

MX_099-9000 Outstanding accuracy and Dynamics due to Flexures

Very High Precision Flexure's Linear Stage



Very High Precision and Reliability

The guiding principle used in this linear stage give it intrinsically a very high level of precision. Flexures are absolutely free of friction, wear and backlash and do not need lubrication.

This device is perfectly adapted for very high precision, clean room and vacuum applications. Thanks to the robust design insuring high spatial stiffness in all transverses directions and very high eigen frequencies, the stage fit very well also the requirements of high dynamics applications. The minimum incremental motion is not mechanically limited and is, according with the sensor resolution, in sub-nanometer range.

Combining voice coil actuators, high resolution encoder and flexures, this linear stage insures a very high degree of precision and reliability.

Characteristics

Linear stroke	6 mm
Linear encoder	1Vpp, 8 μ m, TTL 5nm, Endat2.2
Dimensions	112 mm x 51 mm x 195 mm
Actuator force	10 N nominal
Transverses stiffness	50N/ μ m
Eigen frequencies	~ 500Hz
Min. incremental motion	< 1 nm

Mecartex is a cutting-edge company operating in the field of high precision applications.

The company, founded in early 2002 offers micro-positioning devices with high dynamics and precision, and base solutions with motion control.

Customized solutions & manufacturing

Mecartex provides innovative solutions for very high precision applications, offering complete support from development through production while maintaining a short time-to-market.

Flexures technology

Mecartex offers a unique expertise in flexures. This technology enable extremely accurate movements and have numerous advantages like high reliability, absence of friction or contamination proof.