

320-1000nm Silicon-based Amplified Photodetector, Photodetector Size $\Phi 0.8\text{mm}$



● Product Description

The Silicon-based Amplified Photodetector from IdealPhotonics covers a wavelength range of 200nm to 1100nm, featuring fixed gain for quantitative photoconversion. It provides sufficient gain while ensuring high bandwidth performance, making it suitable for the development of photodetection applications involving weak light intensity and fast speeds. It delivers excellent performance and high cost-efficiency, along with Quan-level technical support. Commonly used in ultraviolet (UV) and visible light measurement.

● Part Number

PDSAF3C8

● Product features

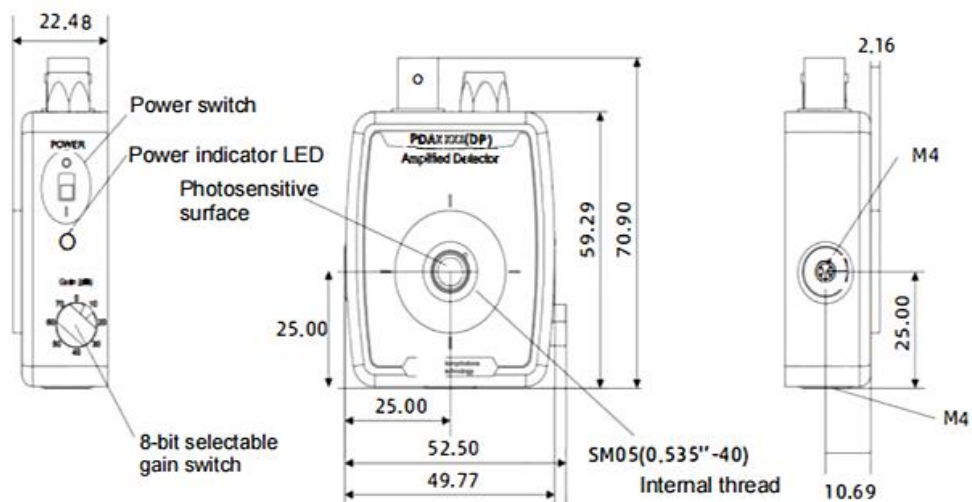
Wavelength range: 200nm to 1100nm, commonly used in ultraviolet and visible light measurements、 Amplified detector with fixed gain for quantitative photoconversion 、 Ensures high bandwidth and sufficient gain, ideal for photodetection with weak light intensity and fast speeds 、 Excellent performance with high cost-effectiveness and full technical support 、 Customization services available

