KEY EXPLANATION:

1. Port No. 1, System Inlet
2. Port No. 2, System Outlet
3. Poppet, Hard Stainless Steel
4. Seat passage sealing area.
5. O-Ring Seal or O-Ring Seal with Back Up Ring
6. Filter, 10 Micron, Sintered Bronze. Omitted W/ T option.
7. Vent (2 Pl.) Optional T Port Locations
8. Filter Retainer
9. Poppet and Actuator Return Spring, Stainless
10. Piston Guide Ring
11. Piston O-Ring Seal, Buna N (Also See Options)
12. Bonnet O-Ring Seal, Buna N (Also See Options)
13. 3/16" (4.763) Spanner Holes (2 Pl.)
14. 1/8 NPT Pilot Port X (Also See Options)
15. Bonnet, Aluminum Material
16. Actuator Body, Aluminum
17. Actuator Piston, Aluminum
18. Poppet Return Spring Retainer Assembly
19. Poppet Seal, TFE
20. 1/8" (3.175) Spanner Holes (4 or 6 Pl.)
21. Cartridge Seat Retaining Ring
22. Mount O-Ring Seal, Buna N (Also See Options)
23. Cartridge Mounting Threads, Stainless Steel
24. Cartridge Seat, Hard Stainless
25. Back Up Rings, Buna N or Urethane (See Options)
26. O-Ring Seal, Buna N (Also See Options)
27. Spring (Used on valves with 2-1/4" "A" Diameter)
28. Orifice Options, Ø.015 or Ø.031.
    Call for information and restrictions.

SPECIFICATIONS:

Pilot operated two way cartridge valve. Normally closed. Pilot to open passage between ports one and two. Valve will not hold pressure from 2 to 1. Use No. 1 port as pressure inlet port.

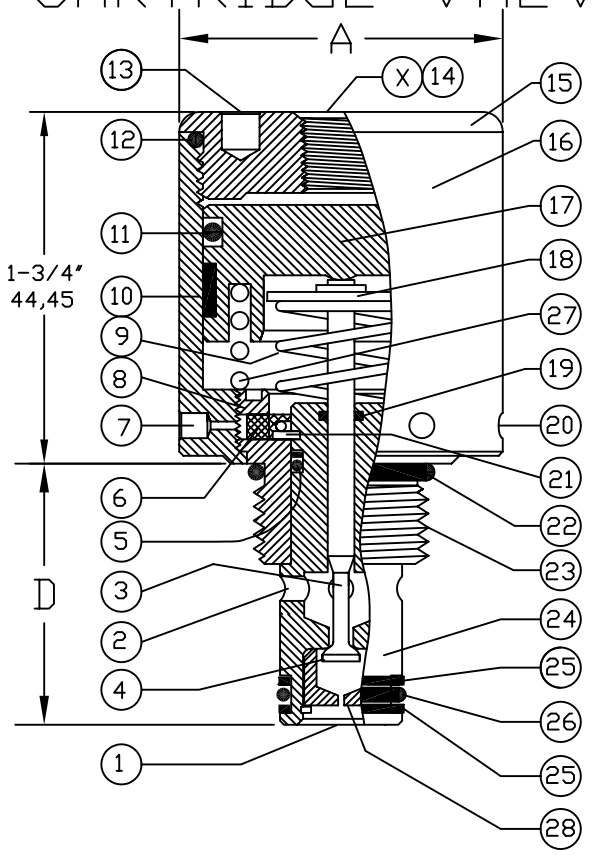
Pressure rating in steel Housing, 8502 Cavity, 7,500 PSIG
Pressure rating in steel Housing, 8542 Cavity, 5,000 PSIG
Pilot Pressure Range, 50 PSI Min. to 150 PSI Max.
Fluid temperature -45°F, (42.7°C) to 200°F, (93.3°C)
Install Cartridge Valve using No. 471 Spanner Tool.
Valve should screw in freely to the Mount Seal.
Final tightening to 15 foot pounds torque.
Use lubricant on external oil seals and mounting threads.

