

1.1.1.2 Round Photodiode Sensors

20pW to 300mW

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-UV Filter Off PD300R-UV Filter installed PD300R-UV-193

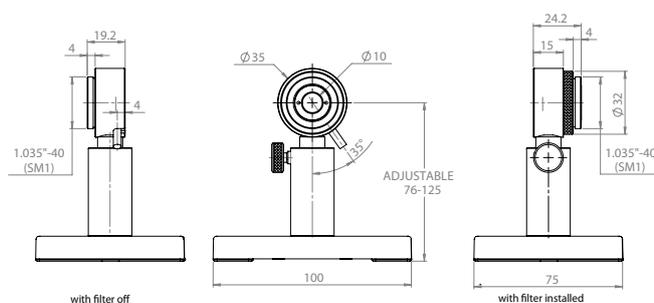


Model	PD300R-UV		PD300R-UV-193	
Use	Lowest powers from 200-1100nm		Lowest powers from 190-400nm	
Detector Type	silicon		silicon	
Aperture	Ø10mm		Ø10mm	
Filter Mode				
Calibration Uncertainty ±%	1.1 430-1000nm ^(a)		190-400nm ^(a)	
Filter Mode	Filter out	Filter in	Filter out	Filter in
Spectral Range nm	200-1100	220-1100	190-400	190-400
Power Range	20pW to 3mW	2µW to 300mW	4nW to 20mW	30µW to 300mW
Power Scales	3mW to 3nW and dBm	300mW to 300µW and dBm	20mW to 20nW	300µW to 300mW
Resolution nW	0.001	100	0.01	100
Maximum Power vs. Wavelength	nm	mW	nm	mW
	250 - 350	3	300	300
	400	3	300	300
Accuracy ^(b) (including errors due to temp. variations)				
% error vs Wavelength nm	±10	200-230	±10	220-300
	±7	230-300	±4	300-420
	±3	300-420	±3	420-980
	±2	420-980	±7	980-1100
	±7	980-1100		
Damage Threshold W/cm ² at 400nm	NA		10	50
Max Pulse Energy µJ	1	50	1	50
Noise Level for filter out pW	1		200	
Response Time with Meter s	0.2		0.2	
Beam Position Dependence	±2%		NA	
Fiber Adapters Available (see page 35)	ST, FC, SMA, SC		NA	
Compliance	CE, UKCA, China RoHS		CE, UKCA, China RoHS	
Version				
Part Number: Standard Sensor	7Z02438 (1.5m cable)		7Z07151	
Sensor with different cable length	7Z02438C (10m cable)			

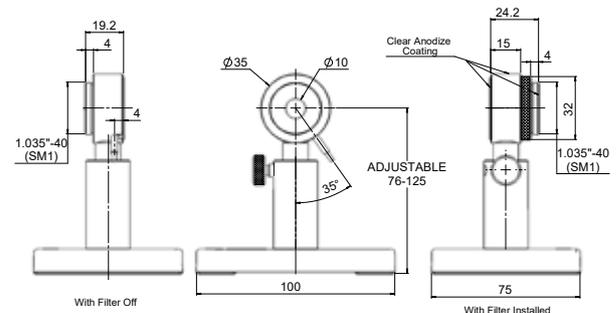
Note: (a) For calibration uncertainty of wavelengths outside of this range see table on page 25
 Note: (b) UV degradation at 193 nm: <1% change for dosage of 1 kJ/cm² with energy density of 0.1 mJ/cm²

