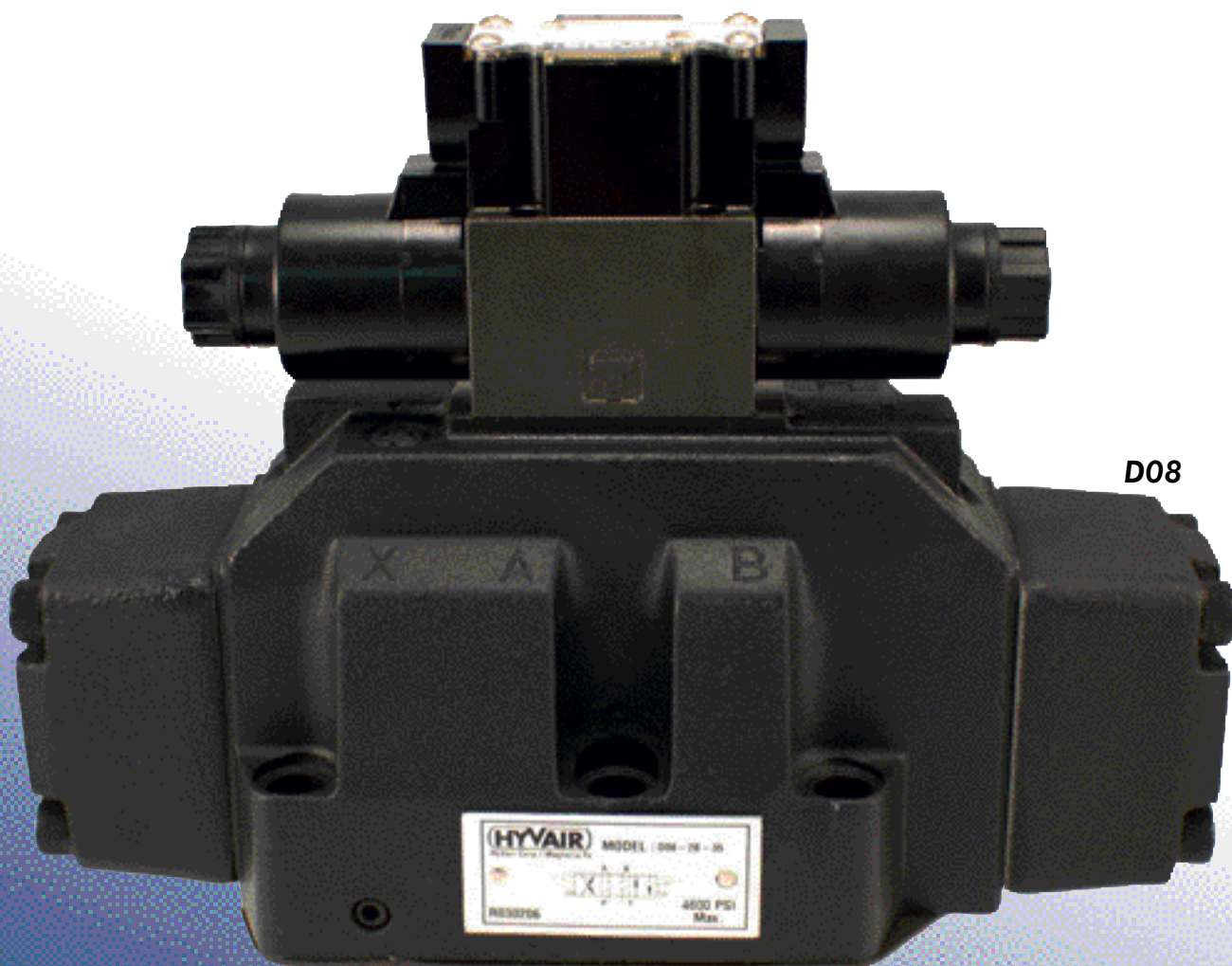




**D08**

Series 35

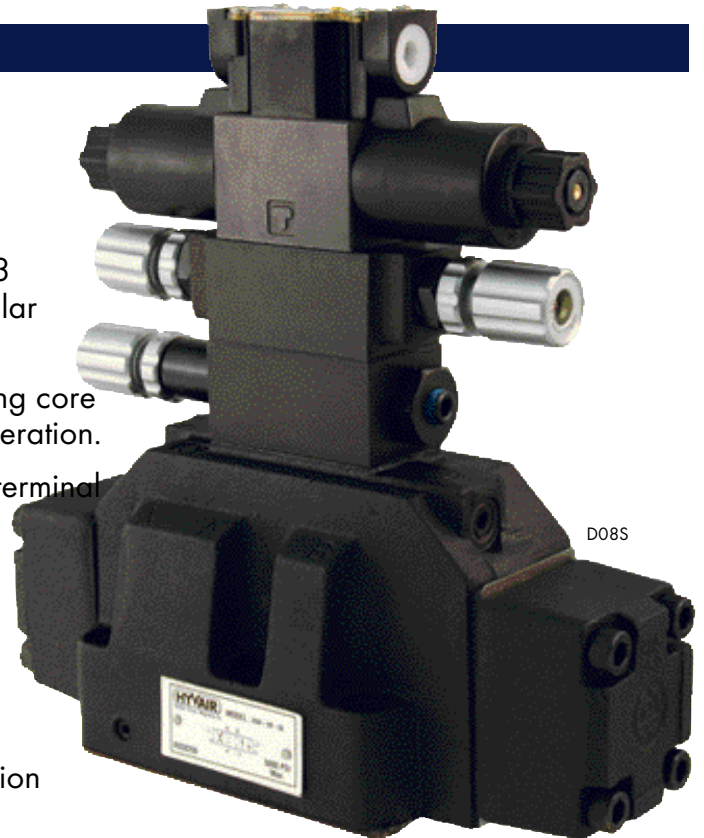
Solenoid Pilot Operated Directional Valves



D08

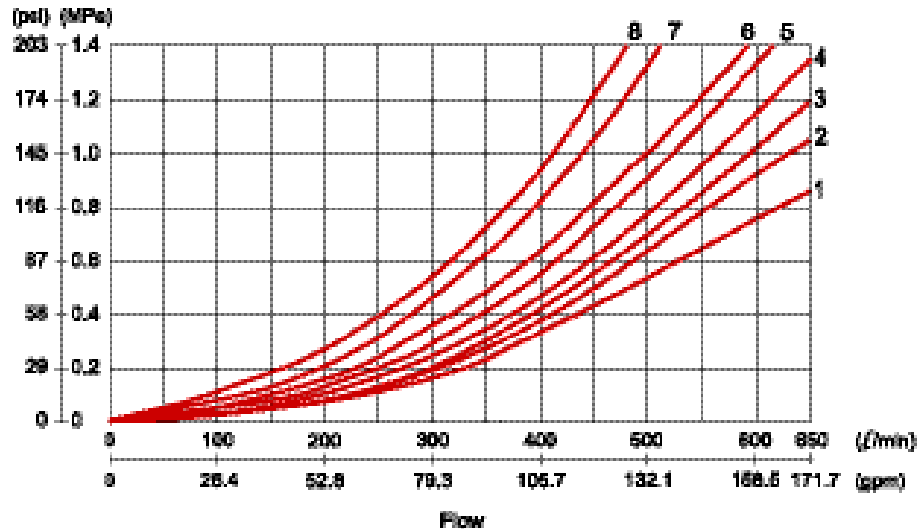
**GENERAL FEATURES**
**STANDARD FEATURES**

- **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. AC DIN connectors supplied with indicator lights at no extra charge.
- **Maintenance:** Indicator lamps to diagnose connection; Plug-in coils provide easy changing.
- **High Reliability:** Valve designed to last 20 million spool shifts under proper use.


