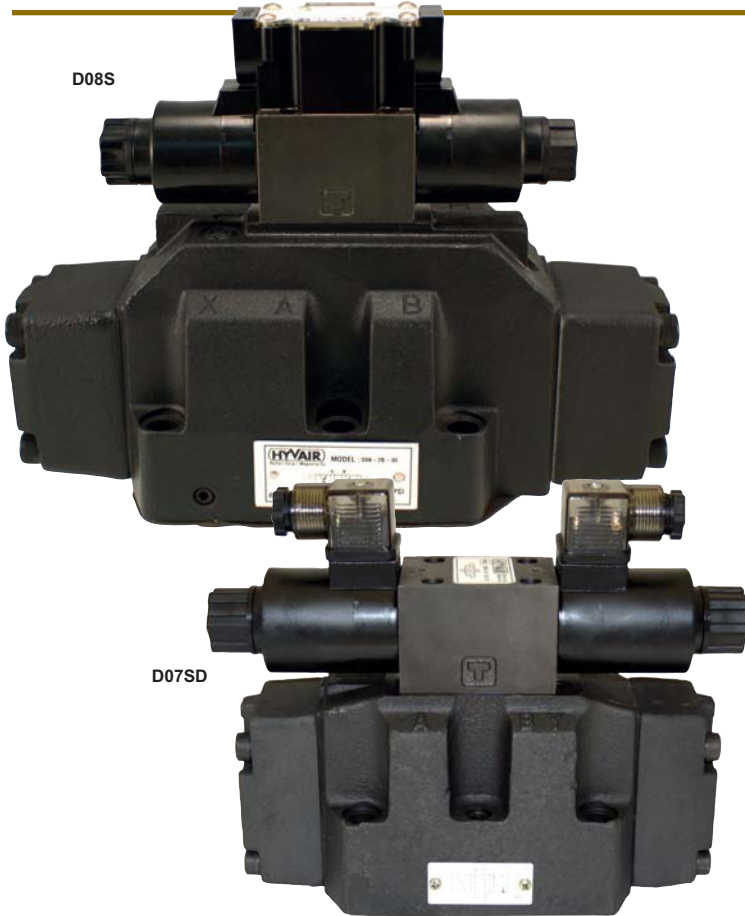


SOLENOID VALVES

D07 & D08 SERIES 35- SOLENOID VALVES



NFPA SIZE: D07 & D08

Features

- High Pressure/ High Flow:** 65 gpm/ 4500 psi
- 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.

Specifications

Size	D08	
Nominal Flow Rates	@ 4500 psi	75 gpm (284 lpm)
	@ 1000 psi	100 gpm (378 lpm)
Maximum Operating Pressure	P, A, B, Ports	4500 psi (315 bar)
	*T Port- 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.MR1-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)
	Max. 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

*3,000 psi available- specify external drain.



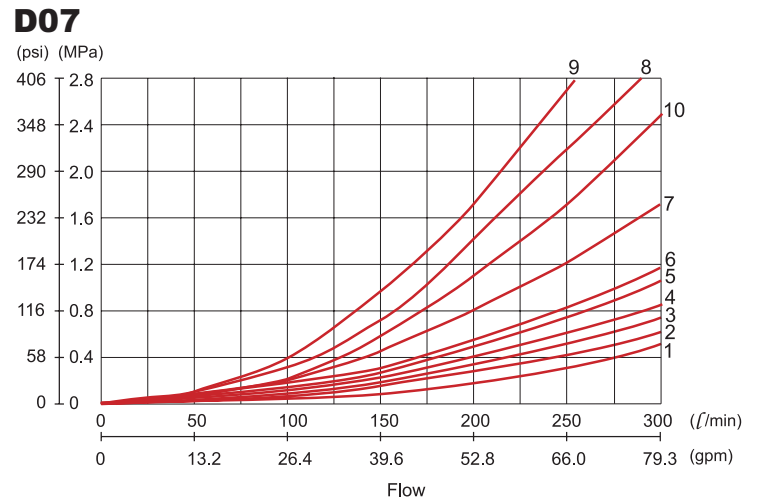
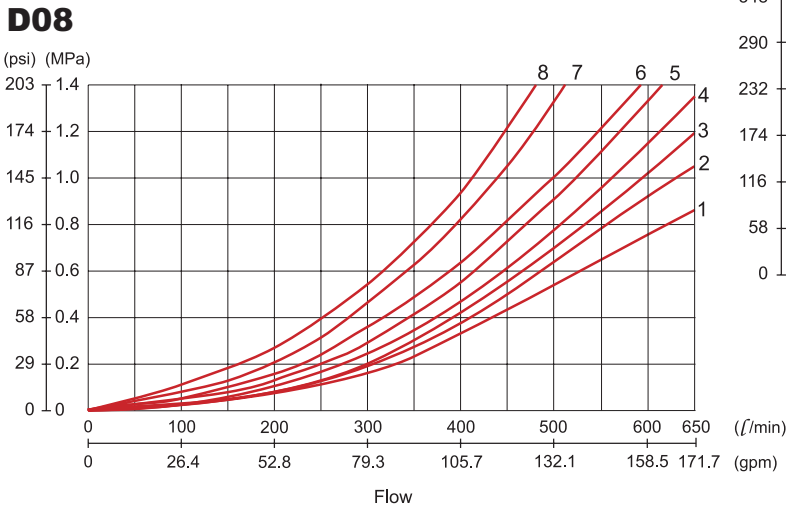
SOLENOID VALVES

