

FPL-004 HYDRAULIC SERVO SYSTEM



RANGE OF EXPERIMENTS TO BE CARRIED OUT:

- a. To study the response of system at various input pressure
- b. To study the response for step input at no load condition
- c. To study the response for inertia load
- d. To study the response for Viscous Damping

TECHNICAL DESCRIPTION :

The setup consist of power-pack, a four way spool valve used as a servo valve, the output cylinder, input and feedback linkages.

A sliding spool type servo-valve supplies fluid to a piston whose motion is feed back through mechanical linkages to actuate the servo-valve and closed the loop.

The translational output is converted into rotational output. The input and output displacements are transferred to recording pens through flexible linkages. A synchronous motor is used to feed paper strip at a constant speed on which input and output curve are obtained simultaneously.

To simulate inertia load on the output side, a load disc is mounted of which weights are clamped and the inertia can be varied.

A damper is attached to the output jack, to study the effect of damping on the output curve.

Damping is varied and its effect on output is observed.

DIMENSIONS AND WEIGHT :

Size :1.2 m.(L)x 0.6 m(W) X 1.7m (H)

Weight :Approx. 75 Kg

SERVICE REQUIRED :

440 v Ac Supply 50 Hz , Three Phase

Hydraulic Oil : 60 ltrs

SCOPE OF DELIVERY:

1. Experimental Setup
2. Instructional Manual

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