

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



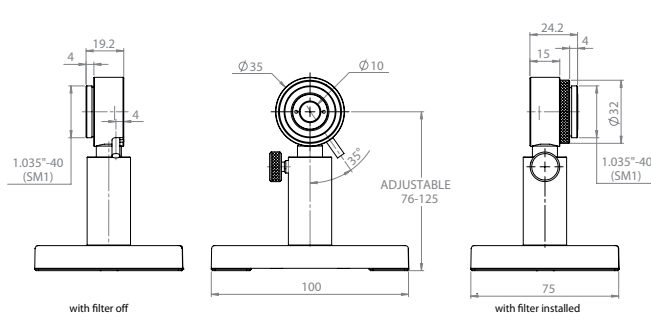
Model	PD300R-UV			PD300R-UV-193		
Use	Lowest powers from 200-1100nm			Lowest powers from 190-400nm		
Detector Type	silicon			silicon		
Aperture	Ø10mm			Ø10mm		
Filter Mode						
Calibration Uncertainty ±%	1.1 430-1000nm ^(a)			190-400nm ^(a)		
Filter Mode	Filter out		Filter in	Filter out		Filter in
Spectral 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	mW	nm	mW	mW
	250 - 350	3	300	190-350	20	300
	400	3	300	351-400	8	300
Accuracy ^(b) (including errors due to temp. variations)						
% error vs Wavelength nm	±10 200-230		±10 220-300	±7 190-230		±10 190-230
	±7 230-300		±4 300-420	±5 231-300		±6 231-300
	±3 300-420		±3 420-980	±3 301-400		±4 301-400
Damage Threshold W/cm² at 400nm	NA		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 33)	ST, FC, SMA, SC			ST, FC, SMA, SC		
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 24

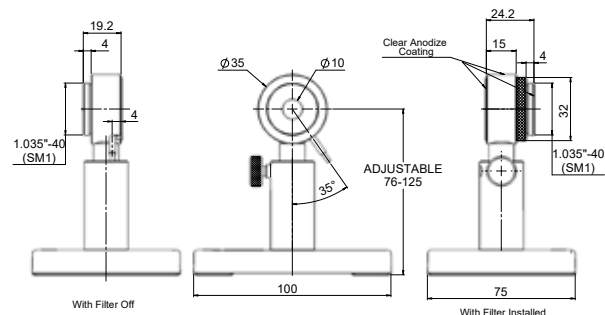
Note: (b) UV degradation at 193 nm: <1% change for dosage of 1 kJ/cm² with energy density of 0.1 mJ/cm²

