

Optical Lens

SFS Plano-Concave Lens

The Premier Choice for Deep UV & High-Energy Divergence

- Superior Material
- Broadband Transmission
- High Damage Threshold
- Precision Specs



One Platform Many Possibilities

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Overview

Precision Divergence for Critical Applications

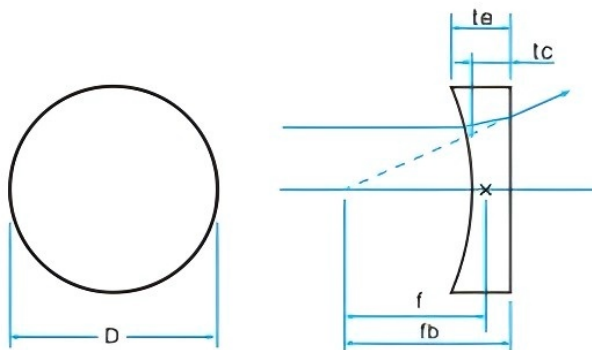
The VenusLab SFS (PC-UV) Series Plano-Concave Lenses are engineered to meet the stringent material demands of Ultraviolet (UV) and high-power infrared applications. Featuring a negative focal length, they are utilized for diverging collimated beams, beam expansion, or reducing the effective focal length of optical systems.

Unlike standard glass, our fused silica substrates possess an extremely low coefficient of thermal expansion, effectively mitigating thermal lensing effects. Notably, select models (marked with *) are crafted from **Corning 7980**, offering superior homogeneity and ultra-low laser-induced fluorescence, making them ideal for semiconductor inspection and laser micromachining.

Key Applications

- **UV Laser Beam Expanders:** Galilean expanders for 266nm, 355nm lasers.
- **High-Power Laser Divergence:** Preventing air breakdown at focus due to high energy density.
- **Intra-Cavity Optics:** Shortening resonator length or compensating for thermal lensing.

Dimension:



Qualification

PC-UV Series Technical Specifications

Technical Parameter	Specification Data
Material	Quartz (JGS1 UV Fused Silica)(Models with * use Corning 7980)
Shape	Plano-Concave
Design Wavelength	546.1nm (n=1.460)
Surface Quality	40-20 Scratch-Dig
Surface Power	1-5
Irregularity	0.2-1
Clear Aperture	> 90%
Centration	3' (Standard)
Chamfer	0.25mm x 45°
Diameter Tolerance	+0.0 / -0.1 mm
Thickness Tolerance	± 0.1 mm
Focal Length Tolerance	± 1%

