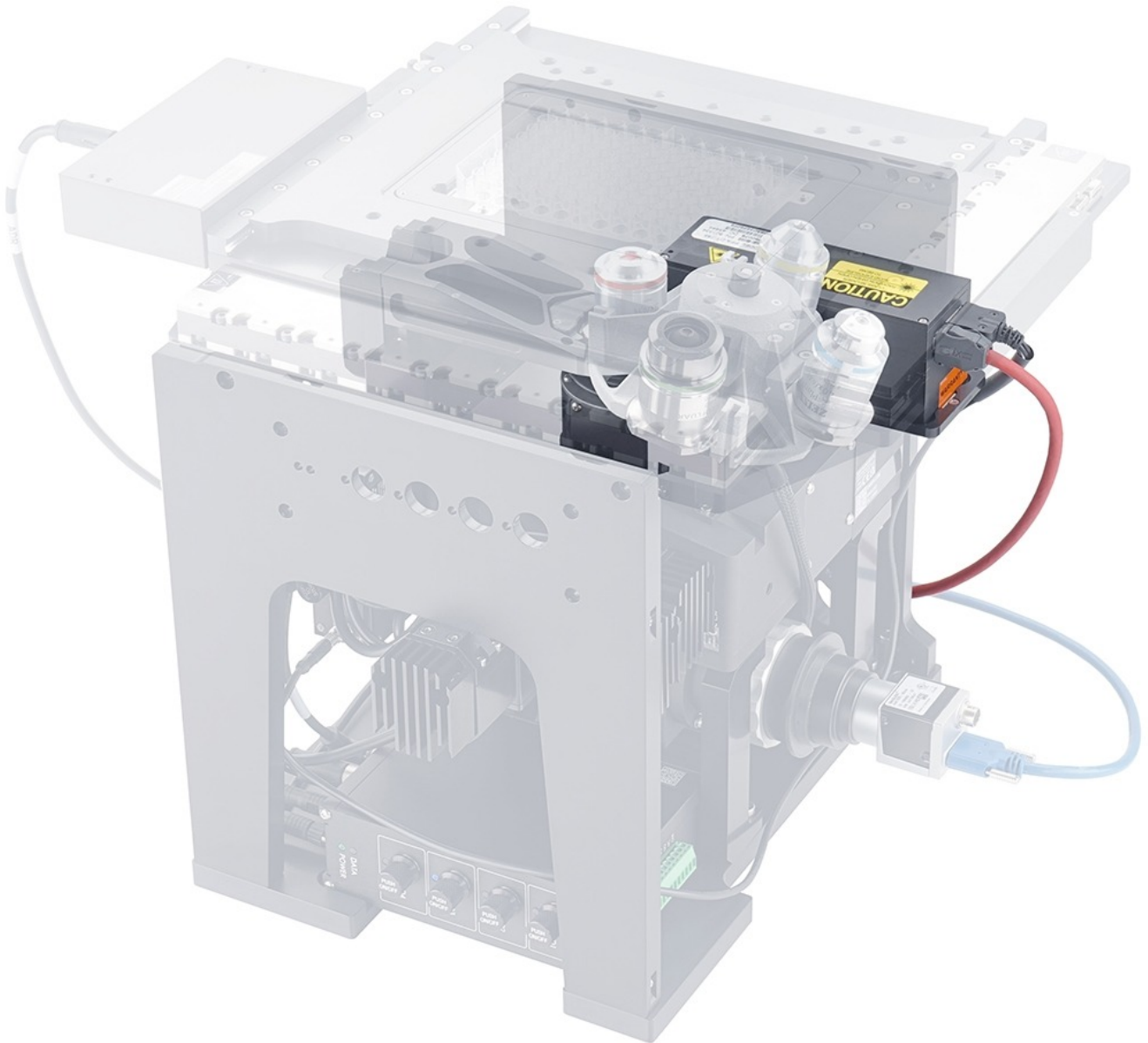


HL04 Datasheet



- Maximize throughput with sub-450 ms focus time.
- Focus hold mode for long duration imaging and XY scanning.
- Unrestricted objective selection with full compatibility for Nikon, Zeiss,

- Olympus and Edmund Optics objectives
- Simple and intuitive control through the free Zaber Launcher software, and Zaber Motion Library API .
- Low-energy IR laser is safe for live cells

HL04 Series Overview

Zaber's HL04 Laser Autofocus Sensor adds a reliable and fast autofocus system to Zaber Nucleus™ microscopes and MKR microscope cores. The low power 785 nm infrared laser avoids photobleaching and is safe for live cell imaging. Single point and continuous scanning modes support high throughput imaging with area scan and line scan TDI cameras. The HL04 sensor integrates directly with the focus drive of an Nucleus™ MKR microscope core to achieve low latency control for rapid and accurate focus.

