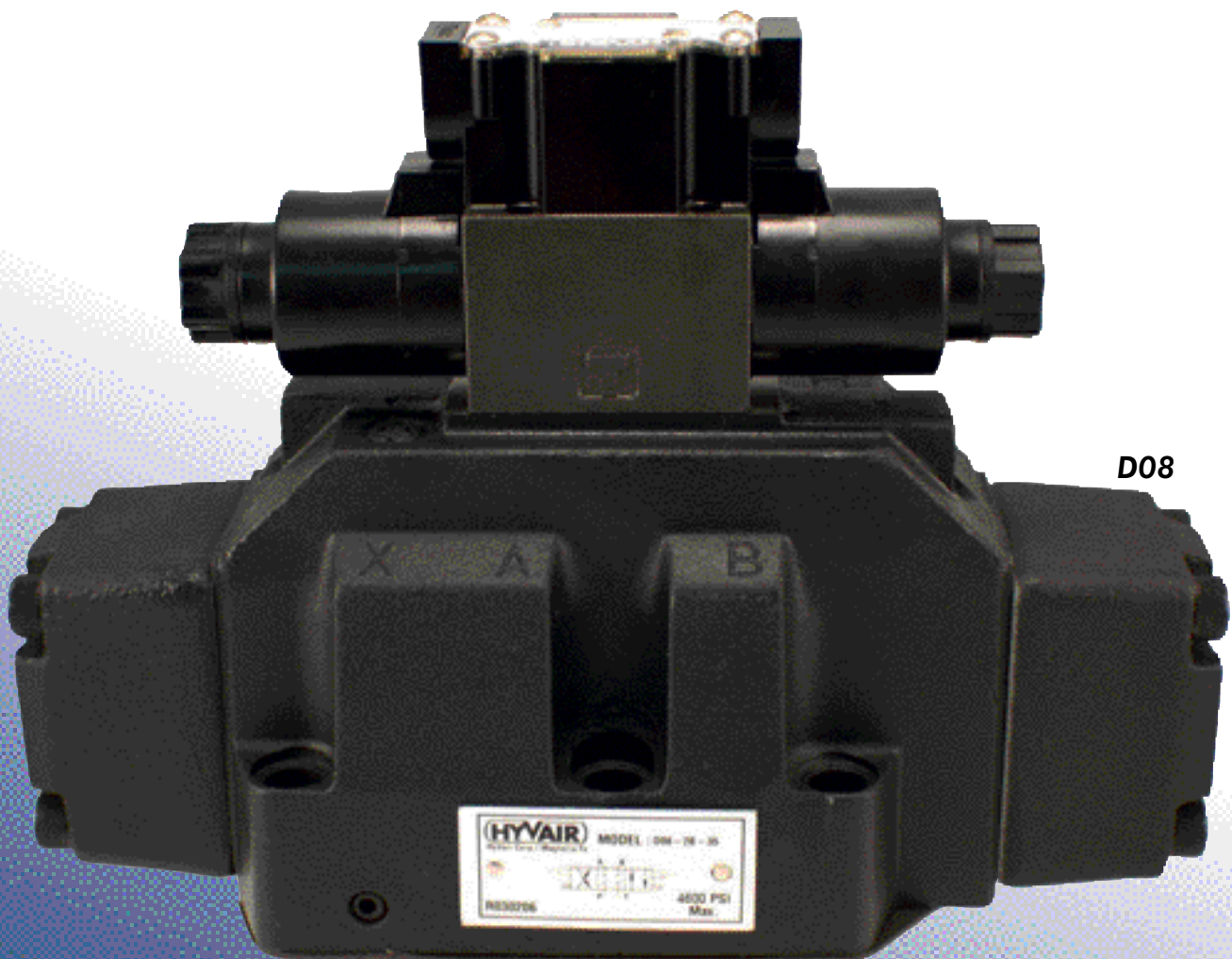




D08

Series 35

Solenoid Pilot Operated Directional Valves

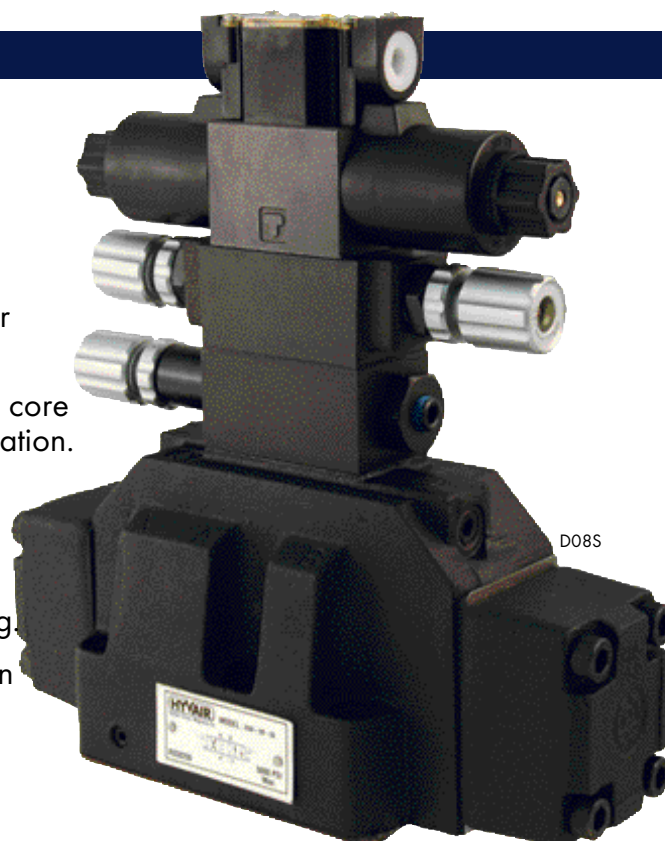


D08

GENERAL FEATURES

STANDARD FEATURES

- **High Pressure/ High Flow:** 158gpm (600lpm)/ 4641psi (320bar)
- **Pilot Operation:** Main spool controlled by D03 solenoid pilot valve- allows for addition of modular valves to reduce shifting shock.
- **Oil Immersed, Quiet Solenoid Design:** Moving core immersed in hydraulic oil provides quiet pilot operation.
- **Wiring:** Electrical box with indicator lights and terminal strip connection standard. DIN coils available and provided with DIN connector.
- **Maintenance:** Plug-in coils provide easy changing.
- **High Reliability:** Valve designed to last 20 million spool shifts under proper use.

