

1.1.1.1 Standard Photodiode Sensors

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



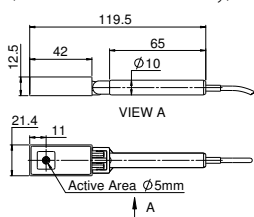
PD300-IRG with fiber input



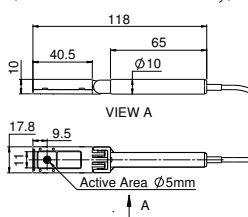
Model	PD300-UV/ PD300-UV-193			PD300-IR			PD300-IRG			
Use	Lowest powers from 200-1100nm			Low powers from 700-1800nm			Telecom wavelength fiber and free space measurements			
Detector Type	silicon			germanium			InGaAs			
Aperture	10x10mm			Ø5mm			Ø5mm for free space beams			
Filter mode	Filter out	Filter 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 30mW and dBm		800 µW to 800pW and dBm	300mW to 3mW 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	25	80	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	±6	200-270	±10	220-400	±5	700-900	±7	700-900	±3	1000-1650
	±3	270-950	±5	400-950	±4	900-1700	±6	900-1700	±5	<1000 & >1650
	±5	950-1100	±7	950-1100	±7	1700-1800	±9	1700-1800	±8	<1000 & >1650
Damage Threshold W/cm ²	10	50		10	50		5	50		
Max Pulse Energy µJ	0.4	15		0.3	3		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 37)	ST, FC, SMA, SC			ST, FC, SMA, SC			FC, FC/APC, SMA			
Version							V1			
Part Number	PD300-UV: 7Z02413		7Z02413A		7Z02412		7Z02402			
	PD300-UV-193: 7Z02413A			(same as above with additionally calibration point at 193nm accuracy ±6%)						

* For graphs see page 28-29

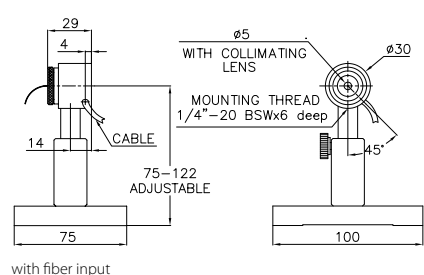
PD300-UV / PD300-IR filter installed (Ø5mm for PD300-IR only)



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

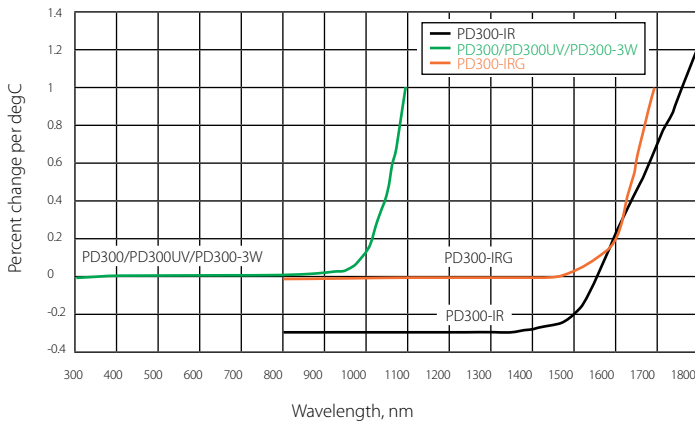


PD300-IRG

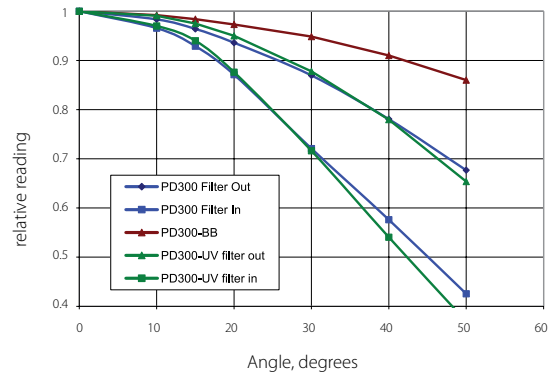


1.1.1.4 Graphs

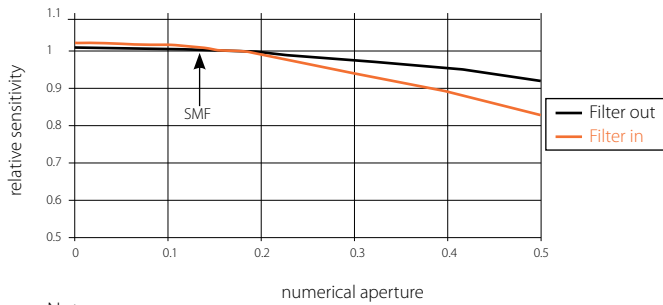
Temperature Coefficient of Sensitivity



PD300 Angle Dependence



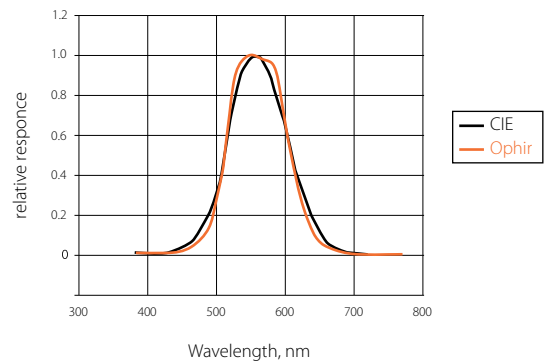
Dependence of Sensitivity on Numerical Aperture (PD300 - IRG)