**TECHNICAL DATA**

<b>Nominal Flow Rates:</b> @ 4641 psi	158 gpm (600 lpm)
@ 1000 psi	100 gpm (378 lpm)
<b>Maximum Operating Pressure:</b> ports P, A, B	4641 psi (320 bar)
*port T-Including Surges	2000 psi (140 bar)
<b>Internal Leakage @ 3000 psi</b>	6 cu-in/ min (98 ml/ min)
<b>Maximum Cycle Rate</b>	150 cycles/ min
<b>Mounting Surface: NFPA</b>	T3.5.1.MR-D08
<b>ISO</b>	ISO 4401- 08
<b>Weight: Single Solenoid</b>	29 lbs (13.1 kg)
<b>Double Solenoid</b>	30 lbs (13.5 kg)
<b>Operating Conditions:</b> <b>Working Temperature</b>	40 - 160°F (5 - 70°C)
<b>Operating Viscosity</b>	80 - 300 SUS (17 65 cSt)
<b>Maximum Start-up Viscosity</b>	1500 SUS (315 cSt)
<b>Filtration</b>	25 micron or less, (ISO 18/15)
<b>Recommended Fluids</b>	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)		<b>1A</b>	Spring Centered; All Ports Blocked/ Hydraulic Offset (Closed in Transition)	<b>4600</b> (320)	<b>75</b> (283)	1	1	1	3	
D08S-2B-115A-35 (Pilot Valve D03S-2F-115A-35)		<b>2B</b>	Spring Centered: All Ports Blocked	<b>4600</b> (320)	<b>75</b> (283)	1	1	1	3	
D08S-2C-115A-ED-35 (Pilot Valve D03S-2F-115A-35)		<b>2C</b>	Spring Centered: P to T, A & B Blocked	<b>4600</b> (320)	<b>65</b> (283)	3	1	2	4	7
D08S-2F-115A-35 (Pilot Valve D03S-2F-115A-35)		<b>2F</b>	Spring Centered: P to Blocked, A & B to T	<b>4600</b> (320)	<b>75</b> (283)	2	2	3	5	
D08S-2H-115A-ED-35 (Pilot Valve D03S-2F-115A-35)		<b>2H</b>	Spring Centered: All Ports Open	<b>4600</b> (320)	<b>75</b> (283)	4	4	3	4	3
D08S-3A-115A-35 (Pilot Valve D03S-3A-115A-35)		<b>3A</b>	Spring Centered: All Ports Blocked/ Hydraulic Detented (Closed in Transition)	<b>4600</b> (320)	<b>75</b> (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.

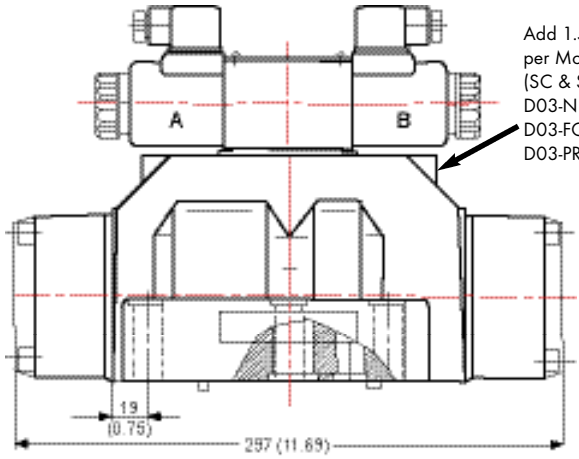
External Drain- Specify "ED" Suffix External Pilot- Specify "EP" suffix

Only use Hyvair plugs with short insertion depth.

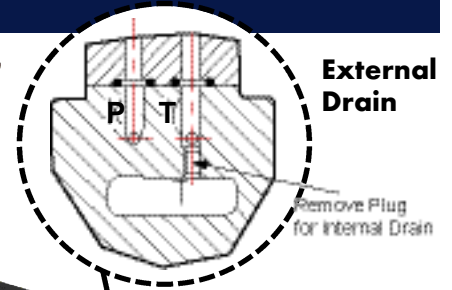
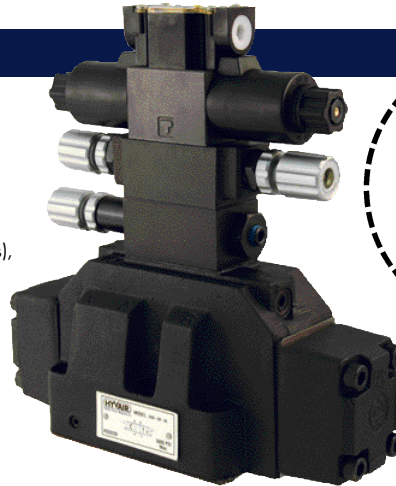
### DIMENSIONS

Units: mm (inches)

