

Product Name :
Hydraulic Servo System Trainer

Product Code :
ASTRALAB-SUPPLYA124002



Description :

Hydraulic Servo System Trainer

Technical Specification :

Hydraulic systems are particularly suitable for applications where large actuation forces are required.

The unit allows the operation of a hydraulic servo system to be investigated in detail. A carriage with a mass of 50kg is moved by a hydraulic cylinder.

Additional springs and an adjustable hydraulic damper permit static and dynamic loads to be simulated.

The displacement of the carriage is established using a potentiometric position sensor and compared against the reference variable.

The control deviation is processed in a separate servo amplifier.

Self-contained training system of a complete hydraulic position control loop with adjustable loading conditions.

Oil circuit with hydraulic unit, hydraulic accumulator, 2 manometers, control valve and hydraulic cylinder to move a weighed carriage.

Operation of the electromagnetic control valve for position control by proportional amplifier

Proportional amplifier with adjustable gain and 3- channel line recorder

All control variables available as voltage signals 0...10V

Potentiometric displacement sensor

Adjustable load conditions on carriage using two springs with hand wheel and adjustable damping

Low-friction ball bearing-mounted carriage

Mobile steel profile trolley with built-under unit

Hydraulic unit power output 1.1kW, flow rate 3.8L/min, head 1500m, tank capacity 10L. hydraulic accumulator capacity 2L, accumulator charging valve max. 40L/min.

hydraulic cylinder piston diameter $d = 40\text{mm}$, stroke 150mm, mass moved 50kg

Control valve NG6 nominal flow rate 24L/min, activation $\pm 10\text{V}$, potentiometric position sensor measuring range 150mm, output 0...10V

Servo amplifier 230V, 50Hz, 1 phase.



Astra Scientific

www.astrascientific.com, **Email:** info@astrascientific.com

Address: K-88, 20th Street, Annanagar, Chennai, India – 600040 **Phone:** +91-8860605265