

KEY EXPLANATION:

1. Port No. 1 (System)
2. Port No. 2 (System)
3. Poppet, Hard Stainless Steel
4. Seal passage sealing area.
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")
28. Orifice Options, Ø.015 or Ø.031.
Orifice includes retaining ring.

SPECIFICATIONS:

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

No. 1 port is the preferred pressure holding port.

Working pressure Ratings: Proof Pressure add 50%.

82H--- Valve, 7,500 PSI Port 1, 5,000 PSI Port 2

84H--- Valve, 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)

Valve should screw in freely to the Mount Seal.

Torque to 20 foot pounds.

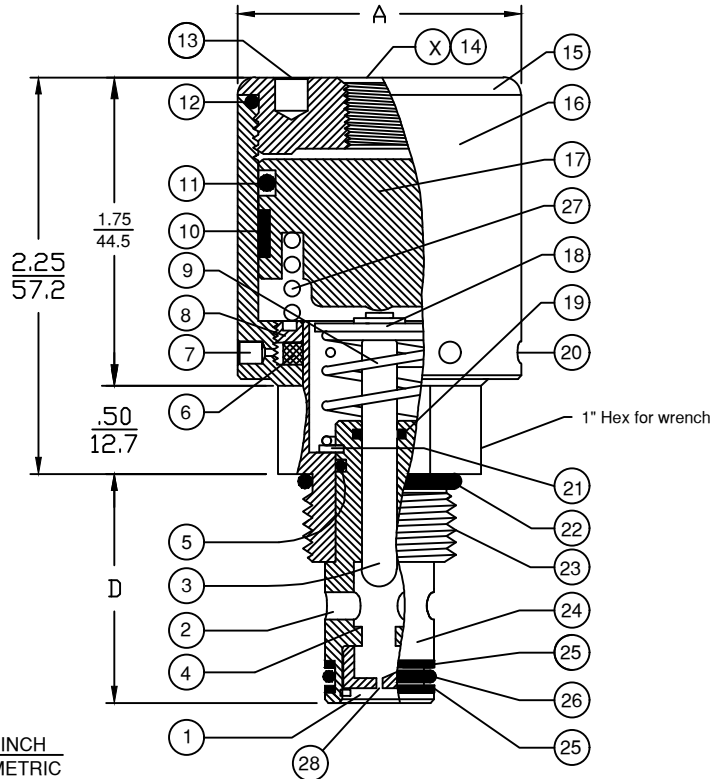
Use lubricant on external oil seals and mounting threads.

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



INCH
METRIC

STANDARD OPTIONS

Pilot Port (Key X) 1/8 NPT. Optional SAE4 Available.
Standard Seals are Buna-N with Teflon Back Up.
Please call for other seal options.
T Option: 10-32 Ports at Key 7 & 20, Random 360° Pos.

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

Cavity & Housing

For 82 Series 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 Series Valve:

Cavity C-8542 (10-2):
See Spec. Sheet 1200621

Line Mount Housings:

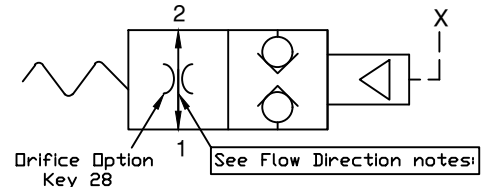
See Spec. Sheets
1200674 and 1201455

Panel Mount Housings:

See Spec. Sheets
1202982 and 1202990

Order Valve No.	Pilot To System Ratio:	" A " Diameter	Cavity & Housing	Pressure Drop Chart Without Orifice Only.	$C_V = 0.5$
82H2270400	40:1	1.50 38.1	See: For 82 Series:		
82H3270490	49:1	1.62 41.2			
82H6270690	69:1	1.87 47.5			
82H7271040	104:1	2.25 57.2			
84H2270400	40:1	1.50 38.1	See: For 84 Series:		
84H3270490	49:1	1.62 41.2			
84H6270690	69:1	1.87 47.5			
84H7271040	104:1	2.25 57.2			

2PB N/O



Without optional ORIFICE, flow is bi-directional.
With Orifice, flow from Port 1 to Port 2 Only.

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