CARTRIDGE VALVE

SPECIFICATIONS

Air Pilot Operated Hydraulic Spool Valve.
Four Way, Directional Control or Selector Valve.

Maximum System Pressure:
Ports A, B, P, and T rated to 3,000 PSI.

Maximum Pilot Pressure (X port) 150 PSI.

Fluid temperature -40°F (-40°C) to 200°F (93.3°C)

Install Cartridge Valve using No. 471 Spanner Tool.
Valve should screw in freely to the Mount Seal.
Final tightening to 15 foot pounds torque.
Use lubricant on external oil seals and mounting threads.

OPTIONS

Pilot Port (Key X) is 1/8 NPT.
Optional Pilot Porting includes 1/4 NPT, SAE4, and SAE5.
Standard seals are Buna-N with Teflon back up rings.
Optional seals include Viton, Teflon and others.
Keys 7 & 20 are vents to atmosphere.
T Option provides 10-32 Threaded ports at these locations.

PILOT RATIO NOTES

Applies to Port 1 Only. Ports 2, 3 & 4 are balanced.

TO CALCULATE THE CORRECT PILOT RATIO VALVE
TO ORDER FOLLOW THESE STEPS:
1. Determine the MAXIMUM possible system pressure.
   Multiply X 1.1 = SYSTEM
2. Determine MINIMUM possible pilot pressure.
   Multiply X .9 = PILOT
3. Divide SYSTEM by PILOT = PILOT TO SYSTEM RATIO
4. Round up to standard available ratio.

PILOT TO SYSTEM RATIO " A " DIAMETER CARTRIDGE VALVE NO. FUNCTIONAL SYMBOL
108:1 1-1/2 (38.1) 442371083 2
131:1 1-5/8 (41.28) 443371313
183:1 1-7/8 (47.63) 446371833
277:1 2-1/4 (57.15) 447372773

108:1 1-1/2 (38.1) 442371080 3
131:1 1-5/8 (41.28) 443371310
183:1 1-7/8 (47.63) 446371830
277:1 2-1/4 (57.15) 447372770

Cavity & Housing

Cavity & Tooling C-8544 (10-4):
See Spec. Sheet 1200671

Line Mount Housings:
See Spec. Sheet 1200675 & 1202930

Panel Mount Housings & Spacers:
See Spec. Sheets 1202684 and 1202990

Cavity & Housing information found at
www.doering.com Products Housings

Doering Co. also manufactures multi function and multi station housings and manifolds.

TOOLING

1/8 (3.175) Pin Spanner Tool
Order No. 471
3/16 (4.763) Face Spanner Tool
Order No. 482

PRESSURE DROP CHART

4PS SERIES
4 Way Spool Valve, Pilot Operated. Directional Control or Selector Valve.