

910LX Servohydraulic Test System

Tabletop Compact Package
Static, Fatigue, Dynamic Testing

Force Ratings: 5, 10, 15, 20, and 25 kN (5500 lb)

Speed Range: Static to 100 Hz

Fatigue & Static Test Applications

- *Static Tension & Compression*
- *Ductile and Brittle Fracture Mechanics Research*
Fatigue crack propagation
Threshold stress intensity
- *Low & High-Cycle Fatigue (LCF/HCF)*
- *Spectrum Fatigue*
- *Medical Devices*

Overview

This compact integrated package includes a quiet power supply - no need for air or water cooling. It is ideal for classroom or lab usage. It is based on the latest 2370 Series Digital Servocontroller with high speed 24 bit measurement and control capabilities.

Includes

- Enclosed hydraulic power pack – requires 220V electrical power.
- Actuator with Servovalve, Load cell and LVDT
- 2370 Controller with 24 bit resolution for measurement and control
- MS Series Static and Fatigue Application Software
- Optional PC with USB port
- Optional test applications software
- Optional accessories - test fixtures, grips, extensometers, furnaces,
- Support Services including on site services and internet based remote access support.

Dual Column Load Frame & Servo-all-electric actuator

The 910 Series dual column load frames are feature a compact tabletop construction to minimize use of critical lab space. The moveable crosshead enables adjustable test space. The test machine requires single phase 220V.

2370 Control Hardware

- High Speed (300 MIPS) Digital Signal Processor
- 24 bit Analog Data Conversion
- 32 bit Digital Data acquisition
- 40 bit Servo-Loop Calculations

The 2370 Series offers the latest in electronic performance, functionality and cost savings. The 2370 controller combined with Global Data Sharing (GDS) software, offers the test engineer a unique, flexible, and modular test control system.

The 2370 includes three standard control modes of Load, Stroke, and strain. Additional channels can be available for use with some configurations to include high level, encoders, or LVDTs to be used with extensometers, AC type, or any transducer that can provide a high level 10V analog input signal.



Eight digital input and eight output channels provide drive and device control. Test data can be acquired at speeds up to 5000 samples per second on all feedback channels concurrently.

2370 Software

2370 Software Products are all compatible with Global Data Sharing (GDS) which requires a PC with Microsoft Operating System. Each system includes:

MachineBuilder Software which configures the machine transducers and actuators and enables servo-tuning, calibration, and global limit setting. The system is user configurable. The addition of a second actuator can result in two stations, one biaxial station or both scenarios.

TestBuilder Software makes it possible to set up, launch, and monitor tests. Captured test data may be saved and exported to Excel for reports. Separate panels are available for static and fatigue tests. Create, store and execute tests including command signal, data acquisition and export of data to Excel.

Application Development Options include an applications development software toolkit that allows users to develop software components (extensions to the base control software) using Visual Basic, C+ or Labview and also made to order software programs supplied by TestResources.

910LX Specifications

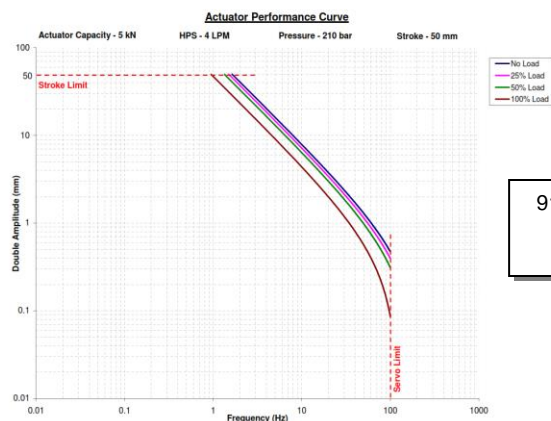
Model	910LX5	910LX10	910LX15	910LX20	910LX25
Force Rating	± 5 kN (1125 lb)	± 10 kN (2250 lb)	± 15 kN (3300 lb)	± 20 kN (4400 lb)	± 25 kN (5500 lb)
Stroke	± 25 mm (± 1")				
Distance between columns	400 mm (16")				
Vertical Test Space (Daylight)	500 mm (20") – longer columns option				
Footprint	600x500 mm (24" x 20")				

Notes – Discuss all critical specifications with an application engineer.

Performance

The 910LX pump and servovalve are the same for all models. The actuator dynamic stroke performance (disregarding the impact of the test sample) depends on force rating. The 25 kN actuator will deliver 20% of the dynamic stroke that a 5 kN actuator delivers at the same frequency.

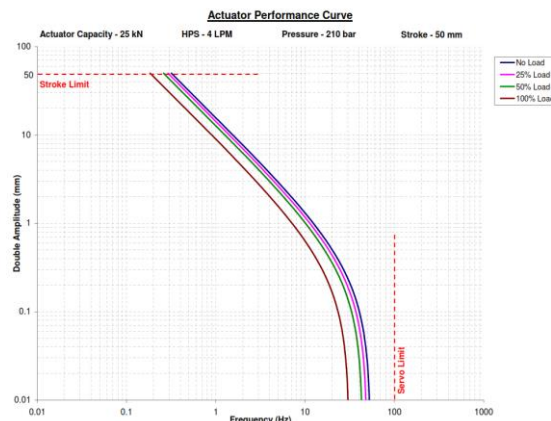
Performance curves for all models available.



Note: The plots above represent are mathematical prediction of system performance. Possession of this information is not a guarantee that the system will perform as predicted. Interpretation of the data is the sole responsibility of the user.

Performance Note: an actuator that delivers 5 times as much force as an alternative (e.g. 25 kN vs 5 kN) generally travels 20% of the speed as the smaller actuator.

910LX25 (5500 lb actuator)



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