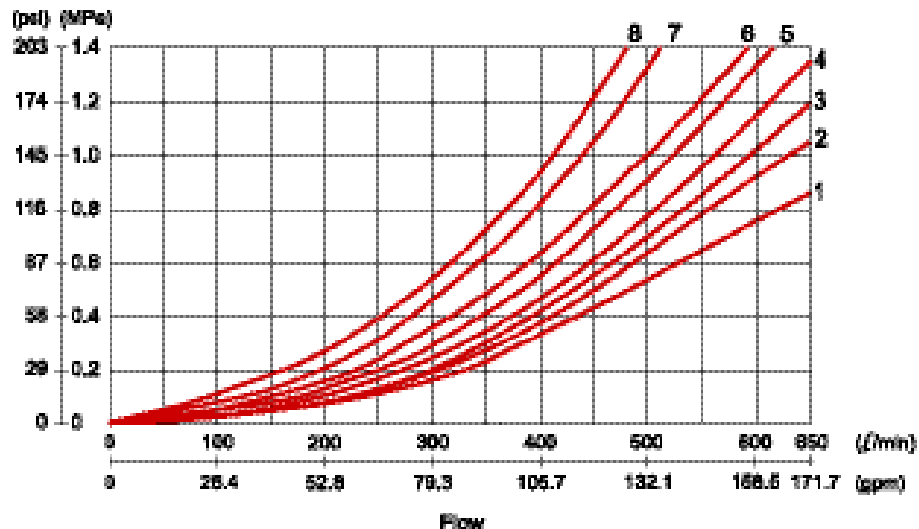


TECHNICAL DATA

Nominal Flow Rates: @ 4641 psi	158 gpm (600 lpm)
@ 1000 psi	100 gpm (378 lpm)
Maximum Operating Pressure: ports P, A, B	4641 psi (320 bar)
*port T-Including Surges	2000 psi (140 bar)
Internal Leakage @ 3000 psi	6 cu-in/ min (98 ml/ min)
Maximum Cycle Rate	150 cycles/ min
Mounting Surface: NFPA	T3.5.1.MR-D08
ISO	ISO 4401- 08
Weight: Single Solenoid	29 lbs (13.1 kg)
Double Solenoid	30 lbs (13.5 kg)
Operating Conditions: Working Temperature	40 - 160°F (5 - 70°C)
Operating Viscosity	80 - 300 SUS (17.65 cSt)
Maximum Start-up Viscosity	1500 SUS (315 cSt)
Filtration	25 micron or less, (ISO 18/15)
Recommended Fluids	Petroleum Based Fluids- ISO VG32-68, Most Vegetable Oils

*3000 psi available - specify external drain

PRESSURE DROP CURVES



For continuous flow conditions or high cycling applications, a recommended max. flow rating is: 1/2 x maximum flow rating.

Standard 115 VAC Model Codes	Symbol	Valve Spool Type	Description	Max. operating pressure psi (bar)	Max. flow gpm (lpm)	Flow Path				
						P→A	P→B	A→T	B→T	P→T
D08S-1A-115A-35 (Pilot Valve D03S-1A-115A-35)		1A	Spring Centered; All Ports Blocked/ Hydraulic Offset (Closed in Transition)	4600 (320)	75 (283)	1	1	1	3	
D08S-2B-115A-35 (Pilot Valve D03S-2F-115A-35)		2B	Spring Centered: All Ports Blocked	4600 (320)	75 (283)	1	1	1	3	
D08S-2C-115A-ED-35 (Pilot Valve D03S-2F-115A-35)		2C	Spring Centered: P to T, A & B Blocked	4600 (320)	65 (283)	3	1	2	4	7
D08S-2F-115A-35 (Pilot Valve D03S-2F-115A-35)		2F	Spring Centered: P to Blocked, A & B to T	4600 (320)	75 (283)	2	2	3	5	
D08S-2H-115A-ED-35 (Pilot Valve D03S-2F-115A-35)		2H	Spring Centered: All Ports Open	4600 (320)	75 (283)	4	4	3	4	3
D08S-3A-115A-35 (Pilot Valve D03S-3A-115A-35)		3A	Spring Centered; All Ports Blocked/ Hydraulic Detented (Closed in Transition)	4600 (320)	75 (283)	1	1	1	3	

Maximum flows may be increased by 30% (except spool 2C) if 250 psi pilot pressure is maintained.

External draining may be required where high tank line pressures exist (high flow)- the differential pressure between pilot pressure and back pressure at tank port should always be 70 psi minimum

Pilot/ Drain Configurations

Spool Codes A, B, F Supplied Internal Pilot & Internal Drain Standard

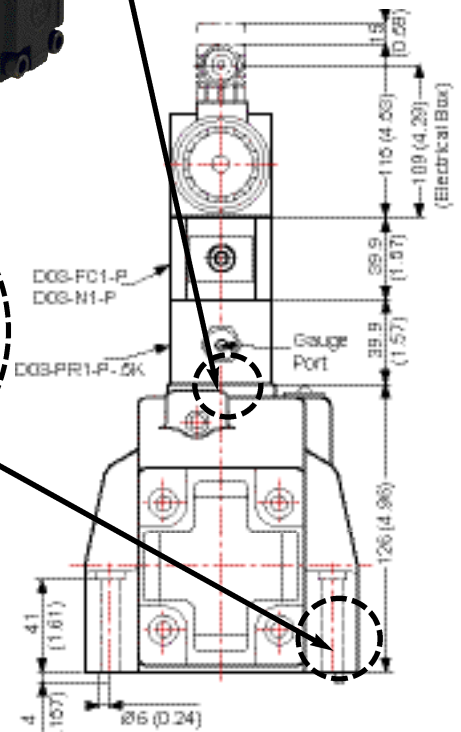
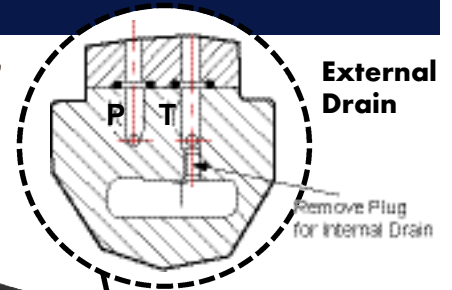
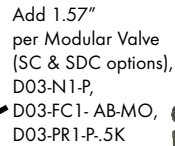
Spool Codes C and H Supplied Internal Pilot & Internal Drain Standard

