

Models 1710, 1750, 1754

CONTROL VALVES - EXTERNAL REGULATING PILOT

Daniel Measurement and Control offers various pilot valves for Petroleum services such as pressure reducing, back pressure, rate of flow, etc. These are small self-contained regulators. They offer a wide range of small control valves to be sold for many petroleum applications. They have many advantages such as:

1. Balanced, single seat (varying inlet pressures do not affect control pressures).
2. Complete cage assemblies for convenient repair.
3. All internal parts are 300 Series stainless steel.
4. Easily changed from one type of pilot to another merely by changing either the poppet assembly or the spring cover.

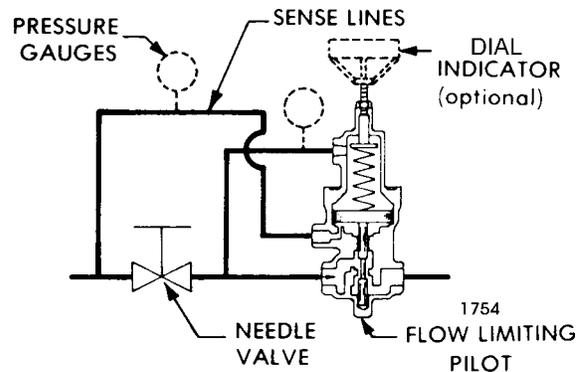
These pilot valves are made with steel bodies and working pressures up to 740 psi. High pressure steel pilot valves can also be furnished for working pressure to 1480 psi.

The 1710 Solenoid pilot valve will open against 740 psi differential and has a 1/4" port opening. There are no competitive solenoid valves on the market with this size port opening in the price range of these pilot valves.

The 1754 pilot valve offers particular advantages for small pilot plant operations. It will work on differential pressures as low as 5 psi. With a 5 psi differential, control flow rate within plus or minus 4% may be expected.

These pilot valves should adapt themselves very well to OEM applications. Listed below is the CV factor of some of the pilots along with 1750 Pilot capacities under various differentials.

External Pilot C _v Factor Model	C _v
1710 (Solenoid On-Off N.C.)	= .53
1750 (Pressure Reducing)	= 1.18
1760 (Back Pressure or Relief)	= 1.69
1770 (N.C. Differential)	= 1.69
1754 (Flow Limiting)	= 1.31



⚠ WARNING

Do not operate this instrument in excess of the specifications listed. Failure to heed this warning could result in serious injury and/or damage to the equipment.

1750 Pilot Capacity

Based on water at 60°F, flows shown are maximum valve capacities when operating under the pressure differentials indicated with pilot in wide open position:

Inlet Minus Outlet Pressure			
psi	Flow in GPM	psi	Flow in GPM
10	- 4.65	60	- 11.50
20	- 6.65	70	- 12.40
30	- 8.10	80	- 13.20
40	- 9.50	90	- 14.00

The needle valve used to create approximately 5 psi differential. Pressure gauges are used in the sense lines or a differential gauge across the sense lines.

Set pilot to maintain 5 psi differential across needle valve orifice. The higher the differential across the orifice the more sensitive the pilot.

ADVANTAGE

This pilot valve can be used over a great range of flow without creating excessive pressure drop across the needle valve orifice.

The needle valve setting can be varied to create a flow rate change if desired.

If it is desired to reset a rate of flow pilot to a predetermined flow rate, a Dial Indicator can be used. This indicator is attached to the pilot valve adjustment screw and is reset manually.

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