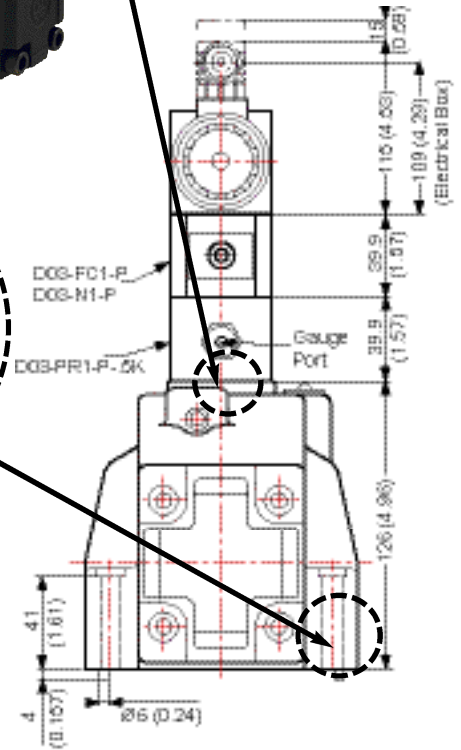
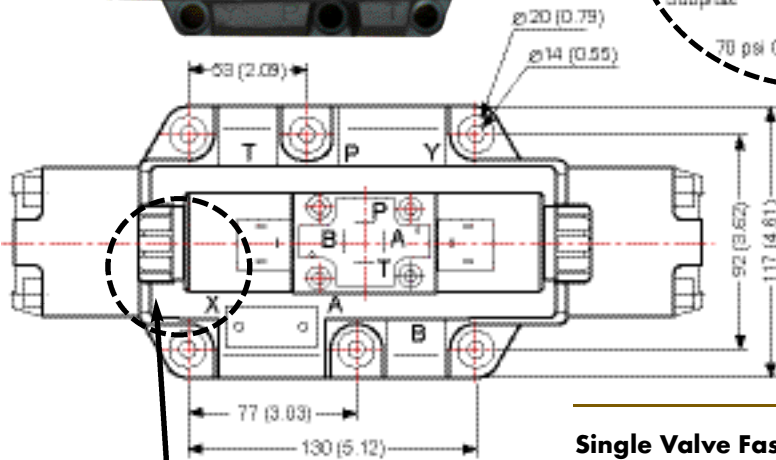
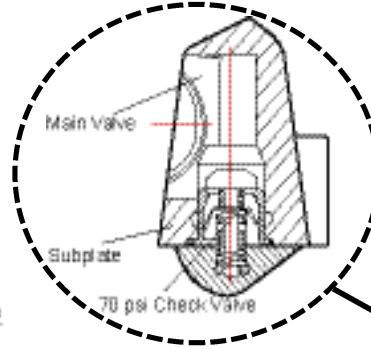
### D08 - DIMENSIONAL DRAWING



Add 1.57" per Modular Valve (SC & SDC options), D03-N1-P, D03-FC1-AB-MO, D03-PR1-P-5K



**Pre Load Check**  
(Spools C & H Only)



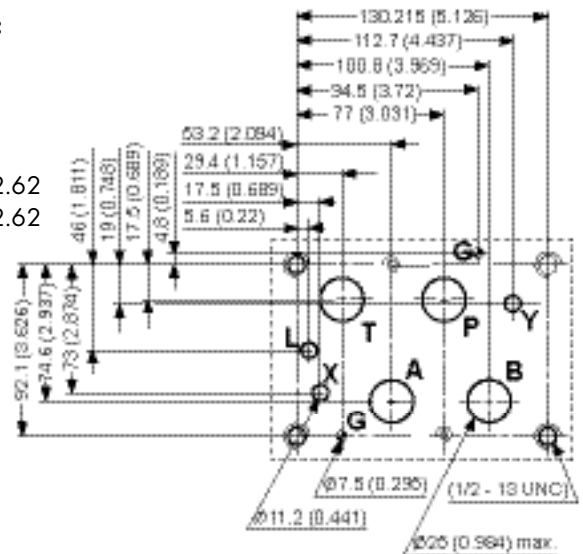
### INSTALLATION DIMENSIONS

**Single Valve Fastening:**

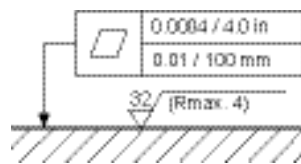
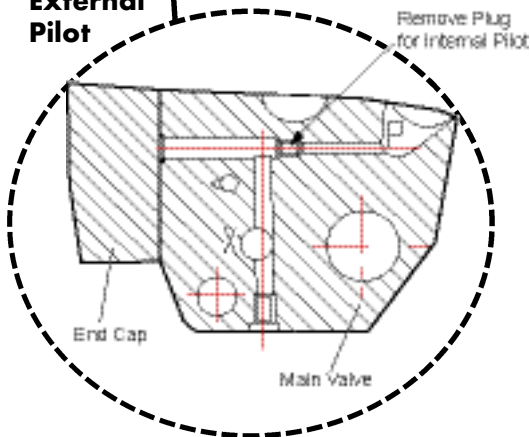
- 6 Bolts M12 x 60
- 50.9 ft-lbs (69 Nm)

