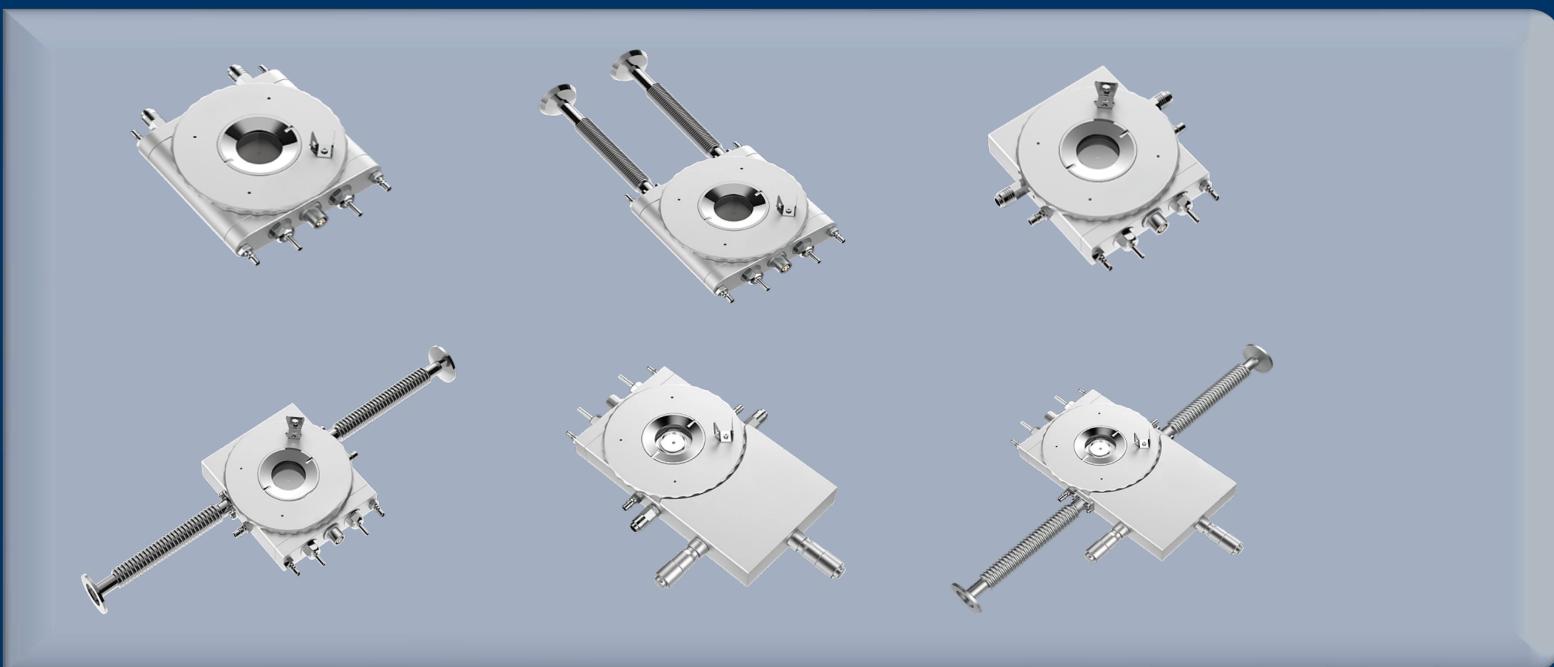


Optical OptiThermo Stage

Universal temperature control technology + unified optical adaptability + consistent sample positioning system

- Compatibility with multi-scenario environments
- Intelligent temperature control integration
- Modular interface design
- Lightweight and compact design



One Platform Many Possibilities

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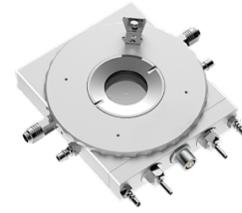
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VLO-190-600S



VLO-190-400SV



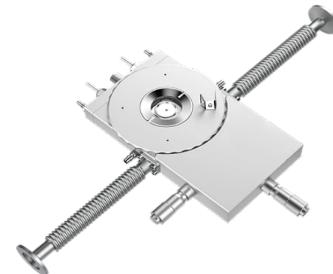
VLO-190-600S-T



VLO-190-400SV-T



VLO-190-600S-XY



VLO-190-400SV-X

Overview

Introduction to VL Optical Thermal Stage Product:

