320-1000nm Silicon-based Amplified Photodetector, Active area Φ0.8mm

- ## 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.

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

Part Number

MP-PD-M-S-50-AF3C8

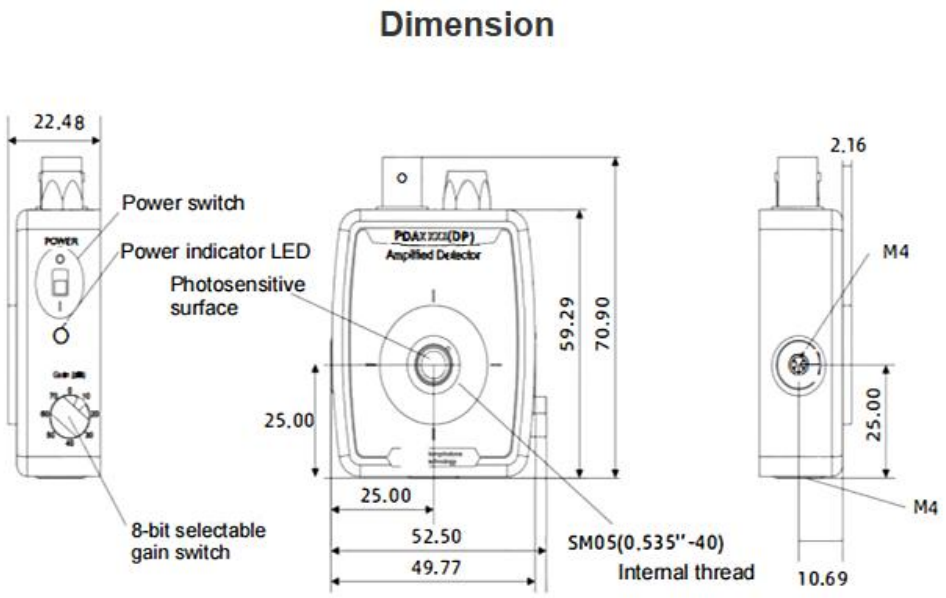
Application area

Ultraviolet (UV) and visible light measurement

Core parameters

Wavelength Range	Active Area	Bandwidth
320-1100nm	Φ0.8mm	50MHz

Dimension Drawing



General Parameters

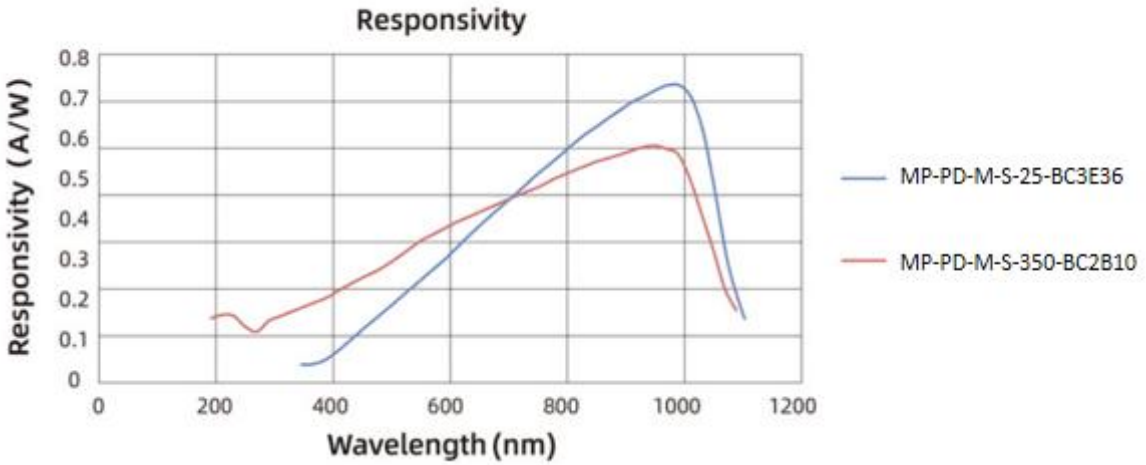
Main Parameters

Parameters				Value
Wavelength Range	200-1100nm	400-1000nm	320-1100nm	320-1000nm
Active area	Φ1.0mm	Φ150um	1.1mm×1.1mm	Φ0.8mm

Bandwidth Range	DC～150MHz	DC～380MHz	DC～20MHz	DC～50MHz
Gain Range	Hi-Z Load: 1 × 10^4 V/A; 50Ω Load: 5 × 10^3 V/A	Hi-Z Load: 5 × 10^4 V/A; 50Ω Load: 2.5 × 10^4 V/A	1 × 10^{12} V/A ±10%	Hi-Z Load: 100kV/A; 50Ω Load: 50kV/A
Signal Amplitude	Hi-Z Load: 0 ～10V; 50Ω Load: 0～5V	Hi-Z Load: 0 ～10V; 50Ω Load: 0～5V	0 ～10V	Hi-Z Load: 0～3.6V; 50Ω Load: 0~1.8V
NEP	2.92 × 10^{-11}W/$Hz^{1/2}$	3.6 × 10^{-11}W/$Hz^{1/2}$	3.0 × 10^{-15} W/H $z^{1/2}$	7.8 × 10^{-12}W/$Hz^{1/2}$
Photodetector Depth	0.09" (2.2 mm)	0.20" (5.0 mm)	0.10" (2.4 mm)	0.07" (1.8 mm)
Operating Temperature	10-50℃	10-40℃	10-50℃	

Storage Temperature	-25-70℃				
Detector Net Weight	0.10kg			0.06kg	
Dimensions	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 Interface
LUMBERGR SMV3 FEMA 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

Photodetector	Si Silicon-based	Amplifying Type	Fixed Gain	200-1100nm，Φ 1.0mm	
				400-1000nm，Φ150um	
				320-1100nm，1.1mmX1.1 mm	
				320-1000nm，Φ 0.8mm	

Attachment 2：Model Comparison Table

Model	Specs
MP-PD-M-S-150-AF2B10	200-1100nm Silicon-based Amplifying Photodetector, Active area Φ1.0mm, Fixed Gain 1 × 10^4V/A, Bandwidth DC ~ 150MHz

MP-PD-M-S-380-AF4F015	400-1000nm Silicon-based Amplifying Photodetector, Active area Φ150μm, Fixed Gain 5 × 10^4V/A, Bandwidth DC ~ 380MHz
MP-PD-M-S-20-AF3D11	320-1100nm Silicon-based Amplifying Photodetector, Active area 1.1mm × 1.1mm, Fixed Gain 1 × 10^{12}V/A ± 10%, Bandwidth DC ~ 20MHz
MP-PD-M-S-50-AF3C8	320-1000nm Silicon-based Amplifying Photodetector, Active area Φ0.8mm, Fixed Gain 100kV/A, Bandwidth DC ~ 50MHz