

## 400-1000nm Silicon-based Amplified Photodetector, Active area $\Phi 150\mu\text{m}$



- **Product Description**

IdealPhotonics' silicon-based amplified photodetector covers the wavelength range of 200nm to 1100nm, with fixed gain for quantitative photoconversion. It ensures high bandwidth performance while providing sufficient gain, ideal for fast and weak-light photodetection applications. It offers excellent performance, high cost-effectiveness, and technical support. Commonly used in UV and visible light measurements.



- **Product features**

Wavelength range: 200nm-1100nm, commonly used for UV and visible light measurements 、 Amplified detector with fixed gain for quantitative photoconversion 、 High gain and bandwidth for fast, weak-light photodetection applications 、 Excellent performance and cost-effectiveness with technical support、 Customizable options available

- **Part Number**

MP-PD-M-S-380-AF4F015

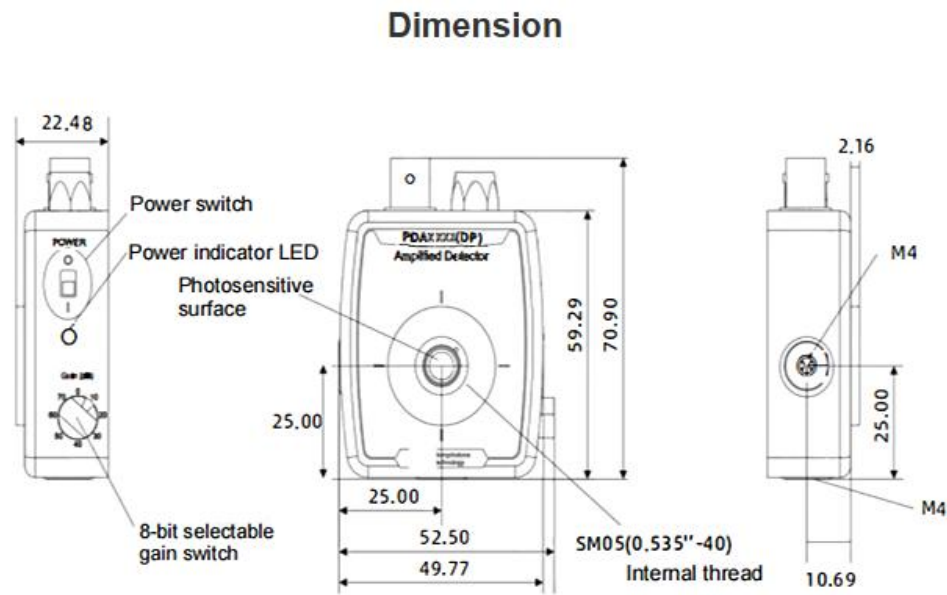
- **Application area**

UV and visible light measurement.

- **Core parameters**

Wavelength Range	Active Area	Bandwidth
400-1100nm	Φ150um	380MHz

## ● Dimension Drawing



## ● General Parameters

### Main Parameters

Param eters	Value			
Wavele ngth Range	200-1100nm	400-1000nm	320-1100nm	320-1000nm
Active area	Φ1.0mm	Φ150um	1.1m×1.1mm	Φ0.8mm
Bandwi dth	DC ~150MHz	DC~380MHz	DC~20MHz	DC~50MHz