⇒ 70 psi back-pressure check provided in pressure port to provide shifting pressure.

External Drain- Specify "ED" Suffix External Pilot- Specify "EP" suffix

Only use Hyvair plugs with short insertion depth.

Units: mm (inches)

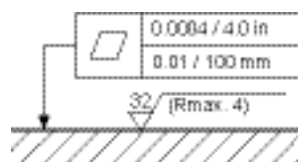


Single Valve Fastening:

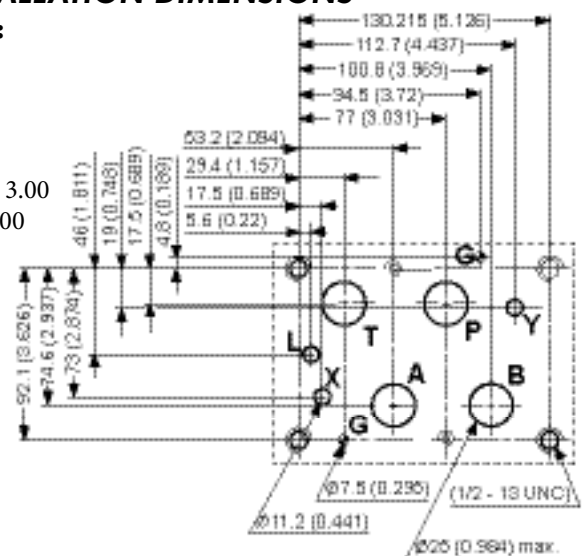
6 Bolts M12 x 60
50.9 ft-lbs (69 Nm)

○ **Rings:** (metric)

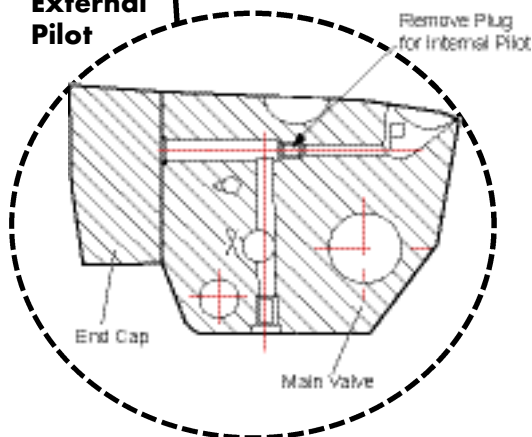
4 O-rings type 27.00 x 3.00
2 O-rings type 19.00 x 3.00