D07 & D08 SERIES 35- SOLENOID VALVES



NFPA SIZE: D07 & D08

Typical 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
D08S-1A-115A-35 (Pilot Valve D03S-1A-115A-35)		1A	Spring Centered: All Ports Blocked/ Hydraulic Offset (Closed in Transition)	4500 (315)	75 (283)	1	1	1	3
D08S-2B-115A-35 (Pilot Valve D03S-2F-115A-35)		2B	Spring Centered: All Ports Blocked	4500 (315)	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	4500 (315)	65 (283)	3	1	2	4
D08S-2F-115A-35 (Pilot Valve D03S-2F-115A-35)		2F	Spring Centered: P to Blocked, A & B to T	4500 (315)	75 (283)	2	2	3	5
D08S-2H-115A-ED-35 (Pilot Valve D03S-2F-115A-35)		2H	Spring Centered: All Ports Open	4500 (315)	75 (283)	4	4	3	4
D08S-3A-115A-35 (Pilot Valve D03S-3A-115A-35)		3A	Spring Centered: All Ports Blocked/ Hydraulic Detented (Closed in Transition)	4500 (315)	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 & External Drain Standard

⇒ Use 70 psi back-pressure check valve in tank port to provide shifting pressure.

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

Only use Hyvair plugs with short insertion depth.



