50pW to 3W

Features

- Very large dynamic range
- Swivel mount for hard to measure places
- Comes with filter in / filter out options
- Patented automatic background subtraction
- Fiber optic adapters available

PD300 with filter off

PD300 with filter installed

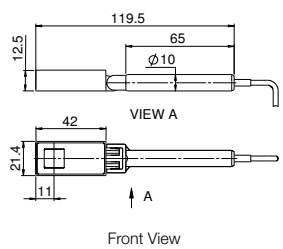
PD300-TP Mounted on stand

Model	PD300			PD300-1W			PD300-3W			PD300-TP		
Use	General			Powers to 1W			Powers to 3W			Thin profile for tight fit		
Detector Type	silicon			silicon			silicon			silicon		
Aperture	10x10mm			10x10mm			10x10mm			10x10mm		
Filter Mode	Filter out		Filter in	Filter out		Filter in	Filter out		Filter in	Filter out		Filter in
Spectral Range nm	350-1100		430-1100	350-1100		430-1100	350-1100		430-1100	350-1100		400-1100
Power Range	500pW to 30mW		200µW to 300mW	500pW to 30mW		200µW to 1W	5nW to 100mW		200µW to 3W	50pW to 3mW		20µW to 1W
Power Scales	30mW to 30nW and dBm		300mW to 300µW and dBm	30mW to 30nW and dBm		1W to 300µW and dBm	100mW to 300nW and dBm		3W to 300µW and dBm	3mW to 3nW and dBm		1W to 300µW and dBm
Resolution nW	0.01		NA	0.01		NA	0.1		NA	0.001		1
Maximum Power vs. Wavelength	nm	mW	mW	nm	mW	mW	nm	mW	mW	nm	mW	mW
	<488	30	300	<488	30	1000	<488	100	3000	350-400	3	NA
	633	20	300	633	20	1000	633	100	3000	400-500	3	1000
	670	13	200	670	13	1000	670	100	2000	600	2.5	1000
	790	10	100	790	10	600	790	100	1200	700	2	500
	904	10	100	904	10	700	904	100	1200	800-950	1.5	300
	1064	25	250	1064	25	1000	1064	100	2200	1064	3	500
Accuracy (including errors due to temp. variations)												
% error vs Wavelength nm	±10	360-400	NA	±10	360-400	NA	±10	360-400	NA	±7	350-400	NA
	±3	400-980	±5 980-1100	±3	400-950	±5 950-1030	±3	400-950	±5 950-1030	±3	400-450	±5 450-950
	±5	980-1100	±7	±4	950-1030	±6 1030-1100	±4	950-1030	±6 1030-1100	±2	450-950	±3 950-1100
				±6	1030-1100	±7	±6	1030-1100	±7	±6	950-1100	±7
Damage Threshold W/cm²	10		50	10		10 [a]	10		30	10		50
Max Pulse Energy µJ	3		30	3		200	30		400	1		100
Noise Level for filter out pW	20			20			200			±2		
Response Time with Meter s	0.2			0.2			0.2			0.2		
Beam Position Dependence	±2%			±2%			±2%		±3%	±2%		
Background Subtraction	95-98% of background is cancelled automatically under normal room conditions, even when changing continuously						N.A.			N.A.		
Fiber Adapters Available (see page 32)	ST, FC, SMA, SC			ST, FC, SMA, SC			ST, FC, SMA, SC			N.A.		
Compliance	CE, China RoHS			CE, China RoHS			CE, China RoHS			CE, China RoHS		
Version							V1					
Part Number	**7Z02410**			**7Z02411A**			**7Z02426**			**7Z02424**		

Note: (a) Maximum power density above which sensor may not read correctly. There will be no permanent damage until 50W/cm²

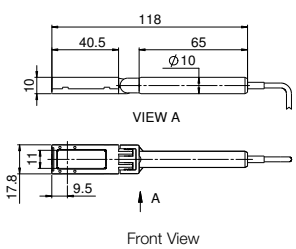
* For graphs see page 30-31
* For PD300-3W drawing see PD300-UV/PD300-IR drawing on page 26

PD300 / PD300-1W filter installed



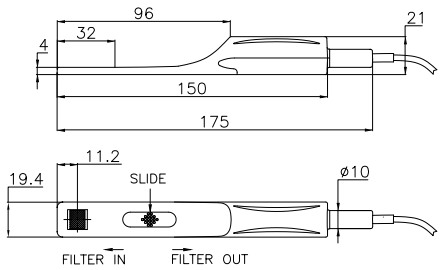
Front View

PD300 / PD300-1W filter off



Front View

PD300-TP



10pW to 300mW

Features

- Spectral range including UV and IR
- Very large dynamic range
- Swivel mount for hard to measure places
- Comes with filter in / filter out options
- Fiber optic adapters available