* For graphs see page 31-32

PD300R-UV

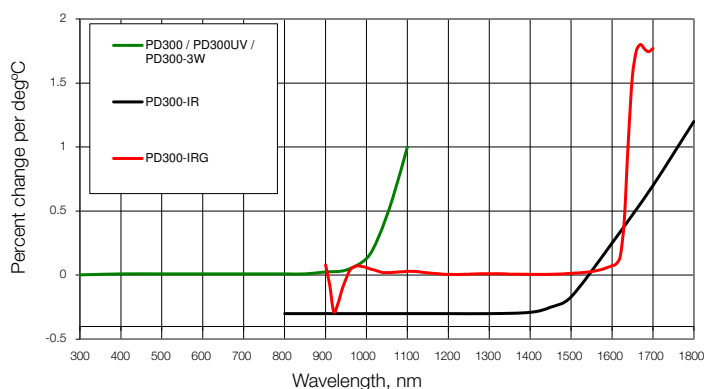


PD300-UV-193

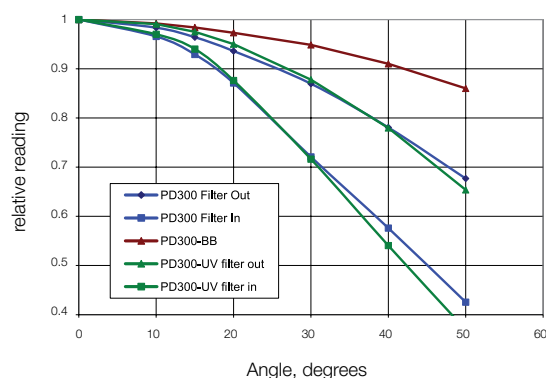


1.1.1.4 Graphs

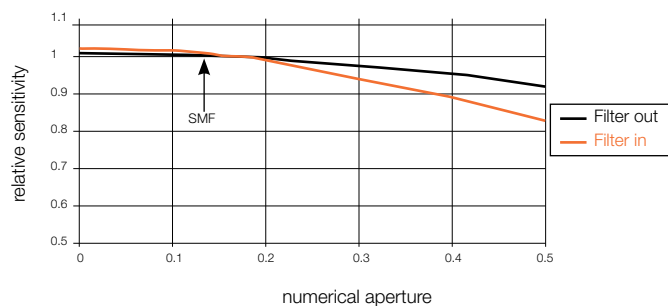
Temperature Coefficient of Sensitivity



PD300 Angle Dependence



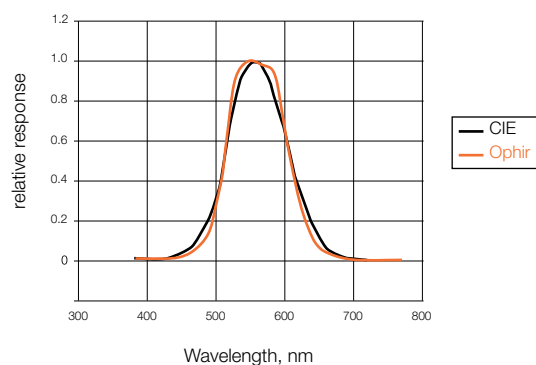
Dependence of Sensitivity on Numerical Aperture (PD300 - IRG)



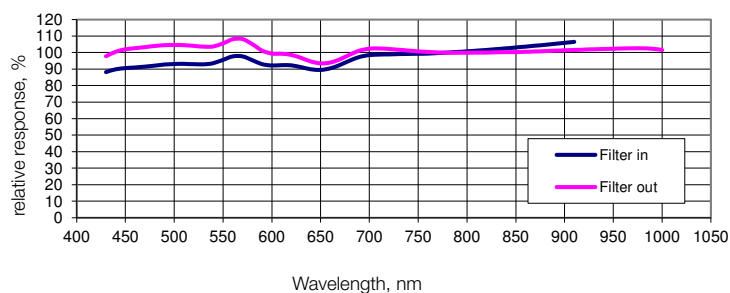
Note:

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

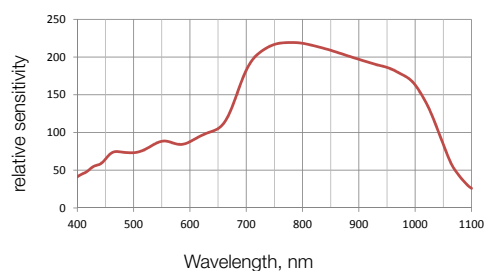
PD300-CIE Spectral Response vs. CIE Curve



