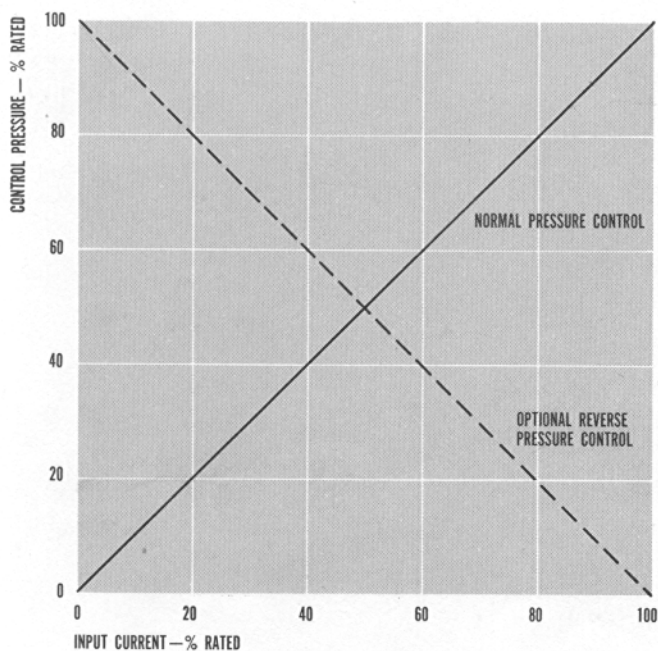


## Series 74 INDUSTRIAL PRESSURE CONTROL SERVOVALVE



SERIES 74 PRESSURE CONTROL CHARACTERISTICS

This low cost pressure control servovalve is a simple and rugged unit intended for industrial applications. It is used in fatigue test machines, loading devices and other applications where actuator force proportional to electrical signal is desired. It can also be used as an open-loop pressure regulator responsive to electrical setting.

Valve parts are carried in stock so that deliveries of small quantities to your specifications can be made within two weeks.

