

1.1.1.2 Round Photodiode Sensors

20pW to 3W

Features

- Round geometry for easy centering
- Threaded to fit standard SM1 bench equipment
- Same performance as standard PD300 sensors
- Comes with removable filter as standard
- Fiber optic adapters available

PD300R Filter Off



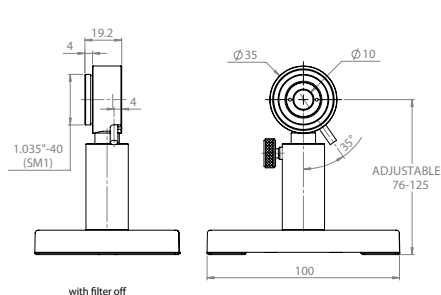
PD300R Filter installed



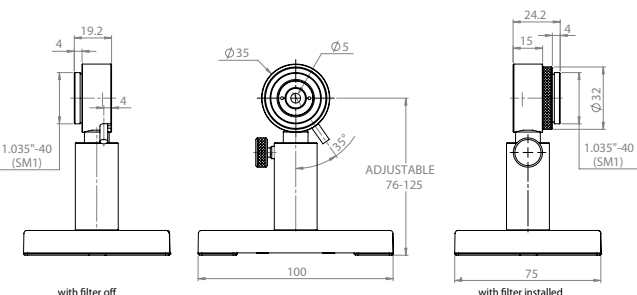
Model Use	PD300R General		PD300R-3W Powers to 3W		PD300R-UV Lowest powers from 200-1100nm		PD300R-IR IR wavelengths 700-1800nm	
Detector Type	silicon		silicon		silicon		Germanium	
Aperture	Ø10mm		Ø10mm		Ø10mm		Ø5mm	
Filter Mode	Filter out	Filter in	Filter out	Filter in	Filter out	Filter in	Filter out	Filter in
Spectral Range nm	350-1100	430-1100	350-1100	430-1100	200 -1100	220 -1100	700-1800	700-1800
Power Range	500pW to 30mW	200µW to 300mW	5nW to 100mW	200µW to 3W	20pW to 3mW	2µW to 300mW	5nW to 30mW	200µW to 300mW
Power Scales	30mW to 30nW and dBm	300mW to 300µW and dBm	100mW to 300nW and dBm	3W to 300µW and dBm	3mW to 3nW and dBm	300mW to 300µW and dBm	30mW to 30nW and dBm	300mW to 300µW and dBm
Resolution nW	0.01	NA	0.1	NA	0.001	100	0.01	NA
Maximum Power vs. Wavelength	nm	mW	nm	mW	nm	mW	nm	mW
	<488	30	<488	100	250 - 350	3	800	12
	633	20	633	100	400	3	1000-1300	30
	670	13	670	100	600	3	1400	30
	790	10	790	100	800 - 950	2.5	1500	30
	904	10	904	100	1064	3	1600	30
	1064	25	1064	100			1800	30
Accuracy (including errors due to temp. variations)								
% error vs Wavelength nm	±10	360-400	±10	360-400	±10	200-230	±5	700-800
	±3	400-980	±3	400-950	±7	230-300	±4	800-1700
	±5	980-1100	±4	950-1030	±3	300-420	±3	800-1700
			±6	1030-1100	±2	420-980	±7	1700-1800
					±7	980-1100		
Damage Threshold W/cm2	10	50	10	30	10	50	10	50
Max Pulse Energy µJ	3	30	30	400	1	50	0.75	2
Noise Level for filter out pW	20		200		±1		200	
Response Time with Meter s	0.2		0.2		0.2		0.2	
Beam Position Dependence	±2%		±2%	±3%	±2%		±2%	
Fiber Adapters Available (see page 32)	ST, FC, SMA, SC		ST, FC, SMA, SC		ST, FC, SMA, SC		ST, FC, SMA, SC	
Compliance Version	CE, China RoHS		CE, China RoHS		CE, China RoHS		CE, China RoHS	
Part Number	7Z02436		7Z02437		7Z02438		7Z02439	