SOLENOID VALVES

D07 & D08 SERIES 35- SOLENOID VALVES

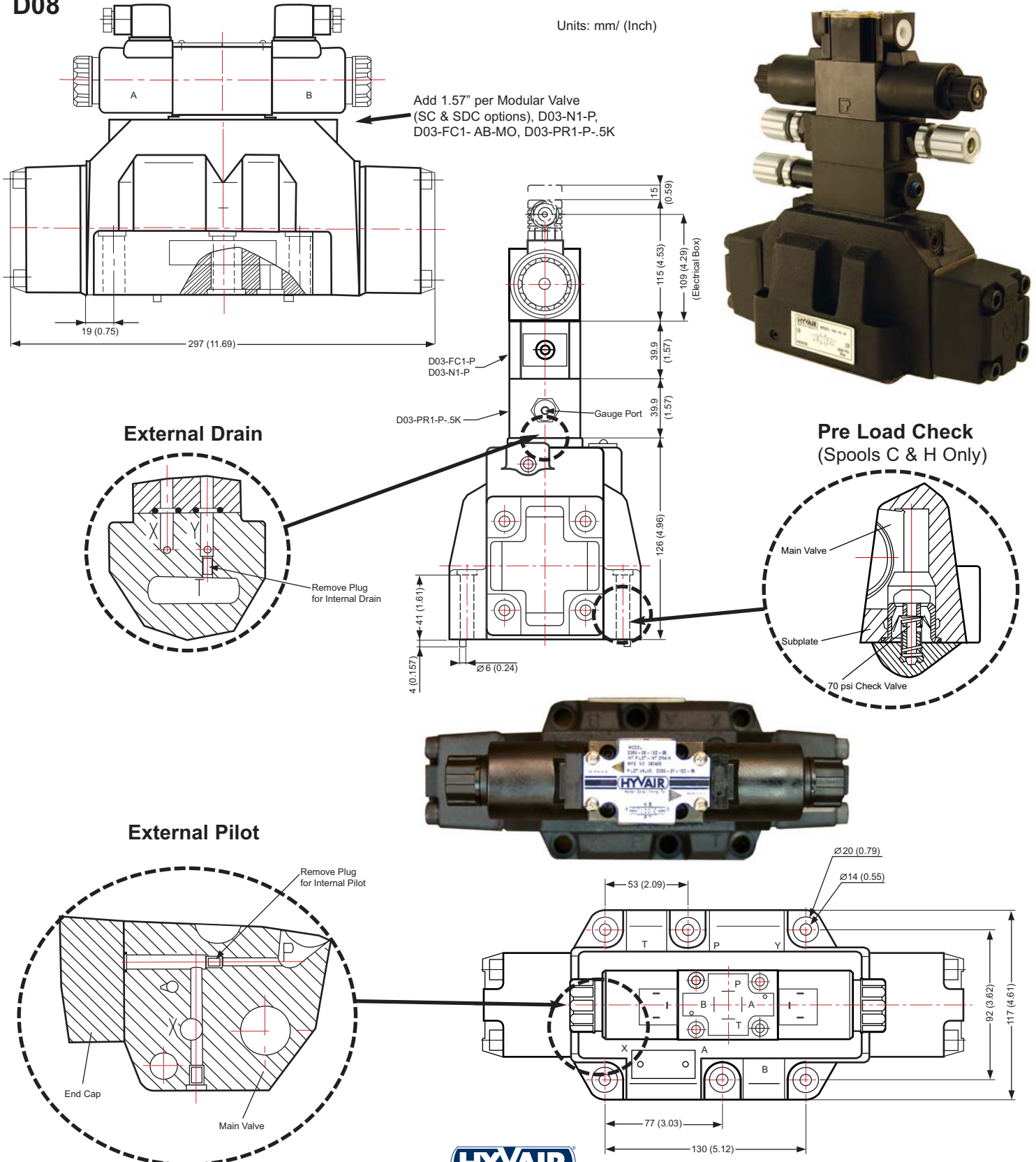


NFPA SIZE: D07 & D08

Dimensional Data

D08

Units: mm/ (Inch)



SOLENOID VALVES

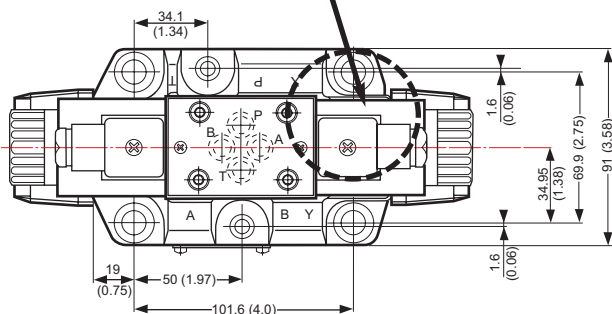
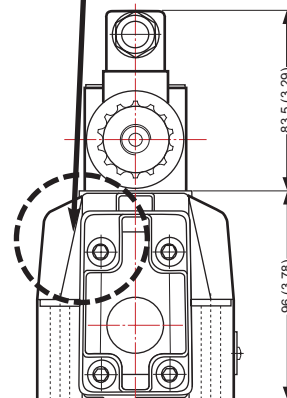
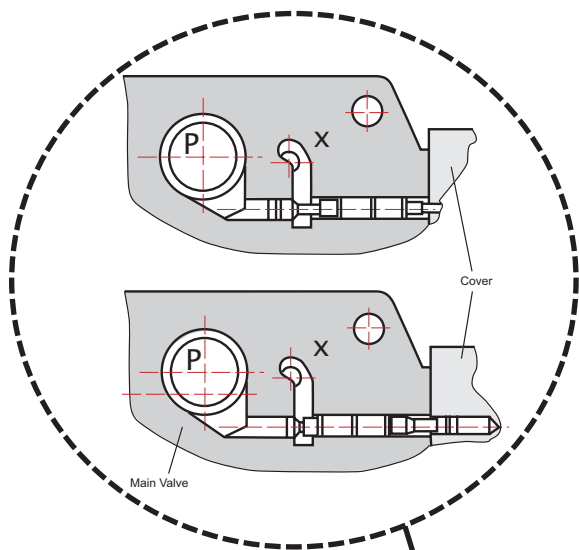
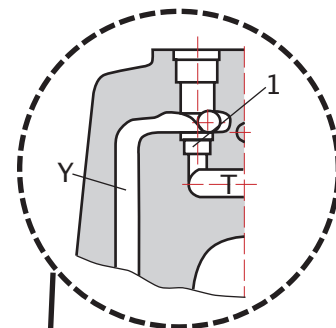
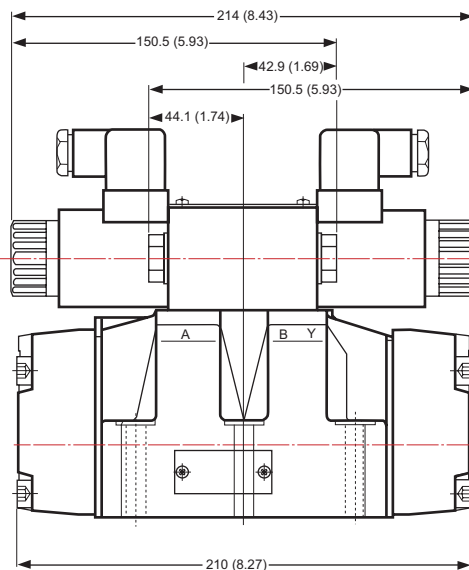
D07 & D08 SERIES 35- SOLENOID VALVES