**O Rings: (metric)**

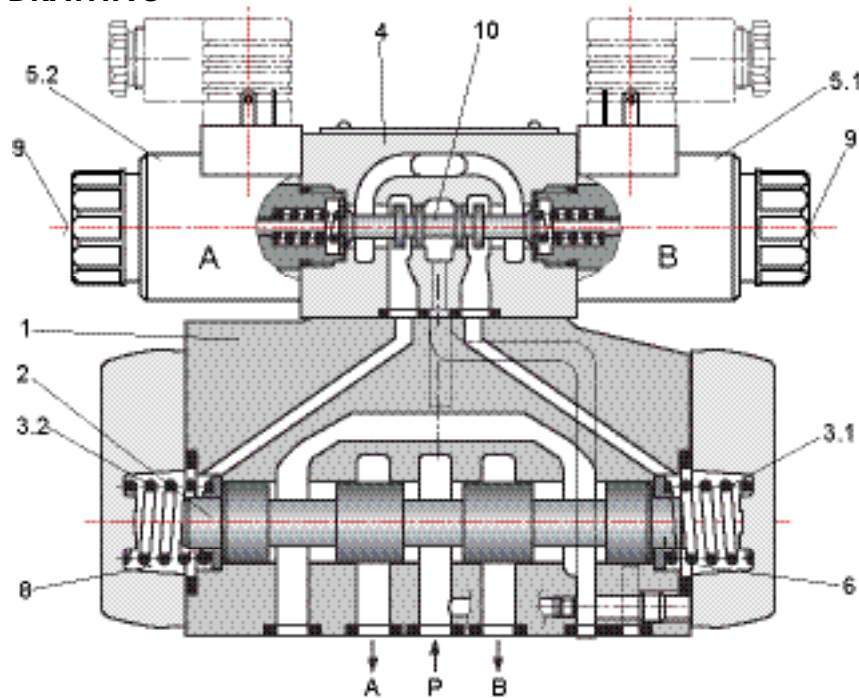
- 4 O-rings type 29.82 x 2.62
- 2 O-rings type 20.29 x 2.62



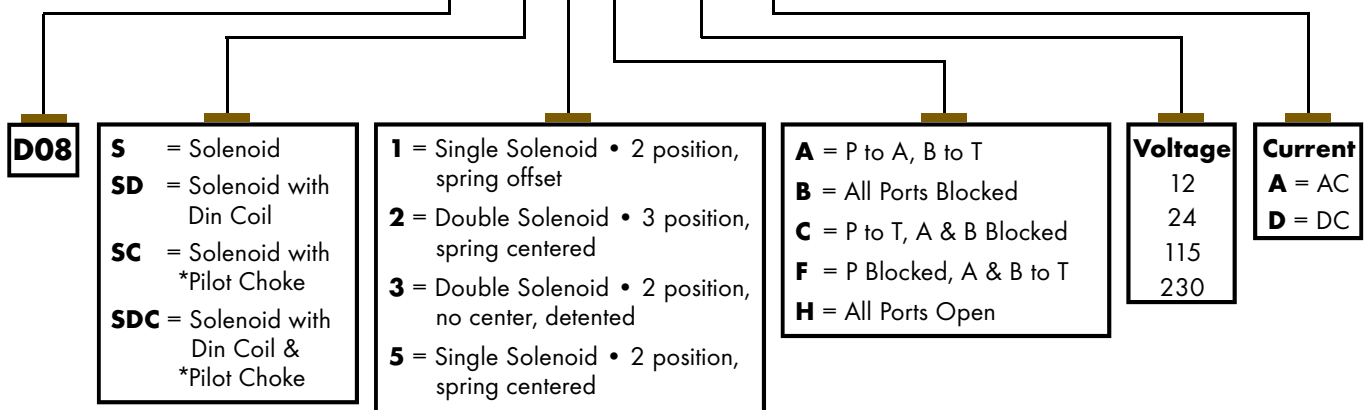
**External Pilot**



Required Surface Finish of Interface

**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.