Achieve excellent long-term stability support during long duration studies with active compensation for thermal drift. High repeatability ensures consistent results in multi-dimensional imaging protocols.

Configuration and control are easy using Zaber Launcher's free microscope app, while the Zaber Motion Library API supports more advanced automation.

When mounted to a Zaber Nucleus™ microscope, the MJB25C-F1 junction block provides the required input into the optical path of the system and includes a pre-mounted 785nm notch filter.

The HL04 autofocus sensor is not intended for use on its own or with third party systems. To function, it must be used as part of a Nucleus microscope system.

For more information visit: <https://www.zaber.com/products/microscopes/HL04>

HL04 Drawings

- [HL04.pdf \(PDF drawing of HL04 autofocus sensor\)](#)

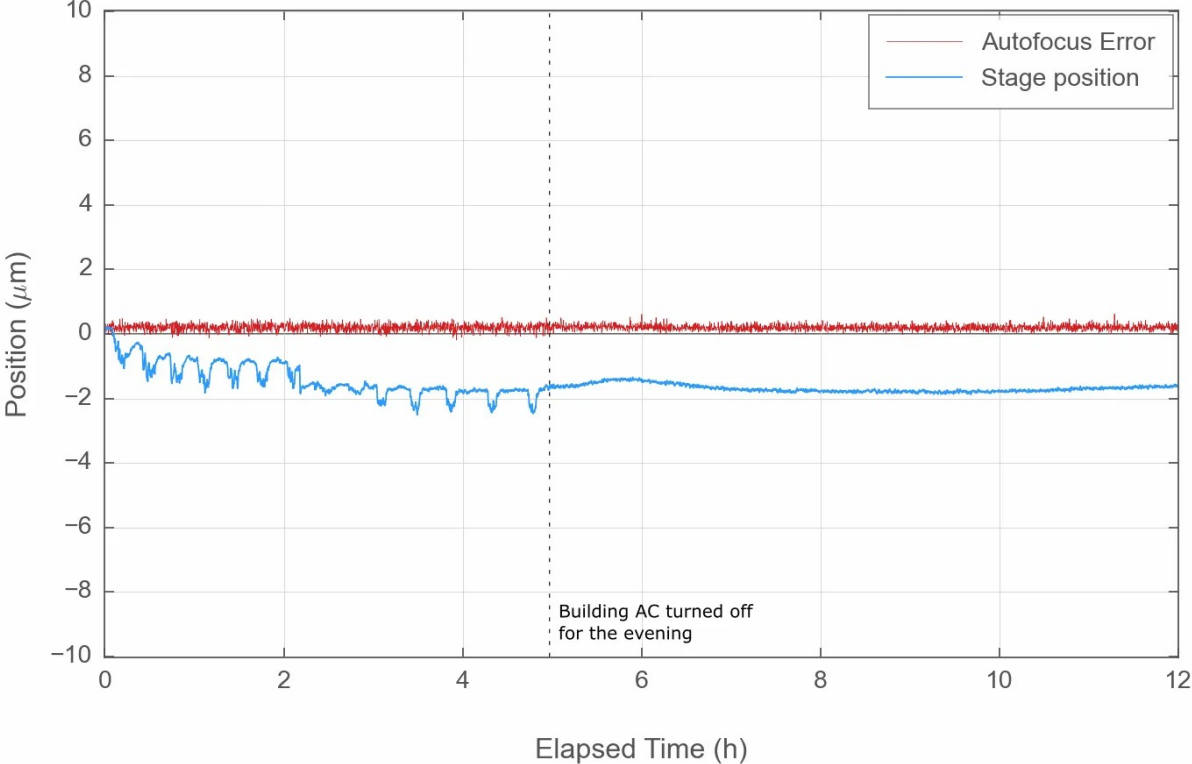
HL04 Specifications

Communication Interface	Ethernet, Analog Voltage Output
Power Supply	10.8 - 26.4 VDC
Operating Temperature Range	20 to 30 °C
CE Compliant	Yes
Weight	0.8 kg (1.764 lb)
Focus Time	250 - 450 ms
Focus Sensor Repeatability	450 nm
Laser Wavelength	785 nm
Optical Notch Filter Wavelength	785 nm
Optical Notch Filter Stop Band Width	25 nm

HL04 Series Charts

Autofocus Steady State Error

X-LDA025A-AE53D12, 40x EC Plan Neofluar, ID86154



Autofocus Laser Filter Transmission and Common Fluorophore Excitation and Emission Spectra

