

MVR Datasheet



- Motorized XY and Z-focus movement, filter cube and objective changes allow fully automated whole slide imaging and well plate scanning
- Industrial reliability and proven long-term operation in high throughput environments ensure maximum up-time
- Modules are easily combined and reconfigured to adapt as your needs change
- Supports Zeiss, Nikon, Olympus, or Edmund Optics objective lenses
- Zaber Motion Library enables precise, low-latency control over sample positioning, focus, illumination, objective selection and camera triggering in Python, C++, C# and Java
- Fully supported by μ Manager microscope software
- Custom versions available

MVR Series Overview

Zaber's Nucleus® motorized, inverted microscopes lower the barriers to automated microscopy. By combining Zaber precision motion control and world-class optics, Nucleus microscopes deliver unparalleled performance and value.

Build the exact microscope system you need. Nuclues' modular design makes it easy to add or remove modules such as epi and transmitted illuminators, laser autofocus, additional inputs into the optical path, and even swap the tube lens, should you need to conduct hyperspectral imaging.

While most microscope companies charge you thousands for software, we provide free Zaber Launcher software for controlling and configuring your microscope. The Nucleus microscope platform is also fully compatible with Inscoper, VisiView, Starlyte Nebula, and µManager microscopy software. For applications requiring extended capabilities, our comprehensively documented Zaber Motion Library API provides access to all microscope features, making custom scripting and software development easy.

For startups developing a device as a stand-alone product or to power a proprietary service, the Nucleus® microscopes hep you launch faster. Develop your proof of concept on a flexible and fully featured research system, then seamlessly transition to a production optimized imaging imaging subsystem with no additional hardware or software engineering required.

MVR Specifications

Focus Stage	X-LDA025A-AE53D12
Focus Stage Encoder Resolution	1 nm
Focus Stage Minimum Incremental Move	20 nm
Focus Stage Repeatability	< 0.2 μm (< 0.000008")
Typical Focus Stage Move and Settle Time (200 nm move, < 15 nm, 165 g load)	< 25 ms
Typical Focus Stage Move and Settle Time (500 nm move, < 15 nm, 165 g load)	< 35 ms
Typical Focus Stage Move and Settle Time (1000 nm move, < 15 nm, 165 g load)	< 45 ms
Filter Cube Change Time	350 ms
Field Number (FN)	20 mm (0.787")