Selection Chart

PC-UV Series Ordering Information & Model List

Model	D (mm)	f (mm)	Te (mm)	Tc (mm)	fb (mm)	r (mm)	Centration
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VLPC-UV-06-06	6	-6	5.5	2	-7.37	2.76	1'
VLPC-UV-06-12	6	-12	4.2	2	-13.4	5.5	1'
VLPC-UV-10-15	10	-15	4.1	2	-16.4	6.9	1'
VLPC-UV-10-20	10	-20	3.5	2	-21.4	9.2	1'
VLPC-UV-10-30	10	-30	2.9	2	-31.4	13.8	1'
VLPC-UV-12-15	12.7	-15	5.9	2	-16.4	6.9	1'
VLPC-UV-12-25	12.7	-25.4	4.9	3	-27.2	11.68	1'
VLPC-UV-12-38	12.7	-38.1	4.2	3	-40.1	17.53	1'
VLPC-UV-12-110	12.7	-110	2.13	2	-111.6	50	1'
VLPC-UV-12-220	12.7	-220	2.8	2	-221.4	100	1'
VLPC-UV-12-430	12.7	-430	4.1	2	-432.1	200	1'
VLPC-UV-20-30	20	-30	6.3	2	-31.4	13.8	1'
VLPC-UV-20-50	20	-50	4.3	2	-51.4	23	1'
VLPC-UV-20-80	20	-80	3.4	2	-81.4	36.8	1'
VLPC-UV-20-100	20	-100	3.1	2	-101.4	46	1'
VLPC-UV-20-150	20	-150	2.7	2	-151.4	69	1'
VLPC-UV-25-35	25	-35	8	2	-36.4	16.1	1'
VLPC-UV-25-50	25	-50	5.7	2	-51.4	23	1'
VLPC-UV-25-75	25	-75	4.3	2	-76.4	34.5	1'
VLPC-UV-25-80	25	-80	4.2	2	-81.4	36.8	1'
VLPC-UV-25-100	25	-100	3.7	2	-101.4	46	1'
VLPC-UV-25A-30	25.4	-30	10.4	2	-31.4	13.8	1'
VLPC-UV-25A-50	25.4	-50	5.7	2	-51.37	23	1'
VLPC-UV-25A-60	25.4	-60	5.1	2	-61.37	27.6	1'
VLPC-UV-25A-75	25.4	-75	4.3	2	-76.37	34.5	1'
VLPC-UV-25A-100	25.4	-100	3.7	2	-101.37	46	1'
VLPC-UV-25A-200	25.4	-200	2.88	2	-201.38	92	1'
VLPC-UV-25A-250	25.4	-250	2.62	1.9	-251.4	115	1'
VLPC-UV-25A-300	25.4	-300	2.6	2	-301.4	138	1'
VLPC-UV-25A-350	25.4	-350	2.4	1.9	-351.4	161	1'
VLPC-UV-25A-400	25.4	-400	2.44	2	-401.367	184	1'
VLPC-UV-25A-450*	25.4	-450	2.29	1.9	-451.4	202.5	1'
VLPC-UV-25A-500	25.4	-500	2.36	2	-501.4	230	1'
VLPC-UV-25A-600	25.4	-600	2.3	2	-601.4	276	1'
VLPC-UV-25A-700	25.4	-700	2.26	2	-701.4	322	1'
VLPC-UV-25A-750*	25.4	-750	2.14	1.9	-751.4	337.5	1'
VLPC-UV-25A-800	25.4	-800	2.22	2	-801.4	368	1'
VLPC-UV-25A-850*	25.4	-850	2.11	1.9	-851.4	382.5	1'
VLPC-UV-25A-1K	25.4	-1000	2.05	2	-1001.33	460	1'
VLPC-UV-25A-1K2*	25.4	-1200	2.05	1.9	-1201.4	540	1'
VLPC-UV-25A-1K8*	25.4	-1800	2	1.9	-1801.4	810	1'
VLPC-UV-25A-2K*	25.4	-2000	1.989	1.9	-2001.4	900	1'
VLPC-UV-25A-2K2	25.4	-2200	1.98	1.9	-2201.4	1000	1'
VLPC-UV-25A-3K3	25.4	-3300	1.954	1.9	-3301.4	1500	1'
VLPC-UV-25A-4K5	25.4	-4500	1.94	1.9	-4501.4	2000	1'

VLPC-UV-50-100	50	-100	10.4	3	-101.4	46	1'
VLPC-UV-50-200	50	-200	6.5	3	-201.4	92	1'
VLPC-UV-50-400	50	-400	4.7	3	-401.4	184	1'
VLPC-UV-50-1K	50	-1000	3.7	3	-1001.4	460	1'
VLPC-UV-50A-75	50.8	-75	14.23	3	-76.4	34.5	1'
VLPC-UV-50A-100	50.8	-100	10.6	3	-101.4	46	1'
VLPC-UV-50A-200	50.8	-200	6.6	3	-201.4	92	1'
VLPC-UV-50A-400*	50.8	-400	4.76	3	-401.4	180	1'
VLPC-UV-50A-500	50.8	-500	4.4	3	-501.4	230	1'
VLPC-UV-50A-600*	50.8	-600	4.17	3	-601.4	270	1'
VLPC-UV-50A-800*	50.8	-800	3.88	3	-801.4	360	1'

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	r (mm)	Tc (mm)	fb (mm)	Centration	Te (mm)	D (mm)
VLPC-UV-06-06	2.76	2	-7.37	1'	5.5	6
VLPC-UV-25A-50	23	2	-51.37	1'	5.7	25.4
VLPC-UV-25A-450*	202.5	1.9	-451.4	1'	2.29	25.4
VLPC-UV-50A-100	46	3	-101.4	1'	10.6	50.8

 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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