● Application area

Ultraviolet (UV) and visible light measurement

Dimensional Drawing

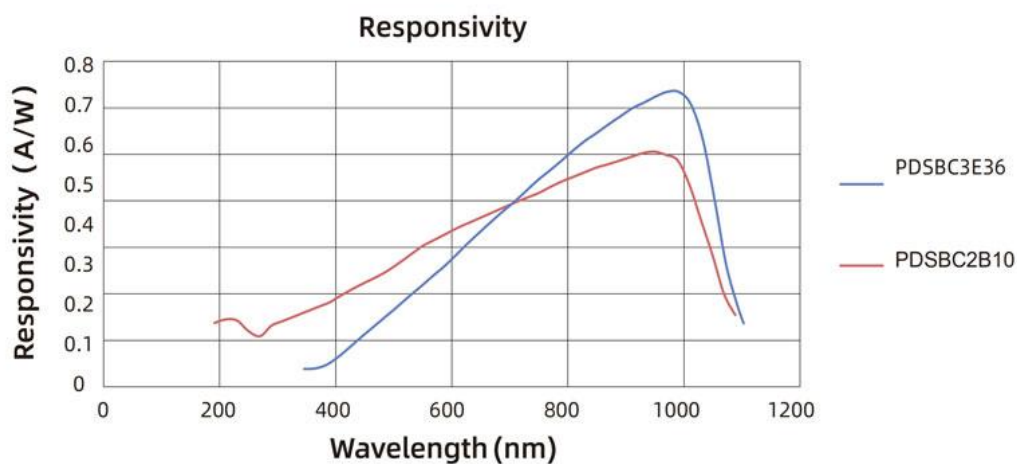
Dimension



Main Parameters

Parameter s	Value				
Wavelength h Range	200-1100nm	400-1000nm	320-1100nm	320-1000nm	
Active area	Φ 1.0mm	Φ 150um	1.1mm×1.1mm	Φ 0.8mm	
Bandwidth Range	DC ~ 150MHz	DC~380MHz	DC~20MHz	DC~50MHz	
Gain Range	Hi-Z Load: 1 × 10 ⁴ V/A; 50 Ω Load: 5 × 10 ³ V/A	Hi-Z Load: 5 × 10 ⁴ V/A; 50 Ω Load: 2.5 × 10 ⁴ V/A	1 × 10 ^{1 2} V/A ±10%	Hi-Z Load: 100kV/A; 50 Ω Load: 50kV/A	
Signal Amplitude	Hi-Z Load: 0 ~ 10V; 50 Ω Load: 0~5V	Hi-Z Load: 0 ~ 10V; 50 Ω Load: 0~5V	0 ~10V	Hi-Z Load: 0~ 3.6V; 50 Ω Load: 0~1.8V	
NEP	2.92 × 10-11W/Hz1/2	3.6 × 10-11W/H z1/2	3.0 × 10-15W/H z1/2	7.8 × 10-12W/Hz 1/2	
Photodete ctor Depth	0.09" (2.2 mm)	0.20" (5.0 mm)	0.10" (2.4 mm)	0.07" (1.8 mm)	
Operating Temperatu re	10-50℃	10-40℃	10-50℃		
Storage Temperatu re	-25-70℃				
Detector Net Weight	0.10kg			0.06kg	
Dimension s	2.79" X 1.96" X 0.89" (70.9 mm X 49.8 mm X 22.5 mm)		2.79" X 1.96" X 0.89" (70.9 mm X 49.9 mm X 22.5 mm)		
Power Supply Interface	Power Supply	Power Switch	Signal Interface	Support Rod Interface	Optical Interfac e
LUMBERG SMV3 FE MA LE	LDS12B(DP), ± 12 VD, C Linear Power Supply, 6W, 220VAC	Slide switch with LED indicator	BNC Female Socket	M4 X 2	SM1 X 1 SM0.5 X 1

SI Response Curve:



Attachment 1: Optional Configuration Table

Silicon-Based Amplifying Photodetector					
Optional Configuration					
Product Name	Material	Type	Features	Wavelength Range Photodetector Size	Reserved Optional Configuration
PD: "Photodetector"	S: Si Silicon-based	A: Amplifying Type	F: Fixed Gain	2B10: 200-1100nm , Φ 1.0mm	
				4F015: 400-1000nm , Φ 150um	
				3D11: 320-1100nm , 1.1mmX1.1mm	
				3C8: 320-1000nm , Φ 0.8mm	

Attachment 2: Model and Part Number Comparison Table

Model	Part Number	Specs
PDSAF2B10	A80153417	200-1100nm Silicon-based Amplifying Photodetector, Active area Φ 1.0mm, Fixed Gain 1×10^4 V/A, Bandwidth DC ~ 150MHz
PDSAF4F015	A80153418	400-1000nm Silicon-based Amplifying Photodetector, Active area Φ 150 μ m, Fixed Gain 5×10^4 V/A, Bandwidth DC ~ 380MHz
PDSAF3D11	A80153419	320-1100nm Silicon-based Amplifying Photodetector, Active area 1.1mm $\times$ 1.1mm, Fixed Gain 1×10^{12} V/A $\pm$ 10%, Bandwidth DC ~ 20MHz
PDSAF3C8	A80153420	320-1000nm Silicon-based Amplifying Photodetector, Active area Φ 0.8mm, Fixed Gain 100kV/A, Bandwidth DC ~ 50MHz