* For graphs see page 33-34

PD300R-UV

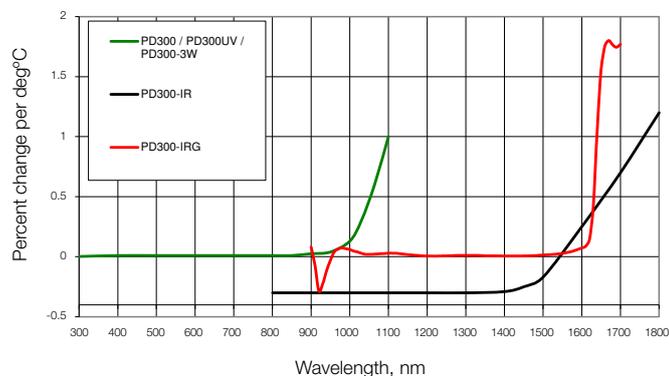


PD300-UV-193

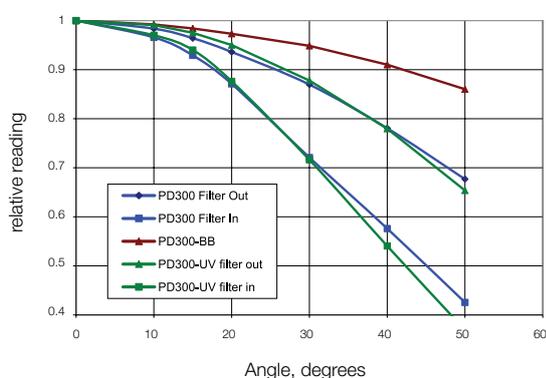


1.1.1.4 Graphs

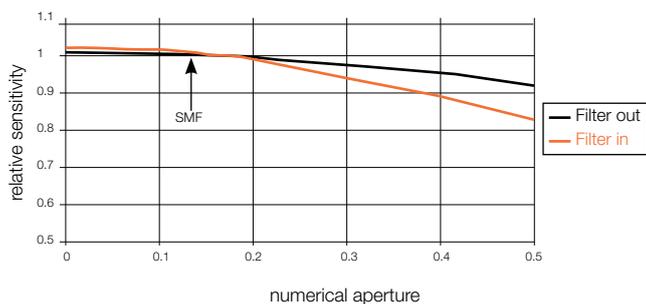
Temperature Coefficient of Sensitivity



PD300 Angle Dependence



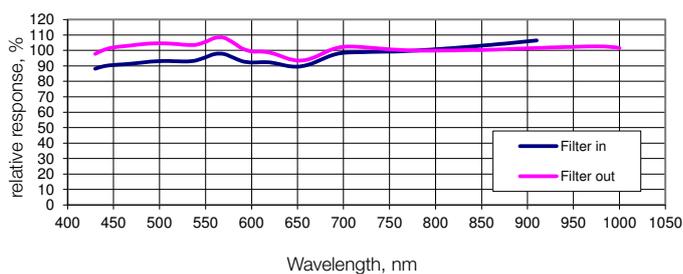
Dependence of Sensitivity on Numerical Aperture (PD300 - IRG)



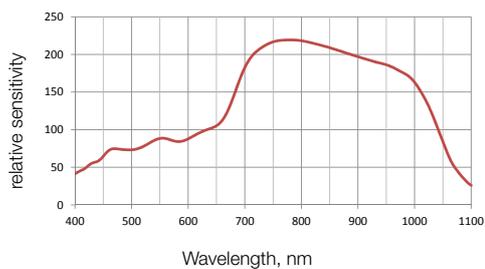
Note:

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

Typical Sensitivity Curve of PD300-BB Sensors



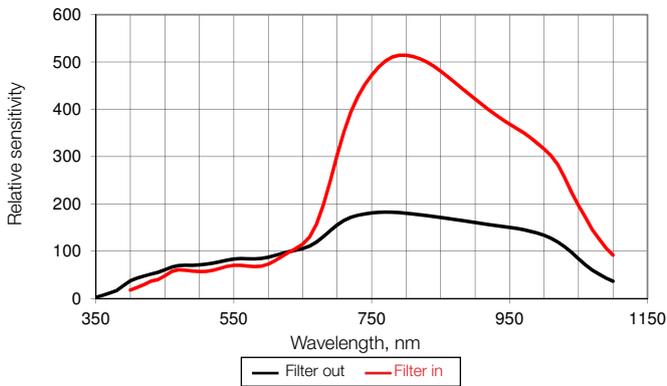
BC20 Relative Spectral Response



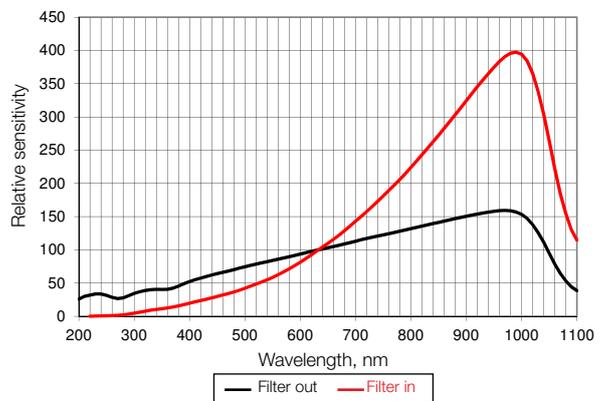
Approximate Spectral Response

Relative to 633nm or 1550nm

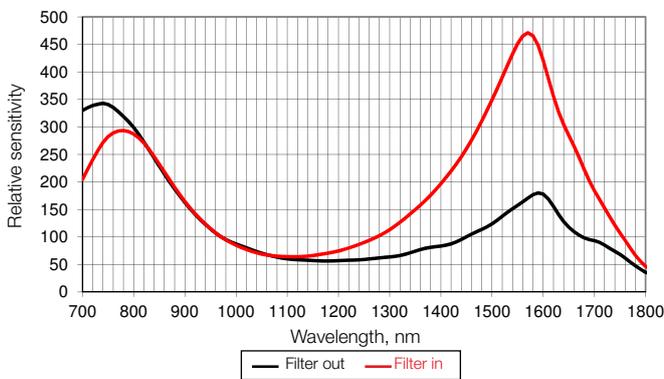
PD300 / PD300R



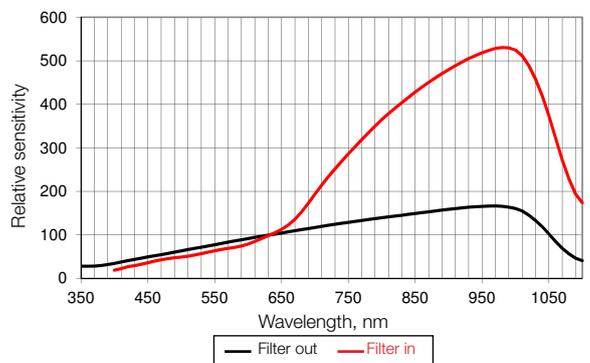
PD300-UV / PD300R-UV



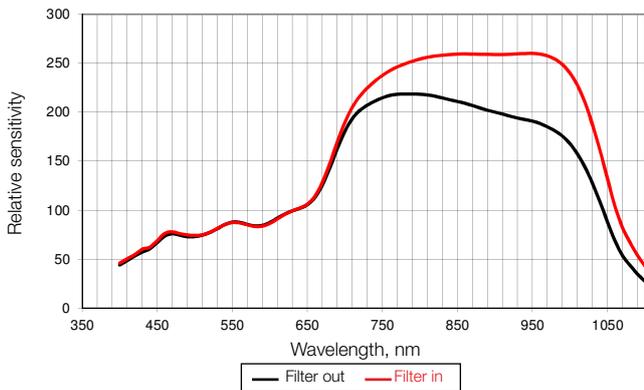
PD300-IR / PD300R-IR



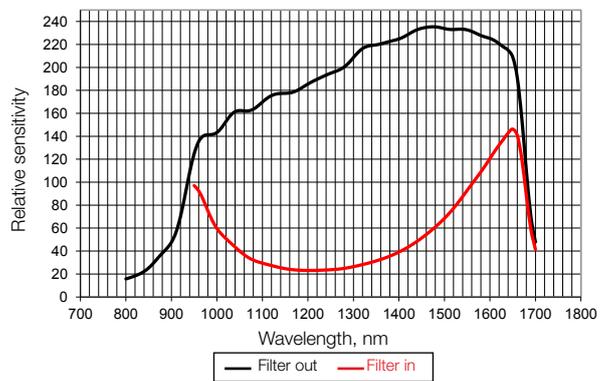
PD300-TP



PD300-3W / PD300R-3W



PD300-IRG



PD300-1W