PD300-UV / PD300-IR with filter off

PD300-UV / PD300-IR with filter installed

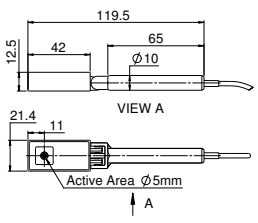
PD300-IRG with fiber input

Model	PD300-UV/ PD300-UV-193				PD300-IR				PD300-IRG			
Use	Lowest powers from 200-1100nm				Low powers from 700-1800nm				Telecom wavelength fiber and free space measurements			
Detector Type	silicon				Germanium				InGaAs			
Aperture	10x10mm				Ø5mm				Ø5mm for free space beams			
Filter Mode	Filter out		Filter in		Filter out		Filter in		Filter out		Filter in	
Spectral Range nm	200 -1100		220 -1100		700-1800		700-1800		800 - 1700		950 - 1700	
Power Range	20pW to 3mW		2µW to 300mW		5nW to 30mW		200µW to 300mW		10pW to 800µW		150µW to 200mW	
Power Scales	3mW to 3nW and dBm		300mW to 300µW and dBm		30mW to 30nW and dBm		300mW to 300µW and dBm		800 µW to 800pW and dBm		300mW to 300µW and dBm	
Resolution nW	0.001		100		0.01		NA		0.0001		1	
Maximum Power vs. Wavelength	nm	mW	mW		nm	mW	mW		nm	mW	mW	
	250 - 350	3	300		800	12	120		<1000	0.8	200	
	400	3	300		1000-1300	30	300		1100	0.8	200	
	600	3	300		1400	30	250		1200	0.8	200	
	800 - 950	2.5	150		1500	30	100		1300	0.8	200	
	1064	3	300		1600	30	100		1550	0.8	200	
					1800	30	300		>1600	0.8	200	
Accuracy (including errors due to temp. variations)												
% error vs Wavelength nm [a]	±10	200-230	±10	220-300	±5	700-800	±6	700-900	±3	1000-1650	±6	1000-1650
	±7	230-300	±4	300-420	±4	800-1700	±5	900-1700	±5	<1000 & >1650	±8	<1000 & >1650
	±3	300-420	±3	420-980	±7	1700-1800	±9	1700-1800				
	±2	420-980	±7	980-1100								
	±7	980-1100										
Damage Threshold W/cm2	10		50		10		50		5		50	
Max Pulse Energy µJ	1		50		0.75		2		1		100	
Noise Level for filter out pW	±1				200				±300fW at 1550 nm and 1s average			
Response Time with Meter s	0.2				0.2				0.2			
Beam Position Dependence	±2%				±2%				±1% over 80% of aperture			
Fiber Adapters Available (see page 32)	ST, FC, SMA, SC				ST, FC, SMA, SC				FC, FC/APC, SMA			
Compliance	CE, China RoHS				CE, China RoHS				CE, China RoHS			
Version									V1			
Part Number	**PD300-UV:**		**7Z02413**		**7Z02412**				**7Z02402**			
	PD300-UV-193:		**7Z02413A** [a]									

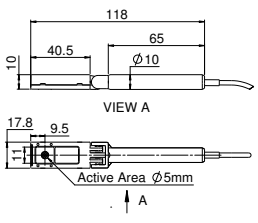
Note: (a) same as above with additional calibration point at 193nm accuracy ±6%

* For graphs see page 30-31

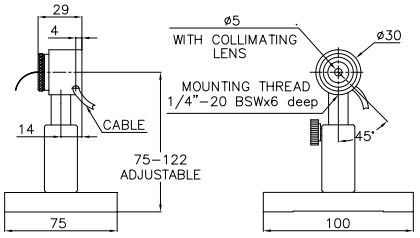
PD300-UV / PD300-IR filter installed
(Ø5mm for PD300-IR only)



PD300-UV / PD300-IR filter off
(Ø5mm for PD300-IR only)

