

# Polarizer

## Thin Film Polarizer

Precision polarization beam splitters tailored for high-power lasers

- Ultra-High LIDT
- Superior Extinction Ratio
- High Transmission & Low Loss
- Precise Surface Flatness
- Hard-Coating



One Platform Many Possibilities

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

Get a Quote



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## Overview

### Venuslab Product Introduction: Thin Film Polarizers

Venuslab Thin Film Polarizers are versatile and cost-effective optical components designed for general-purpose polarization control. These polarizers are manufactured by coating a dichroic polymer material onto a high-quality transparent glass substrate.

### Working Principle:

The device operates on the principle of **selective absorption**. The dichroic coating efficiently absorbs the light component polarized in one direction while transmitting the component polarized in the orthogonal direction, resulting in a linearly polarized output.

### Key Advantages

Compared to traditional polarizing prisms, Venuslab Thin Film Polarizers offer several distinct benefits for optical system integration:

- **Wide Acceptance Angle:** Unlike prisms which require precise alignment, these polarizers maintain performance over a larger range of incidence angles, making them easier to align and integrate.
- **Large Aperture Availability:** The thin-film manufacturing process allows for larger clear apertures (e.g., up to Ø50.8mm), making them ideal for applications involving wide beams or large imaging sensors.
- **Cost-Effective Solution:** They provide a high-value alternative to crystal polarizers for applications where ultra-high extinction ratios or high-power handling are not critical.

## Qualification

### Linear Polarizer Parameter Table (Venuslab VLLP Series)

Model	Product Name	Dimensions (mm)	Clear Aperture (mm)	Wavelength Range (nm)	Extinction Ratio
VLLP-12.7-400/700	Linear Polarizer	Ø12.7 x 2.6	> 8.9	400 - 700	100:1
VLLP-25.4-400/700	Linear Polarizer	Ø25.4 x 2.6	> 20.3	400 - 700	100:1
VLLP-30-400/700	Linear Polarizer	Ø30 x 2.6	> 24	400 - 700	100:1
VLLP-50-400/700	Linear Polarizer	Ø50.8 x 2.6	> 45	400 - 700	100:1
VLLP-30-760/2000-AR*	SLAR Polarizer	Ø30 x 6	> 27	760 - 2000	100:1

### Circular Polarizers Parameter Table(Venuslab VLCP Series)

Model	Product Name	Dimensions (mm)	Clear Aperture (mm)	Wavelength Range (nm)
VLCP-25.4-400/700	Circular Polarizer	Ø25.4 x 2.4	20.9	400 - 700

## 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	Wavelength Range (nm)	Clear Aperture (mm)	Product Name	Dimensions (mm)
VLLP-12.7-400/700	400 - 700	> 8.9	Linear Polarizer	Ø12.7 x 2.6
VLLP-25.4-400/700	400 - 700	> 20.3	Linear Polarizer	Ø25.4 x 2.6
VLLP-30-400/700	400 - 700	> 24	Linear Polarizer	Ø30 x 2.6
VLLP-50-400/700	400 - 700	> 45	Linear Polarizer	Ø50.8 x 2.6
VLLP-50-400/700	760 - 2000	> 27	SLAR Polarizer	Ø30 x 6
VLCP-25.4-400/700	400 - 700	20.9	Circular Polarizer	Ø25.4 x 2.4

 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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