

UNIVERSAL TESTING SYSTEMS

Servo Hydraulic Quasi Static Actuator System, 500kN



Our Advance **PLMT-AXS** series servo hydraulic actuator system, designed for special structure testing applications and special testing purpose in R&D departments, the AXS Models feature a long test stroke (500mm (± 250 mm) standard *contact us for other stroke requirements). Understanding the critical importance of operator safety, these actuators incorporate high-quality materials, components, and craftsmanship, and are ideal for testing.

Features and Benefits:

An integrated, high-performance solution to your static & quasi-static force generation requirements. Each of the actuator components and options helps simplify the process of designing and building high-performance testing systems. Actuators are used worldwide in demanding vehicle dynamics, structural fatigue, and component test applications.

Actuators are manufactured for years of reliable operation in test systems. Materials are used in such a way that the friction and the stiction are minimized and reliability and wear resistance are maximized. Actuators are specifically designed to provide the highest levels of fidelity in the application of controlled power.

Long test stroke accommodates a variety of test applications, 500mm

Powerful, yet user-friendly materials testing software provides repeatable and reproducible results for simple to sophisticated testing requirements

Highest precision and controllability of loadings due to our German technology integration

Actuator Key Features:

- Double Acting - Double Ended
- ± 500 kN Load Capacity
- low-friction, long-life hydraulic seals
- ± 250 mm (500 mm) Effective Stroke
- 500kN quick response dynamic loadcell
- SSI Linear Transducer less than 1-micron resolution

- High flow-quick response servo proportional valve x1
- Swivel at Base-End for mounting to Load Frame
- Swivel connection for Rod-end

Load Measurement:

Load measurement and control with high precision advanced load cell with class 0.5 accuracy, Load measurement resolution is 20,000,000 steps

Displacement Measurement:

Displacement measurement and control with position sensor of 0.001mm resolution.

Hydraulic Unit:

The powerful hydraulic unit with 30L/min flow and 120L oil tank including all necessary safety and control valves. It generates a maximum system pressure of 250 bar. A fine 5 µm pressure filter in the pressure line is filtering the hydraulic oil and protecting the system components. Incl. filter pollution, oil level and temperature switch (60°C). The hydraulic unit is inside of the control cabinet and is thereby particularly low noise. A high-quality servo system for pressure or volume flow control enables the most precise force and position control (closed-loop control).

Hydraulic Unit Key Features:

- Maximum Operating Pressure: 250 Bar
- Tank Capacity: 120L
- Maximum Flow Rate: 30 lpm,
- Water Type Cooling System using chillers *Chiller is optional and not included in system
- Pressure and Return Line Filters
- Oil Level, Temperature & Filter Control, Pressure Indicators, adjustable pressure
- With 10m Hydraulic Hose set and Hydraulic Oil included
- Hydraulic manifold system

Note: A wide range of different capacity units are available contact us for other requirements.

Measuring and Control Electronics:

As universal digital measuring and control electronics for testing machines, a EDCi20 controller is used. It is installed in the control cabinet and can be operated with a remote control. The control electronics enables a fully automatic test execution with given load speeds for force, position and strain controlled tests. With sensitive and adjustable break detection, the failure of the sample is detected early. Communication to the PC: Ethernet socket / USB 2.0

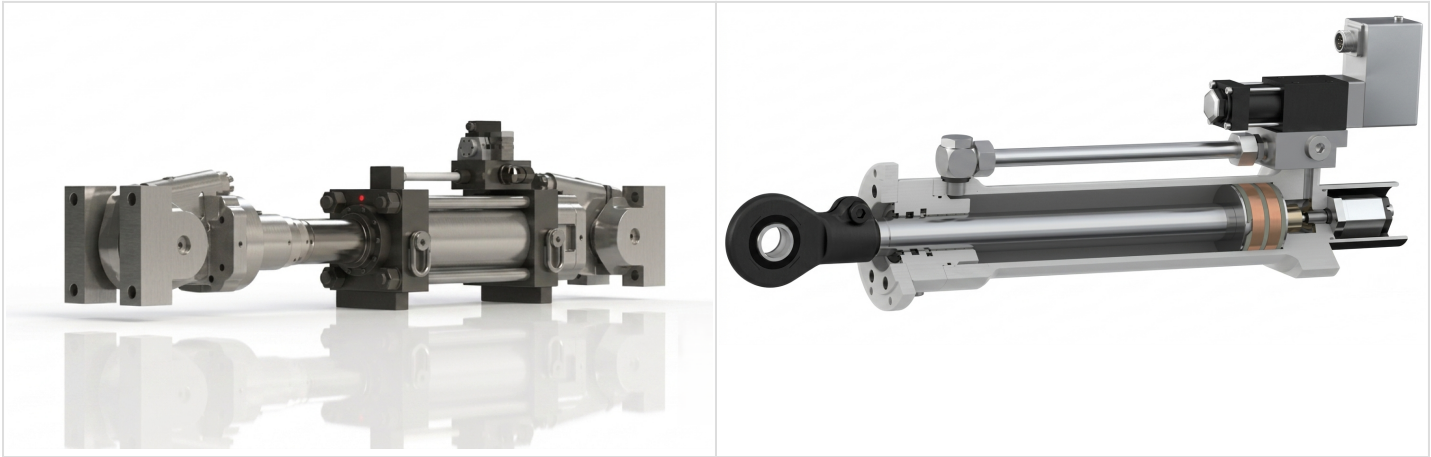
Technical data EDCi20:

- Data acquisition and control speed: 2.5kHz
- Automatic sensor recognition through intelligent sensor plug SGS
- Universal digital IO interface, connection for 8 digital inputs and 8 digital outputs, 24V DC
- Machine control, control output analog ± 10 V or various digital interfaces
- Connection for display / operating unit Remote Machine Control RMCi with emergency stop option
- Connection for incremental digital sensors, e.g. for position measurement
- iSYNC interface for multi-axis applications. Connection of several EDCi.
- Analog input amplifier (e.g. for load cell) with DC supply with a resolution of 20,000,000 steps
- '+/- 10V control output
- Ethernet RJ45, communication with PC. 10/100Mbit
- USB 2.0, communication with PC
- Serial interface for external electronics (optional)

Universal Testing Software:

Innovotest. is the testing industry's most powerful and advanced testing software. Its intuitive workflows are designed to simplify operator training, increase testing efficiency, and minimize safety hazards. User can configure unlimited Live Displays to show force, displacement, time, and results to provide users with immediate feedback on current test status. Graphs, most typically displaying force vs. displacement data or stress vs. strain data, can easily be viewed in more detail by pinching to zoom. Multiple graphs can be displayed in the workspace, including control charts in a completely customizable layout. Create customized report templates that ensure a professional and consistent style for reporting test results. Reports can be generated, printed, and emailed with the press of a button. Report format options include CSV and PDF

Product Gallery



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