PILOT RATIO NOTES:

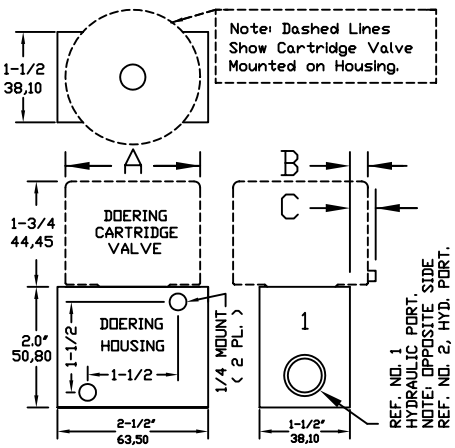
TO CALCULATE THE CORRECT PILOT RATIO VALVE TO ORDER FOLLOW THESE STEPS:

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.

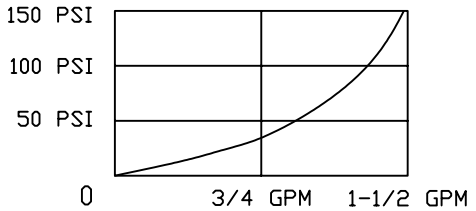
CARTRIDGE VALVE



HOUSING



Standard Housing is 3/8 NPT, -2 is 1/4 NPT, -6 is SAE6.
Standard Housing Material is Aluminum.
For Stainless add -S or -2S or -6S to Housing No.



FLOW AND PRESSURE DROP CHART. $C_V = 0.1$

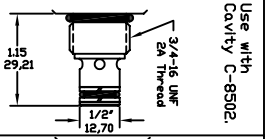
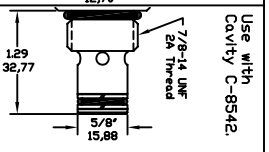
FLOW and PRESSURE DROP Chart indicates U.S. G.P.M. All flow performance data based on tests using fluid at a specific gravity of .85 and a viscosity of 150 S.U.S. at a temperature of 100°F.

STANDARD OPTIONS

Pilot Port (Key X) 1/8 NPT. Optional SAE4 Available.
Seals: Buna N, Viton or Teflon. Others please specify.
T Option: 10-32 Ports at Key 7 & 20, Random 360° Pos.
Seat (Key 4) Hard Stainless. Optional Soft Available.

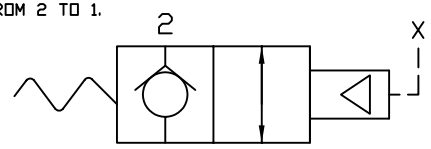
TOOLING

* Cavity Form Tools: FT+ cavity#
* 1/8 (3.175) Pin Spanner Tool Order No. 471, Ref. Key No. 20
* 3/16 (4.763) Face Spanner Tool Order No. 482, Ref. Key No. 13

PILOT TO SYSTEM RATIO	" A " DIAMETER		" B " MAXIMUM		" C " MAXIMUM APPLICABLE TO T OPTION ONLY		CARTRIDGE VALVE NO.	HOUSING BODY NO.	" D " SUB SURFACE DETAIL
100:1	1-1/2	38,10	NOT APPLICABLE		.15	3,81	822041001	S8502 - OR - S8502-2 - OR - S8502-6	
120:1	1-5/8	41,28	.06	1,53	.21	5,34	823041201		
168:1	1-7/8	47,63	.19	4,83	.34	8,64	826041681		
255:1	2-1/4	57,15	.38	9,65	.53	13,46	827042551		
100:1	1-1/2	38,10	NOT APPLICABLE		.15	3,81	842041001	S8542 - OR - S8542-2 - OR - S8542-6	
120:1	1-5/8	41,28	.06	1,53	.21	5,34	843041201		
168:1	1-7/8	47,63	.19	4,83	.34	8,64	846041681		
255:1	2-1/4	57,15	.38	9,65	.53	13,46	847042551		

2PB SERIES

IN CLOSED POSITION, VALVE DOES NOT FREE FLOW FROM 2 TO 1.



2PB N/C

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