Typical Sensitivity Curve of PD300-BB Sensors



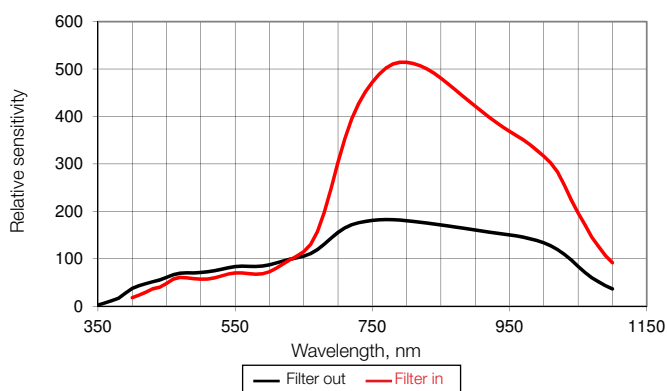
BC20 Relative Spectral Response



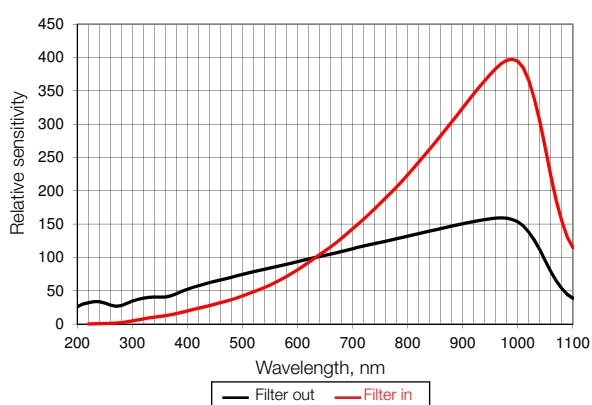
Approximate Spectral Response

Relative to 633nm or 1550nm

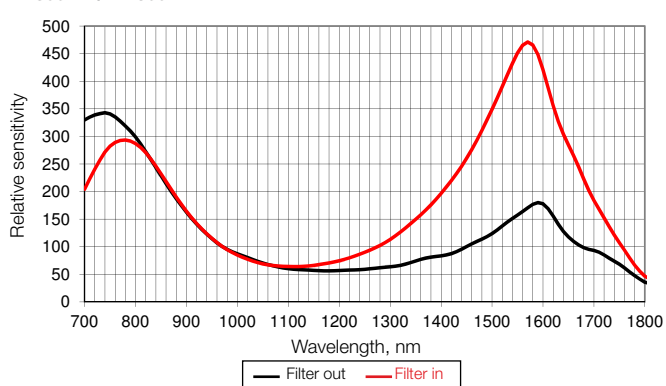
PD300 / PD300R



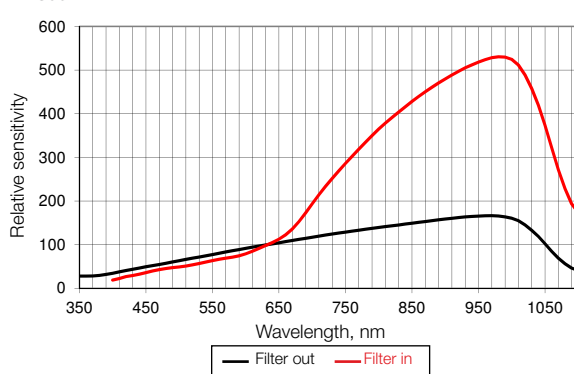
PD300-UV / PD300R-UV



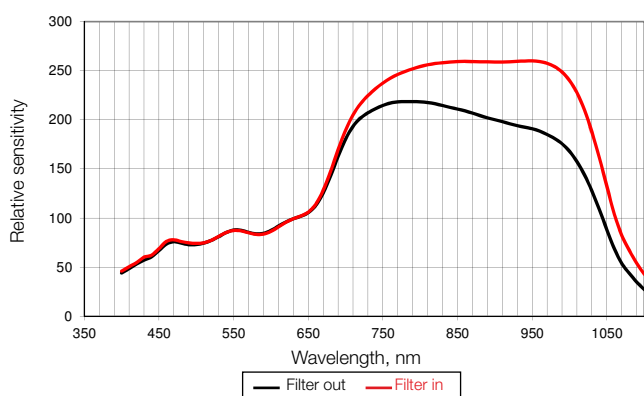
PD300-IR / PD300R-IR



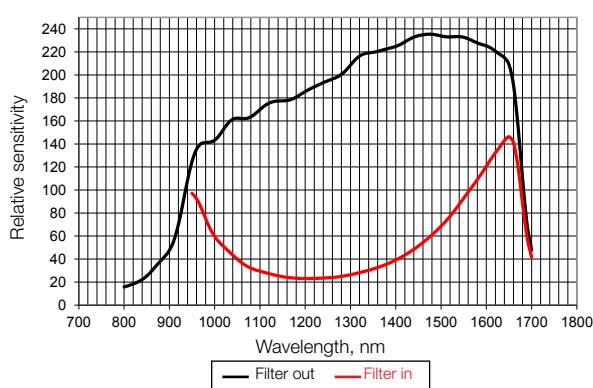
PD300-TP



PD300-3W / PD300R-3W



PD300-IRG



PD300-1W