NFPA SIZE: D07 & D08

Dimensional Data

D07



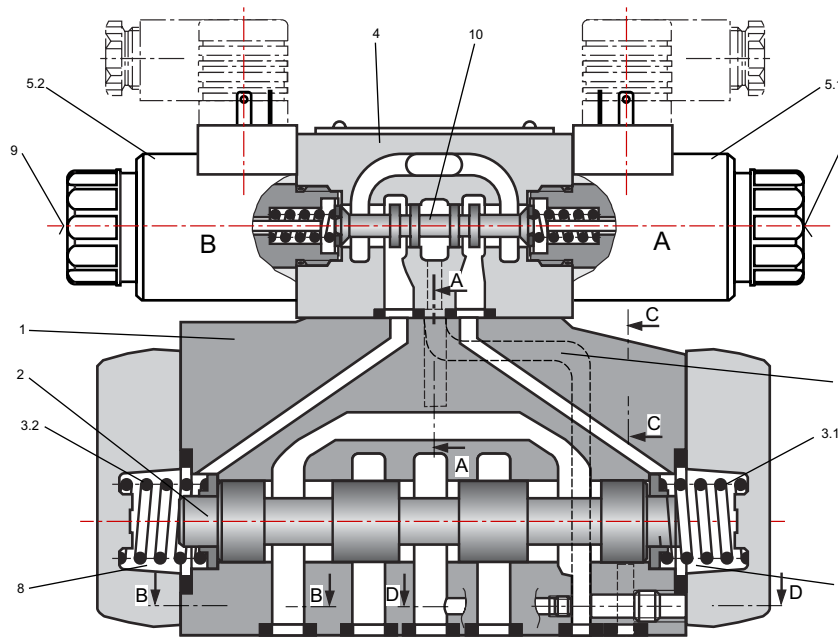
SOLENOID VALVES

D07 & D08 SERIES 35- SOLENOID VALVES



NFPA SIZE: D07 & D08

Cross Section



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

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

Size	Code	Actuator	Code	Configuration	Code	Spool Function	Voltage	Current
D07	S	Solenoid	1	Single solenoid • 2 position spring offset	A	P to A, B to T	12	A= AC
D08	SD	Soln. w/ Din Coil	2	Double solenoid • 3 position spring centered	B	All Ports Blocked	24	D= DC
	SC	Solenoid w/ *Pilot Choke	3	Double solenoid • 2 position no center, detented	C	P to T, A & B Blocked	115	
	SDC	Soln. w/ Din Coil & *Pilot Choke	5	Single solenoid • 2 position spring centered	F	P Blocked, A & B to T	230	
					H	All Ports Open		

*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 Pre Load Check (standard) is used.