* For graphs see page 30-31

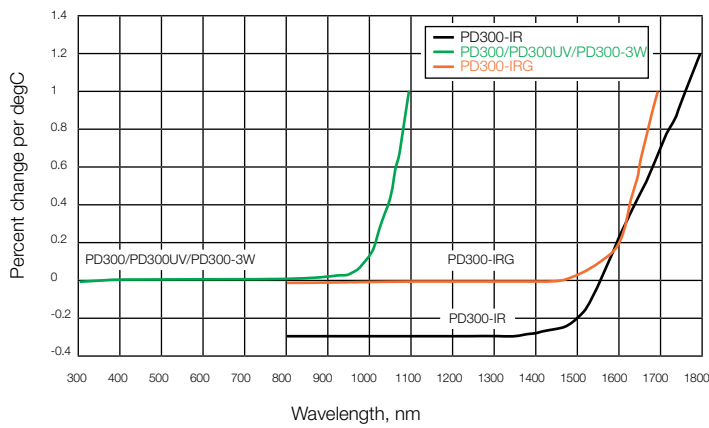
PD300R / PD300R-3W / PD300R-UV



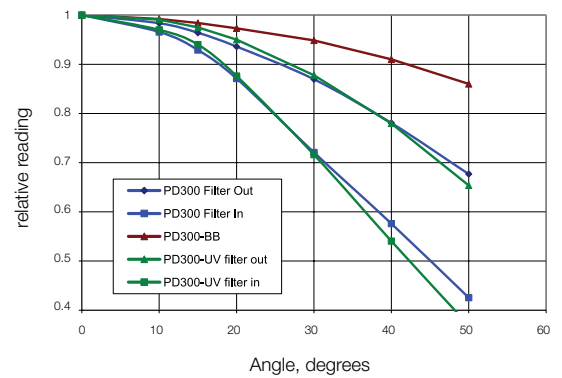
PD300R-IR



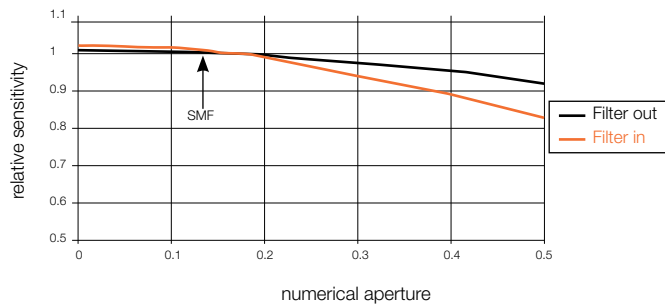
Temperature Coefficient of Sensitivity



PD300 Angle Dependence



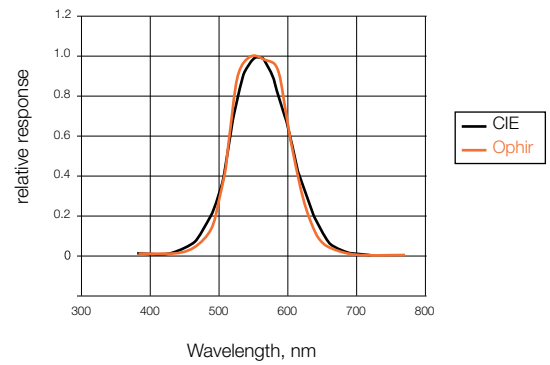
Dependence of Sensitivity on Numerical Aperture (PD300 - IRG)



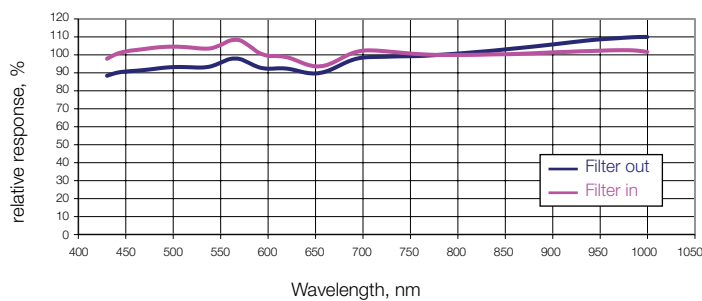
Note:

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

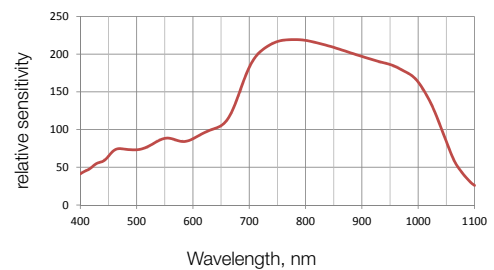
PD300-CIE Spectral Response vs. CIE Curve