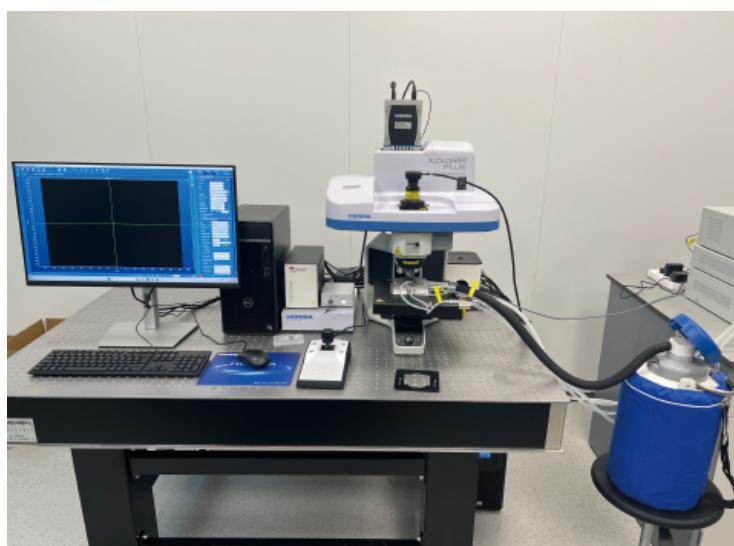
The optical thermal stage features excellent temperature control. It achieves wide temperature adjustment through advanced refrigeration and heating technologies, with high stability, adapting to extreme testing requirements from ultra-low temperatures to high temperatures. Equipped with high-quality optical windows, it offers good light transmittance and low distortion, balancing operability and sealing performance. It supports reflection/transmission optical paths and can be combined with microscopes and spectrometers to realize photoelectric synchronous testing. It includes a high-precision sample positioning and adjustment device, and the sample chamber supports vacuum/specific atmospheres to reduce interference, providing a stable and reliable platform for scientific research and industrial testing in fields such as materials science and semiconductors.

Specifications

Parameter Item	Parameter Value
Temperature Stability	±0.1°C
Window Material	JGS2 Quartz Glass (Transmission band range: 220nm~2500nm, detachable and replaceable manually)
Optical Path Support	Reflection/Transmission (φ2mm light-transmitting hole)
Sample Stage Basic Feature	Metal material (silver/copper, etc.) for stable loading and thermal conductivity
Basic Chamber Configuration	Supports vacuum/atmosphere environment (customizable on demand)
Core Temperature Control Method	Liquid nitrogen cooling + resistance heating (some models include TEC cooling)

Application

- **In-situ Thermal Microscopy**
(Melting, Crystallization, and Phase Transitions under -190°C to 600°C)
- **Variable Temperature Spectroscopy**
(Raman, Photoluminescence, and UV-Vis-NIR analysis enabled by JGS2 Quartz Windows)
- **Semiconductor & Thin Film Characterization**
(Optoelectronic performance and thermal stability testing)
- **Controlled Environment Testing**
(Materials research under Vacuum or Inert Gas atmospheres)
- **Crystallization Kinetics**
(Real-time observation of nucleation and growth)



Explore Series

Model	Overall Dimensions (LxWxH)	Lower Window Size (Transmission Path Optional)	Net Weight	Temperature Range
VLO-190-600S	91mmx97mmx24mm	φ10mmx1mm	0.5kg	-190°C~600°C
VLO-190-400SV	91mmx97mmx24mm (Excluding Bellows)	φ10mmx1mm	0.6kg	-190°C~400°C
VLO-190-600S-T	86mmx100mmx21.5mm	φ10mmx0.5mm	0.5kg	-190°C~600°C
VLO-190-400SV-T	86mmx100mmx21.5mm (Excluding Bellows)	φ10mmx0.5mm	0.6kg	-190°C~400°C
VLO-190-600S-XY	155mmx86mmx21.5mm	φ10mmx1mm	0.7kg	-190°C~600°C
VLO-190-400SV-X	155mmx86mmx21.5mm (Excluding Bellows)	φ10mmx1mm	0.8kg	-190°C~400°C

 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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