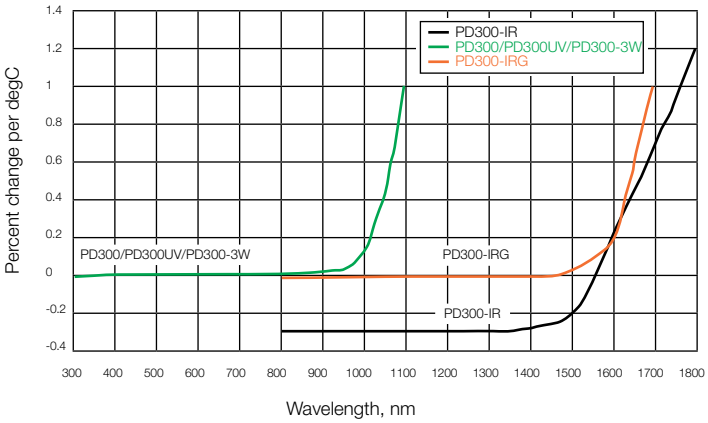


PD300-IRG

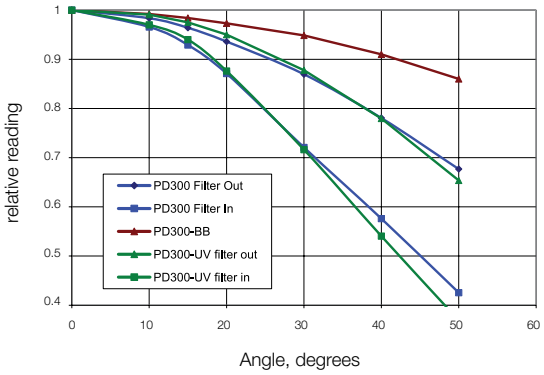


with fiber input

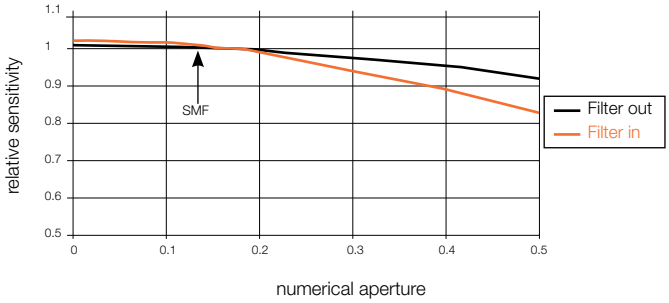
Temperature Coefficient of Sensitivity



PD300 Angle Dependence

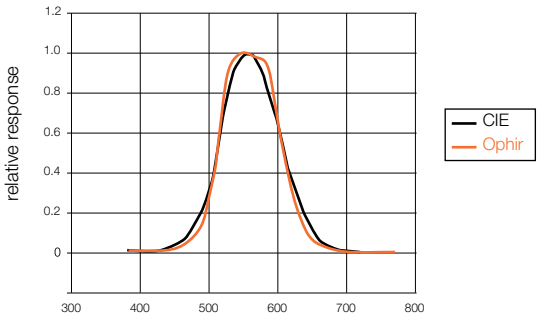


Dependence of Sensitivity on Numerical Aperture (PD300 - IRG)

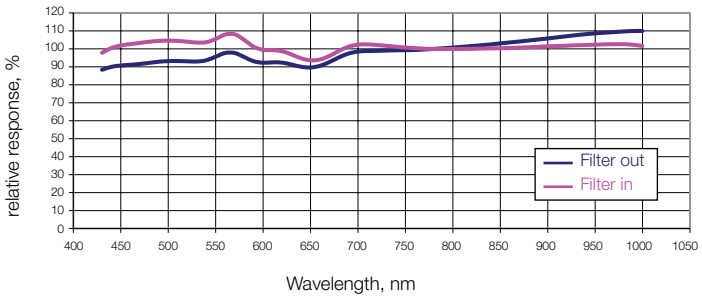


Note:
1. Graph assumes equal intensity into all angles up to maximum N.A.
2. Calibration is done with SMF, N.A. 0.13

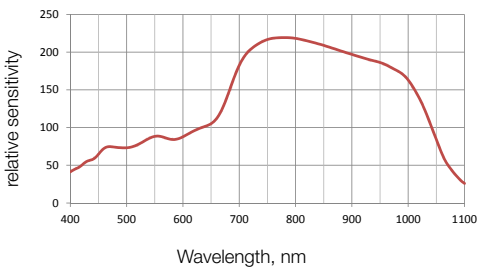
PD300-CIE Spectral Response vs. CIE Curve



