

# Avalanche Photodiode

## InGaAs-APD-Fix-G AV Photodetector

Professional avalanche photodetectors for near-infrared light detection

- High-sensitivity detection
- Fixed gain stability
- Specific wavelength band response
- Integrated amplification function



One Platform Many Possibilities

Contact Us [sales@venuslabtech.com](mailto:sales@venuslabtech.com)

Get a Quote



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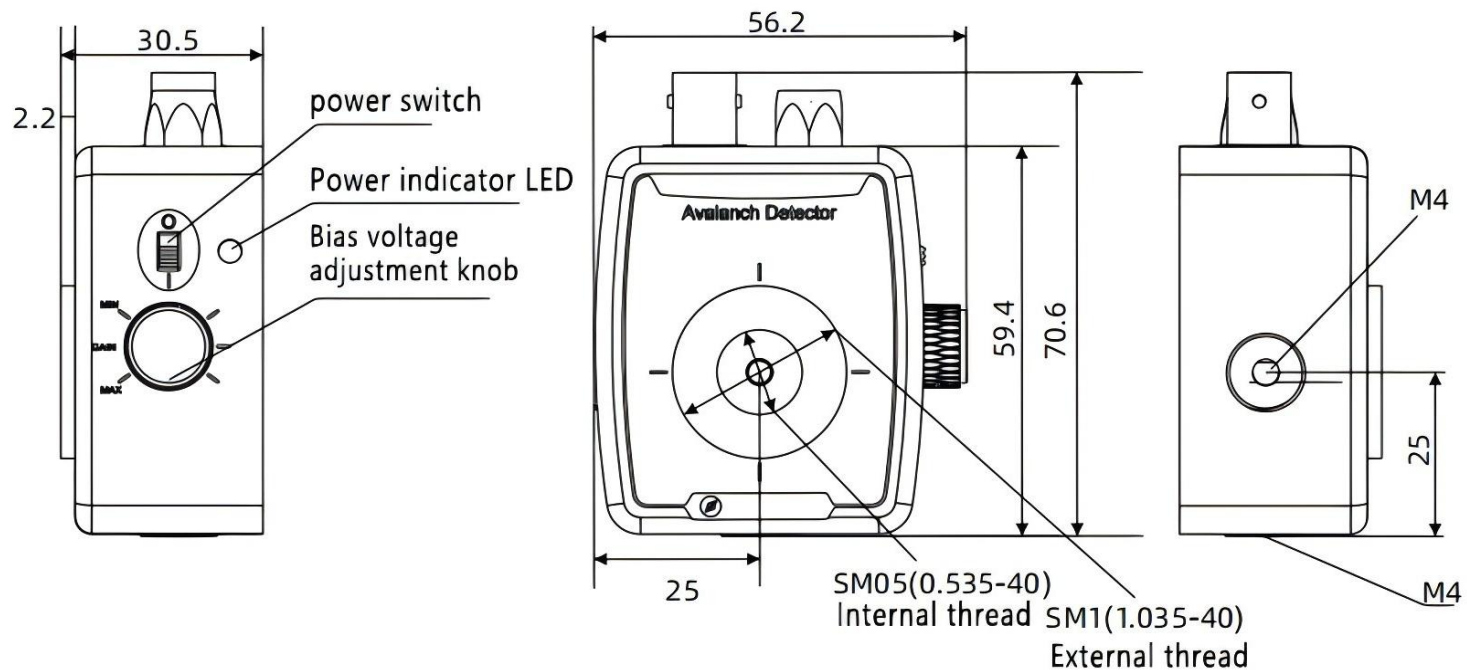


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## Overview

Introduction to the product and its size chart :

This product is an avalanche photodiode (APD) made of indium gallium arsenide material. It enhances the photoelectric conversion gain through the avalanche effect, resulting in higher sensitivity, making it suitable for weak light signal detection. Its photosensitive range covers 900nm to 1700nm, and it is commonly used in near-infrared light measurement. As an amplifying detector, it has a fixed gain, enabling quantitative photoelectric conversion. Moreover, it is seamlessly compatible with the same type of products from THORLABS, featuring excellent performance and high cost-effectiveness. It also provides comprehensive technical support and non-standard customization services.



