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The LFA-2010 Linear Focus Actuator is a high performance, compact positioning system specifically developed for optical applications requiring both high precision and high-speed positioning over a short to medium stroke. Designed to send the optical path directly through the middle of the motor, optical load under acceleration will not produce any tip or tilt aberrations.

eaup **^ent** solutions

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Up to 20 Millimeter Diameter **Clear Optical Path**



Integrated English and Metric Mounting

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Integrated Lens 'C'-Mount at Motor Center for Tip/Tilt Free Motion

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Plug-in Compatibility with SCA814 Servo Amplifier



LFA-2010 Linear Focus Actuator

Overview: The LFA-2010 Linear Focus Actuator is ideal for optical focusing and other micro-positioning applications such as scanning interferometry, surface structure analysis, disk drive testing, auto-focus systems, confocal microscopy, biotechnology, and semiconductor test equipment.

Stage: The LFA-2010 is guided along a single axis by a patented flexure design. Flexures produce a compact and light package with zero striction/friction, ultra-high resolution and exceptional guiding precision. The stage can be oriented in either a vertical or a horizontal position. Multiple sets of mounting holes are included for convenient mounting. A standard 'C' mount is provided on the translator element and optional adapters are available for DIN standard microscope objectives and simple lens.

LFA-2010 Specifications:

20 mm

10 mm 150 nm

4.5 lbs 0.6 lbs/Amp 1.5 ohms

100 µH

30 lbs. 10 sec

50 ppm/1000hr

75 x 75 x 74mm 1.5 kg

±250 nm/°C

None None

<1 um

50 g

Clear Aperture:

Range of Motion

Peak Ford

Hysteresis

Deadband: Travel Non-St

Dimensions: Total Mass: Moving Mass

Positioning Resolution

Repeatability, Short Term Repeatability, Long Term

Temperature Stability:

Max Continuous Fo

Motor Constant

Coil Resistance Coil Inductance Voice Coil: The LFA-2010's responsive performance is achieved through a high force, low mass moving voice coil architecture (Voice coil motors produce the least amount of electrical noise of any motor type available today.). Our voice coil motor adds no addition friction to the stage and provides superior responsiveness over micropositioners with conventional screw drives and bearing guide way.

Positioning Feedback Sensor: The LFA-2010 includes a sub-micron resolution linear displacement sensor. Our sensor has high bandwidth and low noise for responsive and precise movements using a frictionless, non-contact optical technology. The compact nature of the system and its extremely low mass, improves system performance.



















We pride ourselves in giving OEMs and VARs precisely the tools they need to make the best systems possible—our highest priority is in applications support. Our knowledgeable engineers will help you analyze your objectives to achieve the very best solutions, even before you become a customer. Undivided attention and long term relationships ensures your success— and ours. Please contact Paul Swanson or our office by phone: (408) 245-7161, fax: (408) 245-7160, mail: 461 East Evelyn Avenue / Sunnyvale, California 94086, or by email: pa.swanson@equipsolutions.com