Typical Sensitivity Curve of PD300-BB Sensors



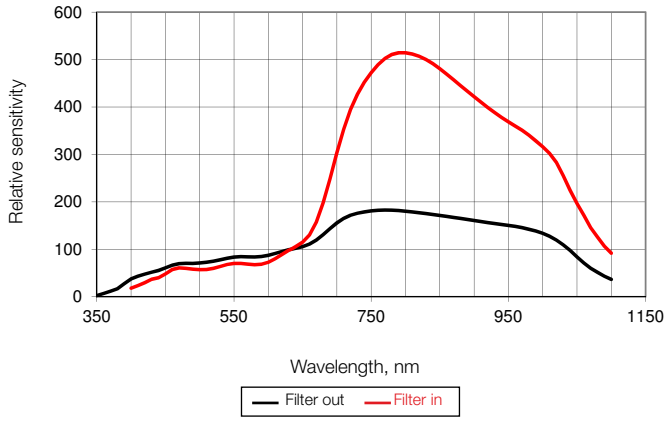
BC20 Relative Spectral Response



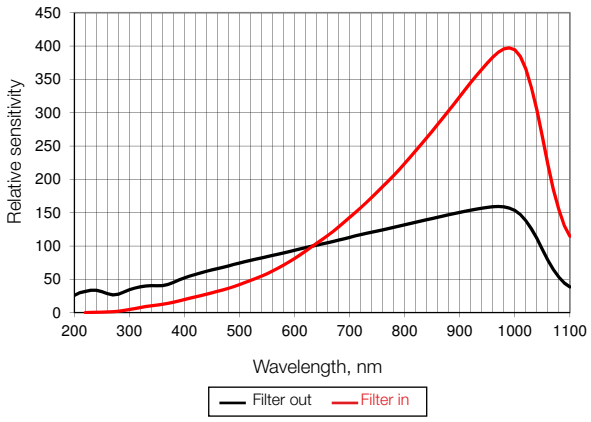
Approximate Spectral Response

Relative to 633nm or 1550nm

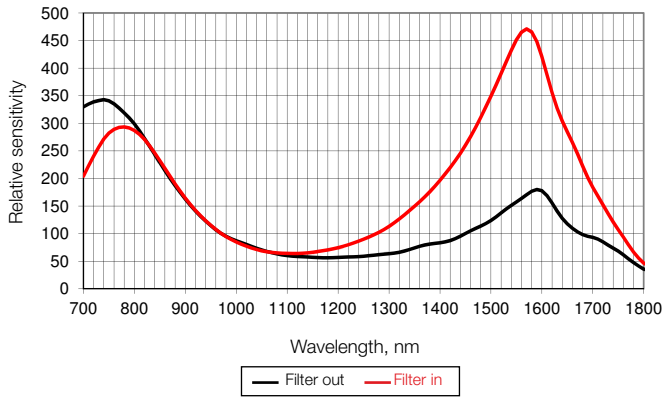
PD300 / PD300R



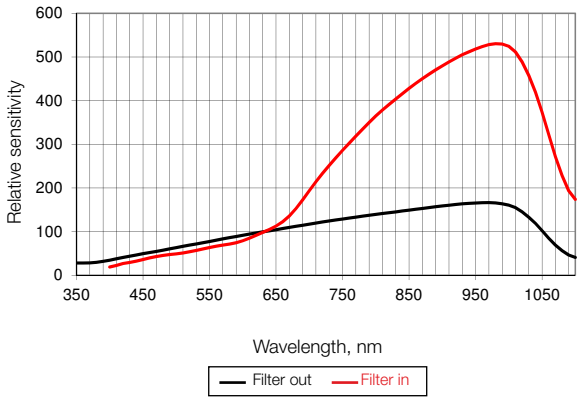
PD300-UV / PD300R-UV



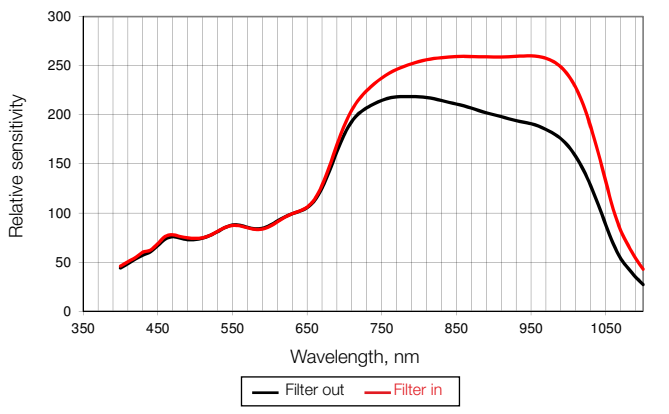
PD300-IR / PD300R-IR



PD300-TP



PD300-3W / PD300R-3W



PD300-IRG