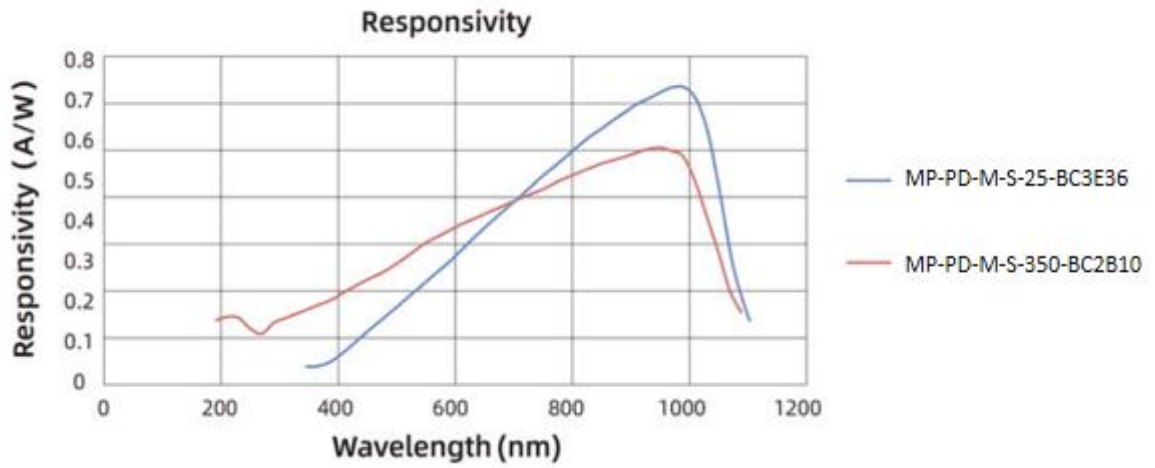
<b>Range</b>				
<b>Gain Range</b>	Hi-Z Load: $1 \times 10^4$ V/A; 50Ω Load: $5 \times 10^3$ V/A	Hi-Z Load: $5 \times 10^4$ V/A; 50Ω Load: $2.5 \times 10^4$ V/A	$1 \times 10^{12}$ V/A $\pm 10\%$	Hi-Z Load: 100kV/A; 50Ω Load: 50kV/A
<b>Signal Amplitude</b>	Hi-Z Load: 0 ~10V; 50Ω Load: 0~5V	Hi-Z Load: 0 ~ 10V; 50Ω Load: 0~5V	0 ~10V	Hi-Z Load: 0~3.6V; 50Ω Load: 0~1.8V
<b>NEP</b>	$2.92 \times 10^{-11}$ W/Hz <sup>1/2</sup>	$3.6 \times 10^{-11}$ W/Hz <sup>1/2</sup>	$3.0 \times 10^{-15}$ W/Hz <sup>1/2</sup>	$7.8 \times 10^{-12}$ W/Hz <sup>1/2</sup>
<b>Photodetector Depth</b>	0.09" (2.2 mm)	0.20" (5.0 mm)	0.10" (2.4 mm)	0.07" (1.8 mm)
<b>Operating Temperature</b>	10-50°C	10-40°C	10-50°C	
<b>Storage Temperature</b>	-25-70°C			



<b>Detector Net Weight</b>	<b>0.10kg</b>		<b>0.06kg</b>		
<b>Dimensions</b>	<b>2.79" X 1.96" X 0.89" (70.9 mm X 49.8 mm X 22.5 mm)</b>		<b>2.79" X 1.96" X 0.89" (70.9 mm X 49.9 mm X 22.5 mm)</b>		
<b>Power Supply Interface</b>	<b>Power Supply</b>	<b>Power Switch</b>	<b>Signal Interface</b>	<b>Support Rod Interface</b>	<b>Optical Interface</b>
<b>LUMBER GRADE SMV3 FEMALE</b>	<b>LDS12B(DP), ±12 VD, C Linear Power Supply, 6W, 220VAC</b>	<b>Slide switch with LED indicator</b>	<b>BNC Female Socket</b>	<b>M4 X 2</b>	<b>SM1 X 1 SM0.5 X 1</b>



## 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 , $\Phi$ 1.0mm	



				400-1000nm , $\Phi$ 150 $\mu$ m	
				320-1100nm , 1.1mmX1.1mm	
				320-1000nm , $\Phi$ 0.8mm	

## Attachment 2: Model Comparison Table

Model	Specs
MP-PD-M-S-150-AF2B10	200-1100nm Silicon-based Amplifying Photodetector, Active area $\Phi$ 1.0mm, Fixed Gain $1 \times 10^4$ V/A, Bandwidth DC ~ 150MHz
MP-PD-M-S-380-AF4F015	400-1000nm Silicon-based Amplifying Photodetector, Active area $\Phi$ 150 $\mu$ m, Fixed Gain $5 \times 10^4$ V/A, Bandwidth DC ~ 380MHz
MP-PD-M-S-20-AF3D11	320-1100nm Silicon-based Amplifying Photodetector, Active area 1.1mm $\times$ 1.1mm, Fixed Gain $1 \times 10^{12}$ V/A $\pm$ 10%, Bandwidth DC ~ 20MHz



<b>MP-PD-M-S-50-AF3C8</b>	<b>320-1000nm Silicon-based Amplifying Photodetector, Active area <math>\Phi</math>0.8mm, Fixed Gain 100kV/A, Bandwidth DC ~ 50MHz</b>
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