

110LE Advanced Mechanical Test System

Modular Actuator – horizontal or vertical mount
Single Column 110 Series Load Frame included
Tension & Compression
Static, Dynamic, Fatigue Testing

Modular Systems Approach

TestResources test systems are configured to match each customer's test requirements. A common single actuator test system will consist of a load frame or horizontal test table, a linear or torsional actuator, load, strain, or position transducers, controller, and software. Due to a modular product structure, system modules can be swapped or re-configured during as requirements change.

L Series Servocontrol Hardware and Software

LE test systems perform fatigue and static tensile and compression testing of materials, devices and components. The system features a versatile and modular actuator mounting arrangement that enables both a vertical and horizontal mounting to home built or load frames such as the 110 Series.

TestResources servo-all-electric systems require 110V or 220 V electrical power. Configurations are available for high force or high frequency, or both. With short travel LVDT's, small load cells, and new high resolution 24 bit electronics, the system delivers unmatched accuracy for micromechanical test applications. All systems are configured using standard cost-effective modules to match your special test needs.

Each system includes:

- Single Column 100L Load Frame
- E Series Actuator on modular mounting bracket
- Load cell, encoder or LVDT
- Power Pack
- Controller in enclosure
- Single or Multichannel Control Software
- PC with USB port
- Grips, Extensometers, Bathes, Test Software

Highlights

- Wide choice of configuration including several single and multichannel controllers, multiple frames and test tables, wide range of actuator force, travel and speed options. Horizontal or vertical mode.
- Perform fatigue, dynamic and static testing on a variety of materials and components.
- Electrically powered - 110V (or 220V) power pack.
- High resolution 24 bit measurement and control of any system sensor – featuring adjustable full active range - perform high resolution micromechanical tests.
- Compact, lightweight load frame requires only 0.1 m² (1 ft²) desk space. Adjustable test space.



Model 110LE Test Frame

- Modular Actuator Mount
- 110 Series single column frame
- Biobath with grips
- E216 Actuator with 6 inch stroke

Powerful Software

- Control Software allows users to create test setups, generate dynamic wave-shapes, monitor feedback data with scopes and displays, set limits, tuning, calibration and report generation.
- GDS Developers Kit - create special applications with Visual Basic or C development tools. GDS is an Open architecture Global Data Sharing software technology
- Applications Test Software that matches either industry standards or made-to-order. You can reduce operational effort running standard tests where control or analysis is time consuming – including static tests, dynamic materials characterization, fracture mechanics, and other tests. These optional modules automate test control and analyses.

Digital High Performance Controller

- Computer is required and may be optionally customer supplied.
- High speed accurate controller hardware and firmware. Servocontrol loop updates at high speed - to 20 kHz 000 samples per second.
- Configurable cards expand / add more signal conditioned channels, control more test stations or actuators, and additional data acquisition.

110LE Servo-All-Electric Test System

Actuator Model*	E216 Linear Actuator	E316 Linear Actuator	Options
Static Force Rating	± 2.5 kN (575 lb)	± 6 kN (1350 lb)	Higher Forces
Fatigue Force Rating	± 1.1 kN (250 lb)	± 3 kN (650 lb)	Higher Forces
Velocity Max	200 mm/s (8 in/s)	200 mm/s (8 in/s)	Faster Speed
Stroke	± 62 mm (2.5")	± 62 mm (2.5")	Longer Stroke
Cyclic Range	0.00001 to 15 Hz	0.00001 to 15 Hz	Faster Speed

* Actuators are matched to specific test requirements and specifications shown are general in nature. Multiple options are available to satisfy specific customer needs. Performance curves and life predictions for fatigue testing applications are available. Discuss all critical specifications with an application engineer.

Load Frame and Utilities

Load Frame Model	110L Single Column	Options
Column Clearance - Adjustable	0 – 150 mm (0 - 6 inches)	Increase
Footprint	300 mm (12") D x 300 mm (12") W	-
Power Requirements	220 VAC or 110V	-

Notes – Specifications are based on typical test samples and may vary depending on actual conditions. Performance curves are available. All speed specifications based on 220 V Power Pack. Discuss all critical specifications with an application engineer.