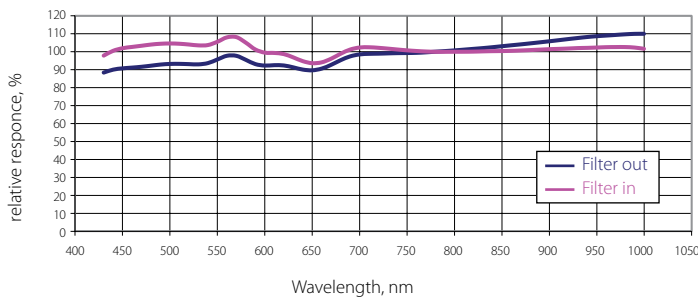
Note:

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

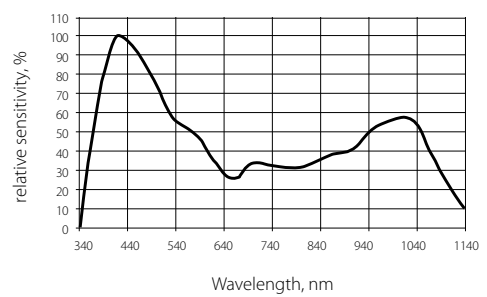
PD300-CIE Spectral Response vs. CIE Curve



Typical Sensitivity Curve of PD300-BB Sensors

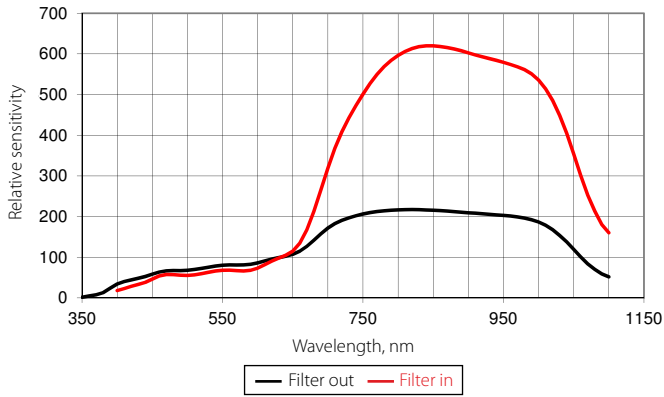


Relative Spectral Response of BC20

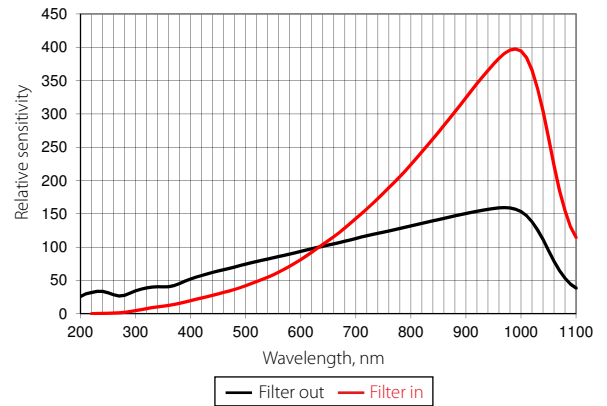


Approximate Spectral Response Relative to 633nm or 1550nm

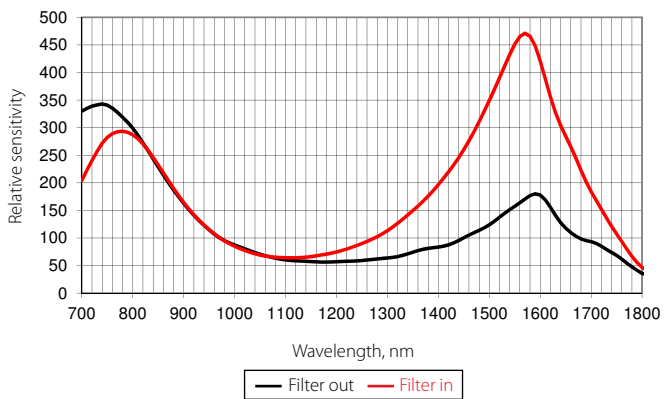
PD300 / PD300R



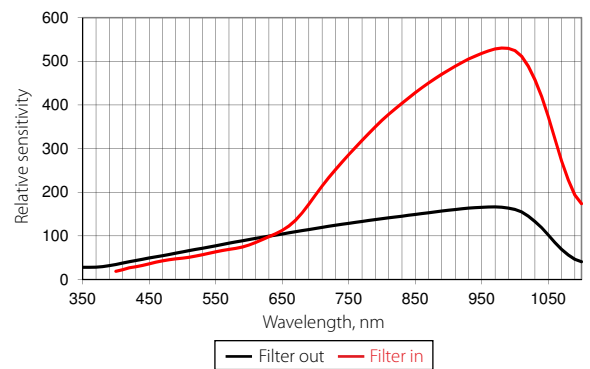
PD300-UV / PD300R-UV



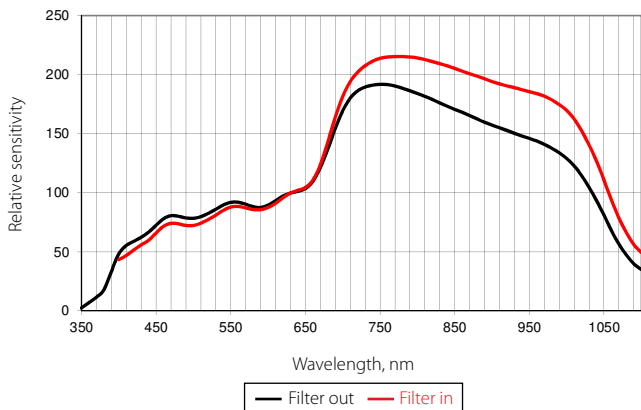
PD300-IR / PD300R-IR



PD300-TP



PD300-3W / PD300R-3W



PD300-IRG

