nm	5nW-3W
PD300-TP	Very thin profile (4mm only)	10x10mm	350-1100nm	50pW-1W
PD300-UV	Wide spectral range and low noise	10x10mm	200-1100nm	20pW-300mW
PD300-UV-193	PD300-UV with additional calibration at 193nm	10x10mm	200-1100nm	20pW-300mW
PD300-IR	Infrared	Ø5mm	700-1800nm	5nW-300mW
PD300-IRG	Very low noise 300 femto watts	Ø5mm (max)	800-1700nm	10pW-150mW

Round photodiode sensors - 20pW - 3W

Sensor	Features	Aperture	Spectral Range	Power Range
PD300R	Same as PD300, circular for easy centering	Ø10mm	350-1100nm	500pW-300mW
PD300R-3W	Same as PD300-3W, circular geometry	Ø10mm	350-1100nm	5nW-3W
PD300R-UV	Same as PD300-UV, circular geometry	Ø10mm	200-1100nm	20pW-300mW
PD300R-IR	Same as PD300-IR, circular geometry	Ø5mm	700-1800nm	5nW-300mW

Special photodiode sensors - 50pW - 50mW and 20mLux - 200kLux

Sensor	Features	Aperture	Spectral Range	Power Range
PD300-BB	Flat spectral response from 430 to 1000nm	10x10mm	430-1000nm	50pW-4mW
PD300-BB-50mW	For broadband light sources to 50mW	10x10mm	430-1000nm	50pW-50mW
PD300-CIE	Measurement in units of Lux or foot candles	2.4x2.8mm	400-700nm	20mLux-200kLux
BC20	Meter for scanned beams at up to 30,000 inch/s	10x10mm	633, 650, 675nm	100µW-20mW

Integrating Spheres

Sensor	Features	Aperture	Spectral Range	Power Range
Small dimensions 1.5"				
3A-IS	Integrating sphere for divergent beams to 3W	Ø12mm	350-1100nm	1µW-3W
3A-IS-IRG	Integrating sphere for divergent beams to 3W for near IR	Ø12mm	800-1700nm	1µW-3W
Large dimensions 5.3"				
IS6-C	6" Integrating sphere for collimated light sources	Ø25.4mm (1")	200-2200nm	Depends on detector
IS6-D	6" Integrating sphere for divergent light sources	Ø63.5mm (2.5")	200-2200nm	Depends on detector
IS6 detectors				
IS-PD300R-VIS-NC	Sensor for IS6, 430-1100nm , 30W, uncalibrated	N/A	430-1100nm	1µW-30W
IS-PD300R-UV-NC	Sensor for IS6, 220 -1100nm , 1W, uncalibrated	N/A	220 -1100nm	10nW-1W
IS-PD300R-IR-NC	Sensor for IS6, 700-1800nm , 30W, uncalibrated	N/A	700-1800nm	30nW-30W
IS-PD300R-CIE-NC	Sensor for IS6, photopic, 500 lumen, uncalibrated	N/A	400-700nm	100µlm-500lm

LED measurement – UV, VIS, NIR

Sensor	Features	Aperture	Spectral Range	Power Range
3A-IS	12mm aperture Integrating sphere for 350-1100nm, 3W	Ø12mm	350-1100nm	1µW-3W
PD300-UV	Photodiode with wide spectral range	10x10mm	200-1100nm	20pW-300mW
PD300R-UV	Same as PD300 with circular geometry for easy centering	Ø10mm	200-1100nm	20pW-300mW
3A	Very low powers	Ø9.5mm	0.19-20µm	10µW-3W