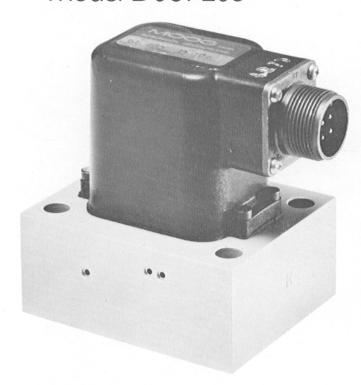
Single-stage "bifurcated" Servovalve Model D061-205



Single-stage flapper-type servovalves provide excellent performance at low cost for low power control systems. A normal four-way single-stage valve having one flapper is limited to two variable nozzle orifices. The other two orifices of the four-way orifice bridge are fixed. Thus, maximum control flow to the load is limited to one-half of the leakage flow.

The Moog "bifurcated" single-stage servovalve uses two flappers driven by a common armature. Each flapper controls the opening of two opposed nozzles. The nozzle chambers are hydraulically separated and two flexure tubes are used. The nozzles are connected in a four-active-arm orifice bridge. This arrangement increases the useful control flow available from the valve with no increase in null leakage flow.*



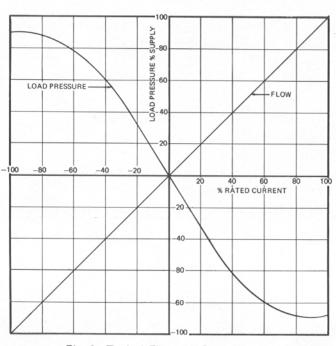


Fig. 1. Typical Flow and Pressure Gain

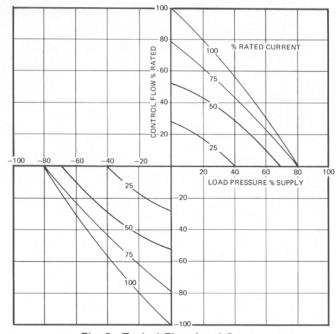


Fig. 2. Typical Flow-Load Curves

Design Features

- frictionless, flexure-tube design
- rugged construction suitable for industrial applications
- excellent dynamic response with negligible threshold
- dry torque motor
- integral 35μ nominal filter in pressure port
- integral 125 μ nominal screens in cylinder ports

Typical Performance

Supply pressure 150 to 1000 psi Supply proof pressure ... 1500 psi

Return proof pressure ... 1000 psi Threshold <0.1%

 Hysteresis
 <3%</td>

 Linearity
 <15%</td>

 Symmetry
 <10%</td>

 Null bias
 <5%</td>

Operating temperature .. 15°F to 180°F

Frequency response at

1000 psi supply...... 90° phase lag at 400 Hz
-3 db amplitude ratio

at 650 Hz

Model D061-205 Parameters

Rated Flow

at 1000 psi supply.... 0.37 gpm

Rated Current

Series coils 75 ma Parallel coils 150 ma

Resistance per coil 27 ohms ± 10%

Inductance per coil at 50 Hz and

1000 psi supply..... 0.25 henries

Null leakage flow

at 1000 psi supply ... 0.63 gpm

Supply filtration required . 10μ nominal or better

recommended

Installation Details

