200-1100nm Silicon-Based Amplified Photodetector, Active area Φ1.0mm

- ## Product Description

IdealPhotonics' silicon-based amplified photodetector covers a wavelength range from 200nm to 1100nm, offering fixed gain for quantitative photoconversion. It provides sufficient gain while ensuring high bandwidth performance, making it ideal for photodetection applications with weak light intensity and fast speeds. The device is known for its excellent performance, high cost-performance ratio, and comprehensive technical support. It is commonly used in ultraviolet and visible light measurements.

Product features

Wavelength range: 200nm – 1100nm, commonly used for ultraviolet and visible light measurements、 Amplified detector with fixed gain for quantitative photoconversion、 Provides sufficient gain and high bandwidth, ideal for weak light and fast-speed applications、 Excellent performance and cost-effective, with full technical support、Customization options available

Part Number

MP-PD-M-S-150-AF2B10

Application area

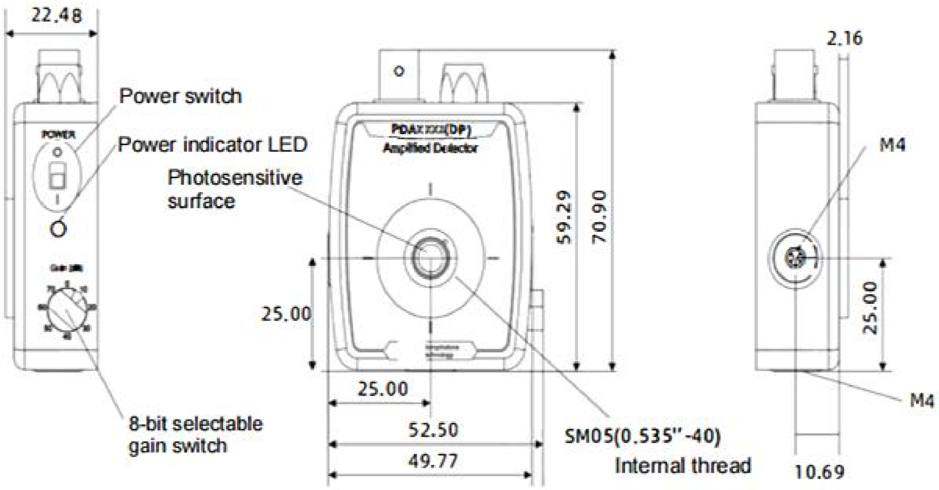
Ultraviolet and visible light measurements

Core parameters

Wavelength Range	Active Area	Bandwidth
200-1100nm	Φ1mm	150MHz

Dimension Drawing

Dimension



General Parameters

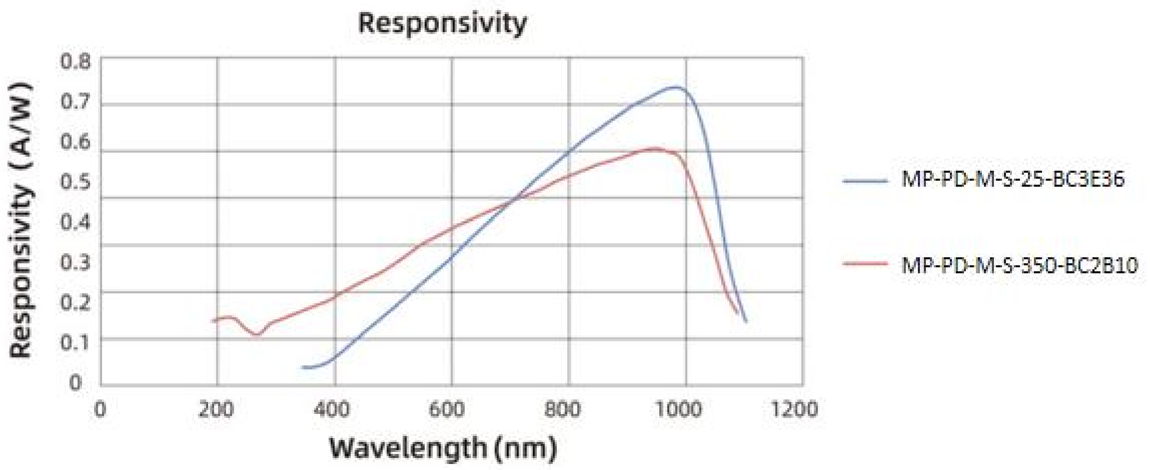
Main Parameters

Parameters	Value			
Wavelength Range	200-1100nm	400-1000nm	320-1100nm	320-1000nm
Active area	Φ1.0mm	Φ150um	1.1m×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/Hz$^{1/2}$	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°C	10-40°C	10-50°C	

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 mmX 22.5 mm)		
Power Supply Interface	**Power Supply**	**Power Switch**	**Signal Interface**	**Support Rod Interface**	**Optical Interface**
LUMBERG RSMV3 FEMALE	**LDS12B(DP), ±12VD, 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，1.1mmX1.1mm	
				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