Required Surface Finish of Interface

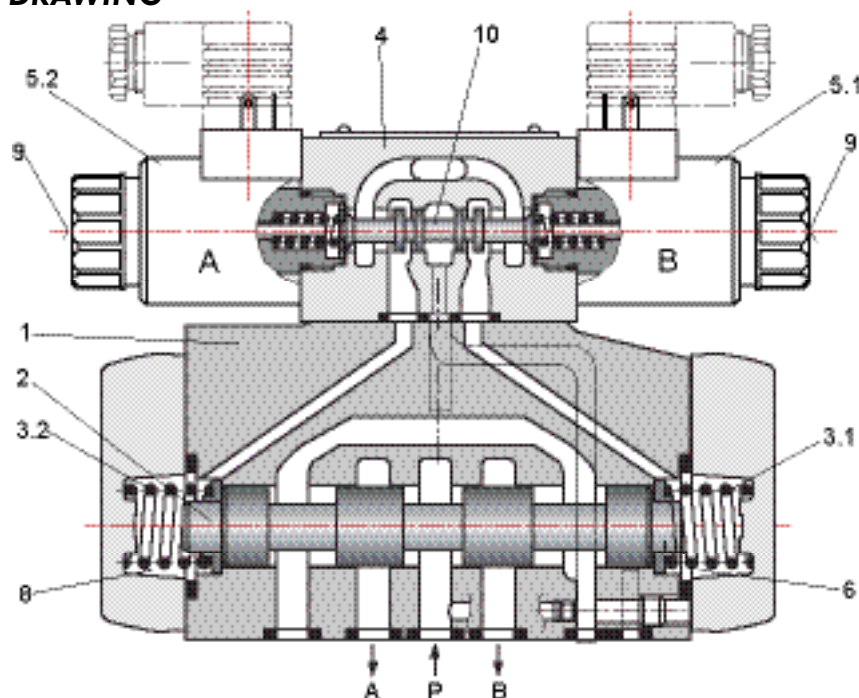


External Pilot



CROSS SECTION

CROSS SECTION DRAWING

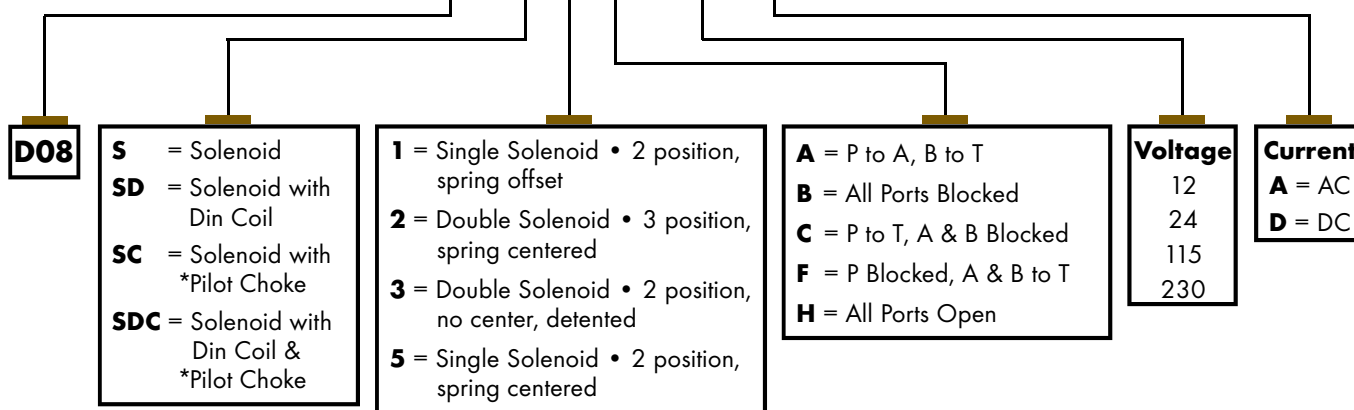


1) Main Valve with Housing	3.2) Return Spring	5.2) Solenoid	9) Manual Override
2) Main Control Spool	4) Pilot Valve	6) Spring Chamber	9) Manual Override
3.1) Return Spring	5.1) Solenoid	8) Spring Chamber	10) Pilot Spool

ORDERING INFORMATION

ORDERING EXAMPLE

D08 S-2 B- 115 A - Options - 35



*Pilot choke valve, (D03FC1-AB-MO- meter out flow control), provides softer shifting.

Also consider additionally using D03PR1-P-.5K pressure reducing valve if system pressure is above 1,000 psi. (See dimensional data)

Options:

"EP" suffix for External Pilot (x-port connection) "ED" suffix for External Drain (y-port connection)

At least one of these options must be used on C & H spools unless Internal Pre Load Check (standard) is used.