Typical Sensitivity Curve of PD300-BB Sensors



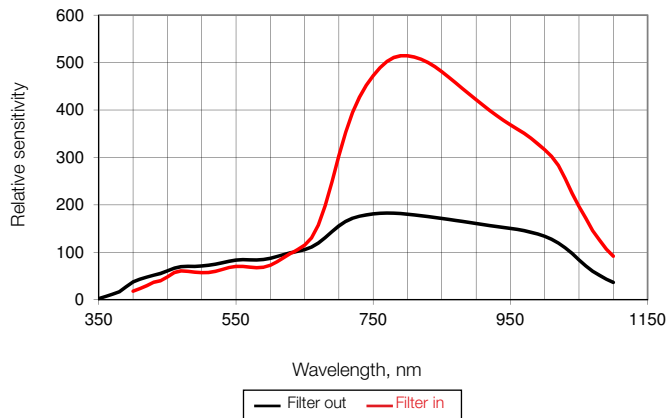
BC20 Relative Spectral Response



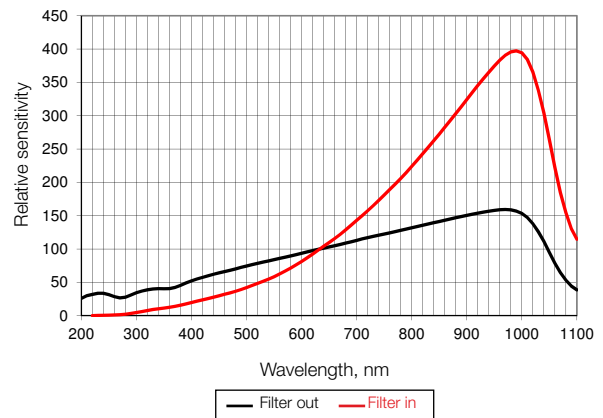
Approximate Spectral Response

Relative to 633nm or 1550nm

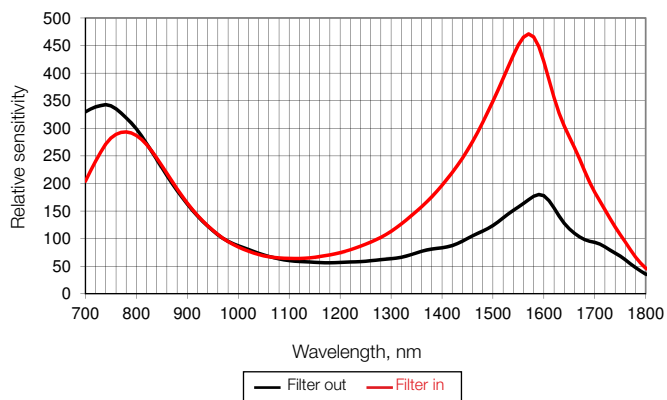
PD300 / PD300R



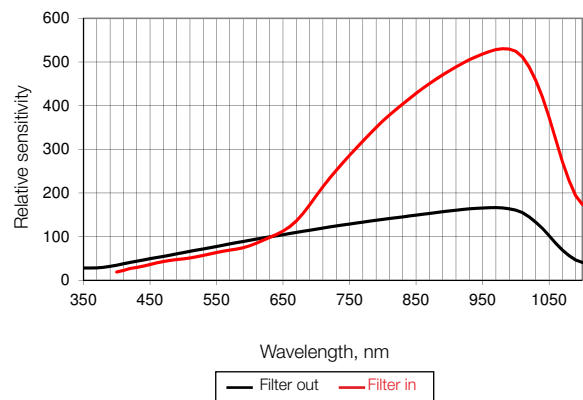
PD300-UV / PD300R-UV



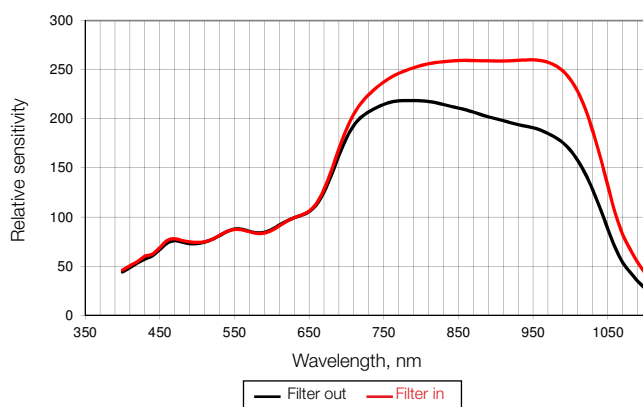
PD300-IR / PD300R-IR



PD300-TP



PD300-3W / PD300R-3W



PD300-IRG