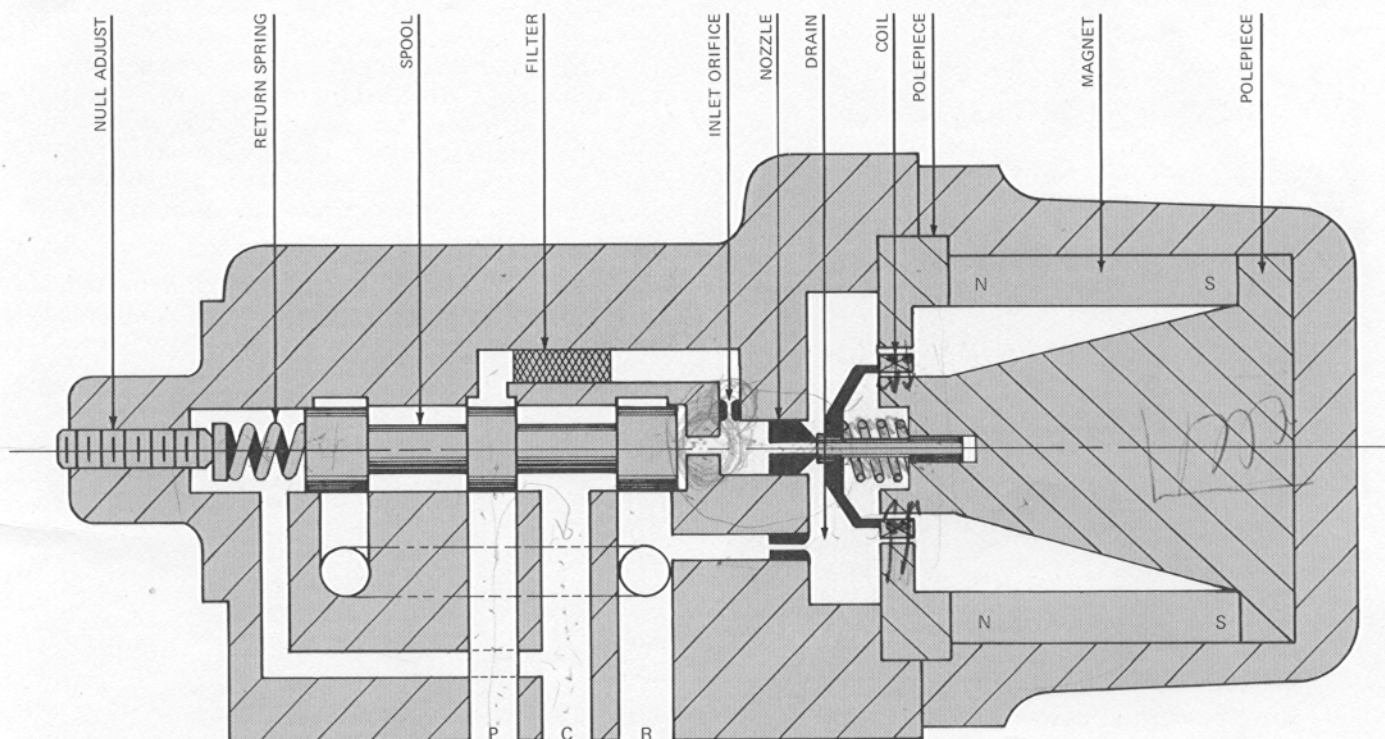
# Design Specifications

supply pressure	specify value from 500 psi to 3000 psi
fluid	state type of hydraulic fluid*
rated control pressure tolerance	specify the maximum control pressure may be from 20% to 90% of supply or 2000 psi maximum
flow capacity at 1000 psi supply	specify 1 gpm, 2.5 gpm, 5 gpm or 10 gpm
rated dc current (single coil)	specify 200 ma, 400 ma or 800 ma
pressure control characteristic	specify normal or reverse

\*Valves are normally supplied with Buna N seals suitable for most petroleum-base fluids. Alternatively, Viton A or EPR seals can be provided.

## Operation

The design features a moving voice coil with a single, self-cleaning nozzle for the pilot stage. Electrical signals cause movement of the voice coil bobbin and this produces corresponding pressure variations at the right end of the valve spool. The pressure from the servovalve is ported internally to the left end of the spool so that the spool acts as a pressure repeater. This two-stage design gives high load-flow capacity with high dynamic response.



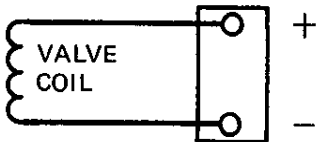
# Performance

rated control pressure tolerance (at rated supply and full rated current)	<±7% of value specified
rated control pressure variation with supply (±30% supply pressure change)	<±10% of value specified
hysteresis (non-repeatability of control pressure due to cycling electrical input)	<3% of rated current
threshold (maximum change in current to produce corresponding change in control pressure)	<2% of rated current
zero pressure shift (maximum current to hold zero control pressure when supply pressure changes ±20%)	< 3% of rated current
proof pressure (at pressure and control ports) (at return port)	150% supply 100% supply
internal leakage at 1000 psi	<1.5 cis
external leakage	none

# Application Information

valve weight	5.5 lbs.								
temperature range	+40°F to 160°F								
nominal coil resistance at 70°F	<table><tr><th>rated current</th><th>resistance</th></tr><tr><td>200 ma</td><td>71.0 Ω</td></tr><tr><td>400 ma</td><td>17.7 Ω</td></tr><tr><td>800 ma</td><td>4.4 Ω</td></tr></table>	rated current	resistance	200 ma	71.0 Ω	400 ma	17.7 Ω	800 ma	4.4 Ω
rated current	resistance								
200 ma	71.0 Ω								
400 ma	17.7 Ω								
800 ma	4.4 Ω								
control power at rated current	2.8 watts								

electrical connection  
polarity for pressure control



## Installation Details