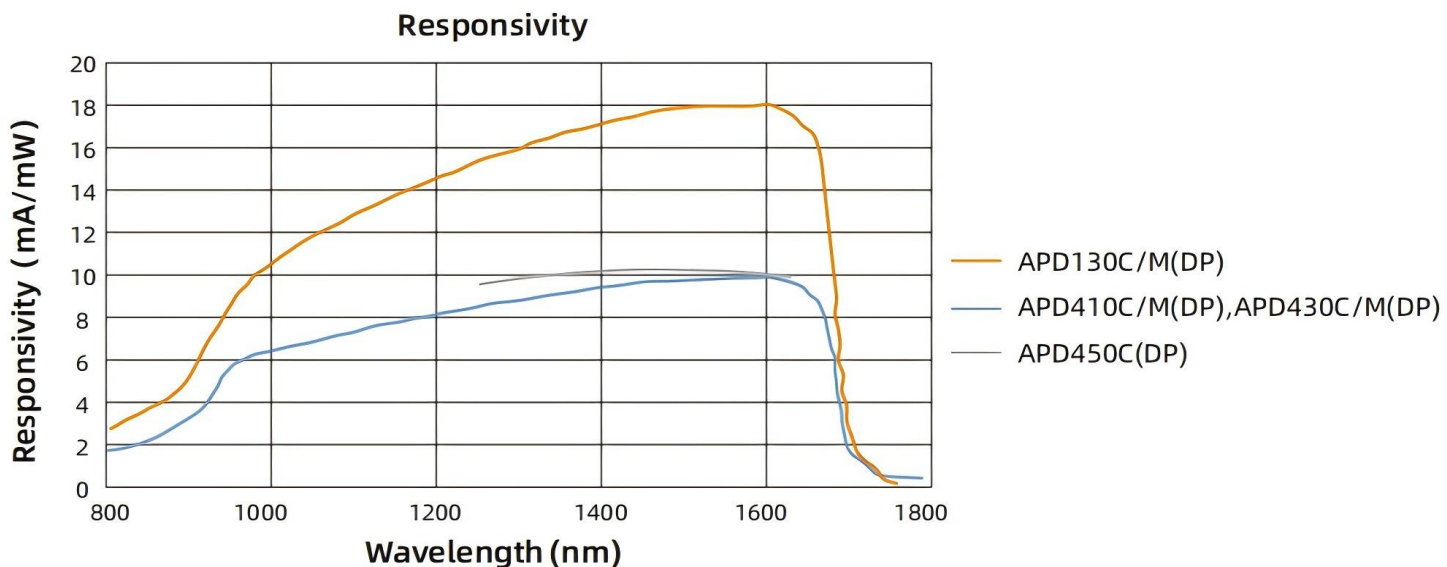
## Specifications

Same parameter table :

| Parameter Name          | Parameter Details   |
|-------------------------|---|
| Spectral Response Range | 900 ~ 1700nm (APD450C(DP) has a sub-band of 1260 ~ 1650nm)  |
| Detector Material       | Indium Gallium Arsenide (InGaAs)  |
| Detector Type           | Amplified, Fixed Gain Avalanche Photodetector (APD)   |
| Detector Net Weight     | 0.1kg   |
| Operating Temperature   | 0 ~ 40  |
| Storage Temperature     | -40 ~ 70  |
| Appearance Size         | 2.78" X 2.21" X 1.20" (70.6 mm X 56.2 mm X 30.5 mm)   |
| Interface Configuration | Power switch (slide switch with LED indicator), signal interface (BNC female), support rod interface (M4 X 2), optical interface (SM1 X 1, SM0.5 X 1) |

## Responsivity

### Responsivity Diagram of the InGaAs-APD-Fix-G Series



## Service & Support

We are dedicated to delivering exceptional optoelectronic solutions to every client. From precision manufacturing and secure delivery to full-lifecycle technical support, we are here to ensure a seamless and reliable experience at every step.

### 1. Warranty Policy

#### Quality First, Worry-Free Operation

**Warranty Period:** We offer a **two-year** warranty service for all of our core optoelectronic products, effective from the date of shipment.

**Coverage:** We provide free repair or replacement services for malfunctions caused by material defects or workmanship errors under normal operating conditions.

**Rapid Response:** Upon receiving a warranty claim, we guarantee to initiate the assessment process within **24 hours** to minimize your equipment downtime.

### 2. Technical Support

#### Expert Team, Full-Process Guidance

**Technical Consultation:** Our team of senior optical engineers provides **24/7 online support** to assist with installation, commissioning, optical path alignment, and parameter optimization.

**Scheduled Maintenance:** We offer full-lifecycle maintenance recommendations, including firmware upgrades, optical component cleaning guidelines, and precision calibration services.

**Training Services:** We provide customized remote or on-site operational and safety training to ensure your team can operate the equipment efficiently and safely.

### 3. Logistics & Delivery

#### Precision Packaging, Global Reach

**Professional Packaging:** Given the fragile nature of optical instruments, we utilize industrial-grade shockproof, anti-static, and moisture-proof vacuum packaging to ensure zero damage during transit.

**Logistics Partners:** We partner with top-tier global logistics providers (**DHL / FedEx / UPS / SF Express**) to offer reliable shipping with real-time tracking.

**Shipping Insurance:** All shipments are fully insured to eliminate logistics risks.

### 4. Compliance & Certification


#### Strict Standards, Total Compliance

**Quality Certification:** Our manufacturing process is **ISO 9001 certified**, and our products comply with international standards such as **CE** and **RoHS**.

**Export Compliance:** "Committed to environmental responsibility, all our products comply with **RoHS 2.0** and **REACH** standards, ensuring safety and global compliance."

## Explore Series

| Model         | Fixed Gain (Hi-Z Load) | Sensitive Area Size | Bandwidth Range | Spectral Response Range |
|---------------|------------------------|---------------------|-----------------|-------------------------|
| APD130C/M(DP) | 100 kV/A               | 0.2mm               | DC~50MHz        | 900~1700nm              |
| APD410C/M(DP) | 500 kV/A               | 0.2mm               | DC~10MHz        | 900~1700nm              |
| APD430C/M(DP) | 10 kV/A                | 0.2mm               | DC~400MHz       | 900~1700nm              |
| APD450C(DP)   | 10 kV/A                | 1.5mm               | 0.3~1600MHz     | 1260~1650nm             |

 Get in touch with our team to explore configurations, request a quote, or learn more about customized solutions tailored to your needs.

Let us help you move science forward—faster and smarter.

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