

KEY EXPLANATION:

1. Port No. 1 (System)
2. Port No. 2 (System)
3. Poppet, Hard Stainless Steel
4. Seat to Poppet sealing area, hard seat.
5. O-Ring Seal, Buna N (Also See Options)
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 UHMW material
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, Teflon
26. O-Ring Seal, Buna N (Also See Options)
27. Spring (Used on valves = "A" Dia. 1-7/8 & 2-1/4")

SPECIFICATIONS:

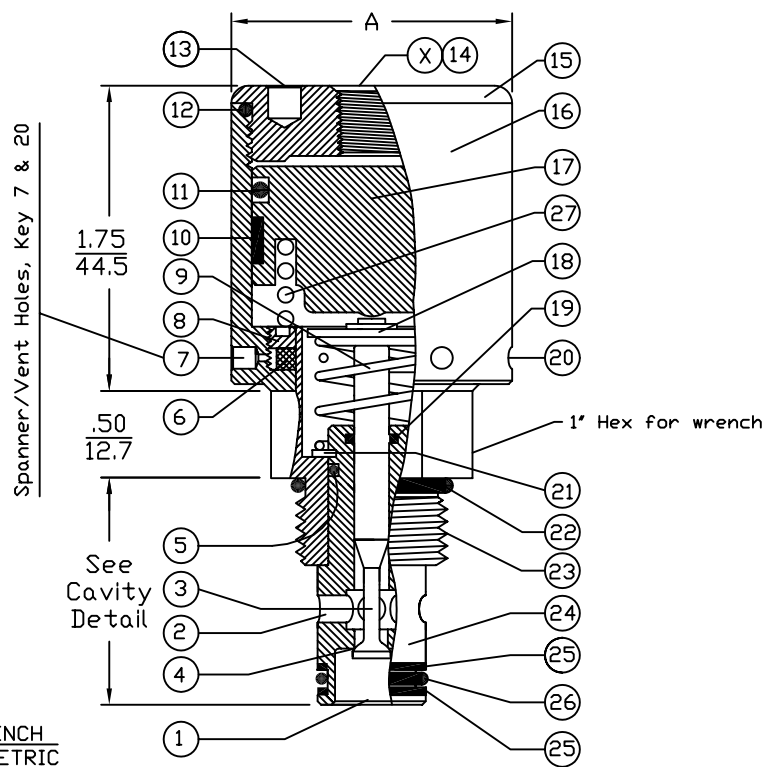
Pilot operated two way cartridge valve. Normally closed. Pilot to open passage between ports one and two.
 No. 1 port is the preferred pressure holding port.
 Maximum pressure 5,000 PSI, Cavity C-8502
 Cavity C-8542, 5,000 PSI Port 1, 3,000 PSI Port 2
 Pilot Pressure Range, 50 PSI Min. to 150 PSI Max.
 Fluid temperature -45°F, (42.7°C) to 200°F, (93.3°C)
 Install Cartridge Valve using 1" wrench.
 Valve should screw in freely to the Mount Seal.
 Torque to 20 foot pounds.
 Use lubricant on external oil seals and mounting threads.

PILOT RATIO NOTES:

TO CALCULATE THE CORRECT PILOT RATIO VALVE,
 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



For Kel-F Soft Seat, modify Part No. IE: 82HK#####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. Optional Soft Available.
 Add letter K after H to order Kel-F BI soft seat.

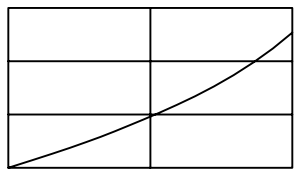
TOOLING

- * 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 82H#####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 84H#####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

SYSTEM RATIO	" A " Diameter		Order Valve No.	Fits Cavity:	Flow & Pressure Drop. Reduce Values 50% with K (Soft) Seat.
	Inch	Metric			
40:1	1-1/2	38.10	82H2270401	C-8502 (8-2) 3/4-16 Thd.	Hard Seat Effective Diameter .158" Hard Seat estimated Cv 0.4 150 PSI 100 PSI 50 PSI  0 2-1/2 GPM 5 GPM
49:1	1-5/8	41.28	82H3270491		
69:1	1-7/8	47.63	82H6270691		
104:1	2-1/4	57.15	82H7271041		
40:1	1-1/2	38.10	84H2270401	C-8542 (10-2) 7/8-14 Thd.	
49:1	1-5/8	41.28	84H3270491		
69:1	1-7/8	47.63	84H6270691		
104:1	2-1/4	57.15	84H7271041		

2PB SERIES

