

KEY EXPLANATION:

1. Port No. 1, System
2. Port No. 2, System
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.
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)

SPECIFICATIONS:

Pilot operated two way cartridge valve. Normally closed. Pilot to open passage between ports one and two.

No. 1 port is the preferred pressure holding port.

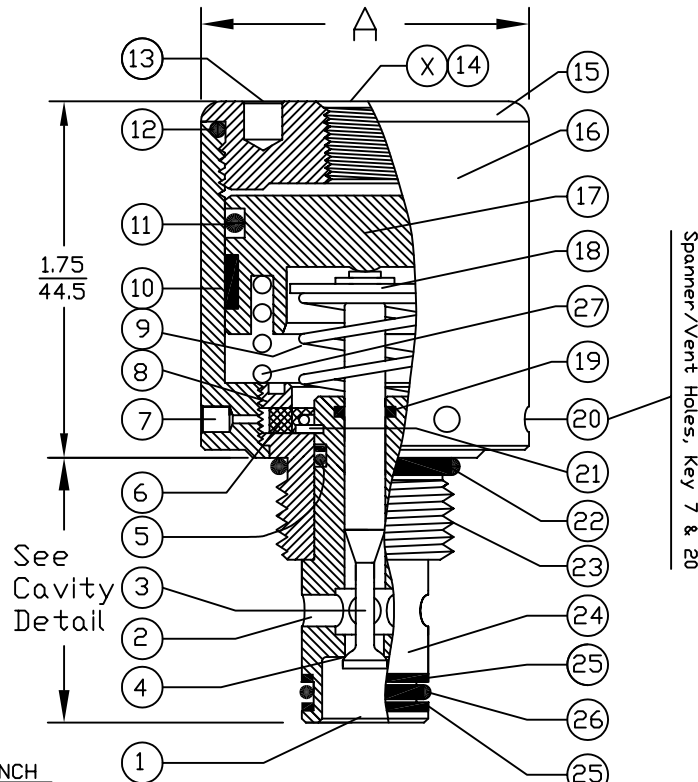
Maximum pressure 5,000 PSI, Cavity C-8502
Cavity C-8542, 5,000 PSI Port 1, 3,000 PSI Port 2
Pilot Pressure Range, 50 PSI Min. to 150 PSI Max.
Fluid temperature -45°F, (42.7°C) to 200°F, (93.3°C)

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



INCH
METRIC

For Kel-F Soft Seat, modify Part No. IE: 82K#####1

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. For Kel-F Soft Seat,
Insert letter K after second digit of part number.

TOOLING

*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

Cavity & Housing

For 82#####1 Valve:
Cavity C-8502 (8-2):
See Spec. Sheet 1200630

Line Mount Housings:
See Spec. Sheets
1200672 and 1203123

Panel Mount Housings:
See Spec. Sheets
1202981 and 1202990

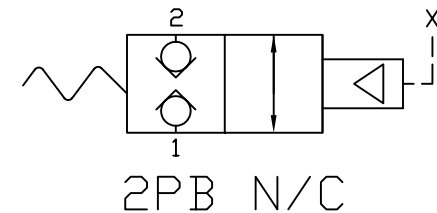
For 84#####1 Valve:
Cavity C-8542 (10-2):
See Spec. Sheet 1200621

Line Mount Housings:
See Spec. Sheets
1200674 and 1201455

Panel Mount Housings:
See Spec. Sheets
1202982 and 1202990

PILOT TO SYSTEM RATIO	" A " Diameter		Order Valve No.	Fits Cavity:	PRESSURE DROP CHART $C_v = 0.4$ Hard Seat Only.
	Inch	Metric			
40:1	1-1/2	38.10	822270401	C-8502	
49:1	1-5/8	41.28	823270491	(8-2)	
69:1	1-7/8	47.63	826270691	3/4-16 Thd.	
104:1	2-1/4	57.15	827271041		
40:1	1-1/2	38.10	842270401	C-8542	
49:1	1-5/8	41.28	843270491	(10-2)	
69:1	1-7/8	47.63	846270691	7/8-14 Thd.	
104:1	2-1/4	57.15	847271041		

2PB SERIES



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