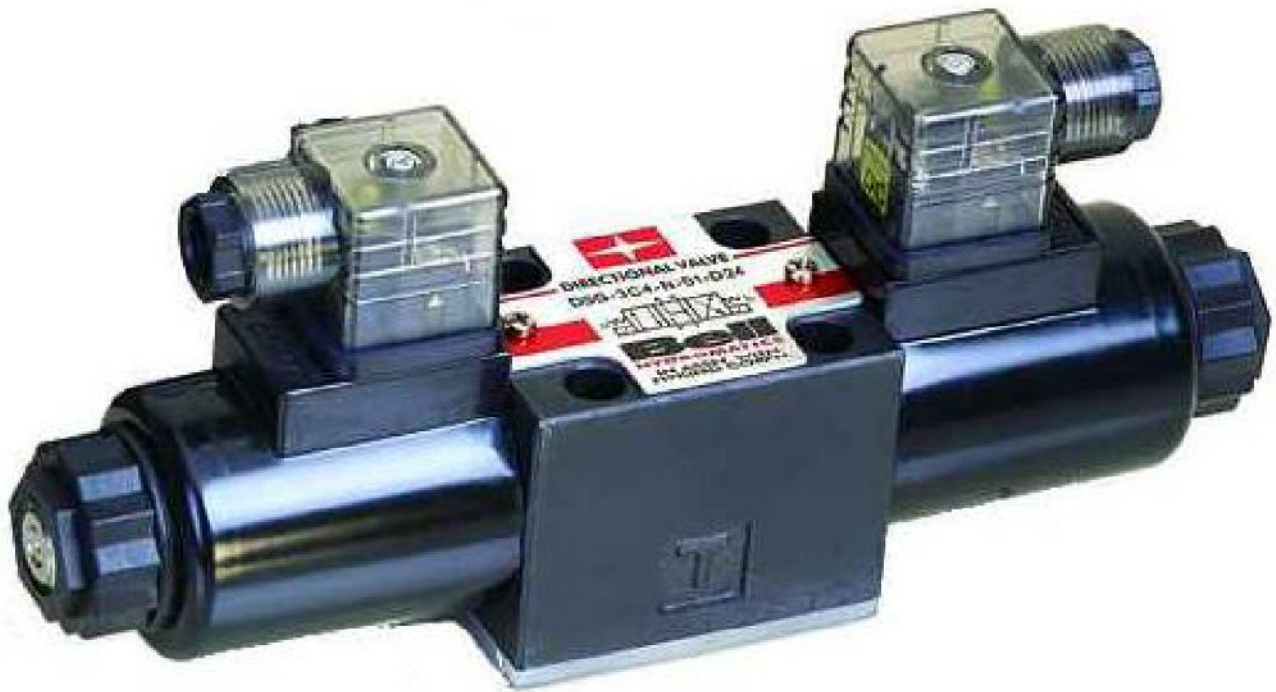




Bell Hydromatics

Directional Valves Solenoid Operated(DSG)

DSG-01-AC



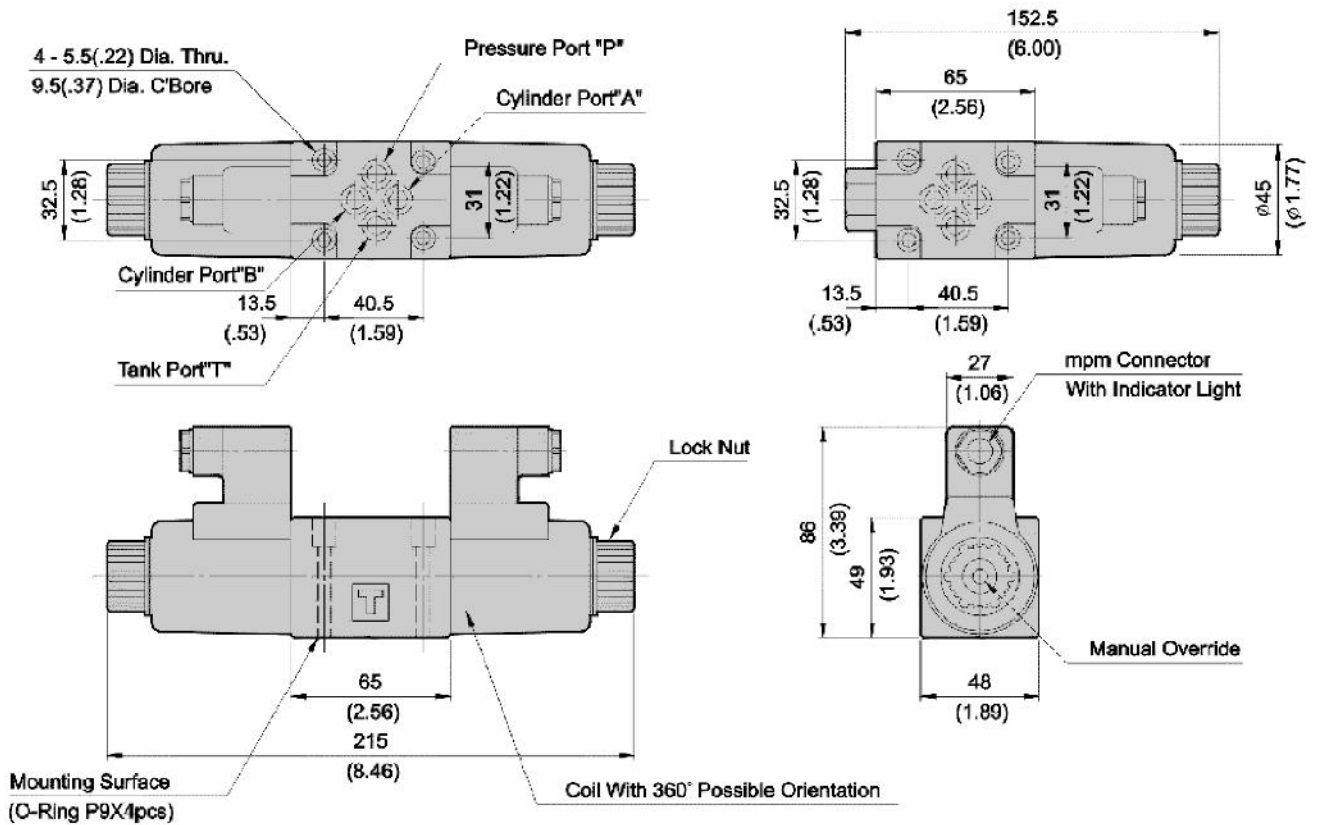
Features:

- High Flow rate upto 63 lpm (16.6 USgpm)
- Maximum Operating pressure upto 315 bar (4500 PSI)
- Long service life with average durability of 50 million spool shifts.

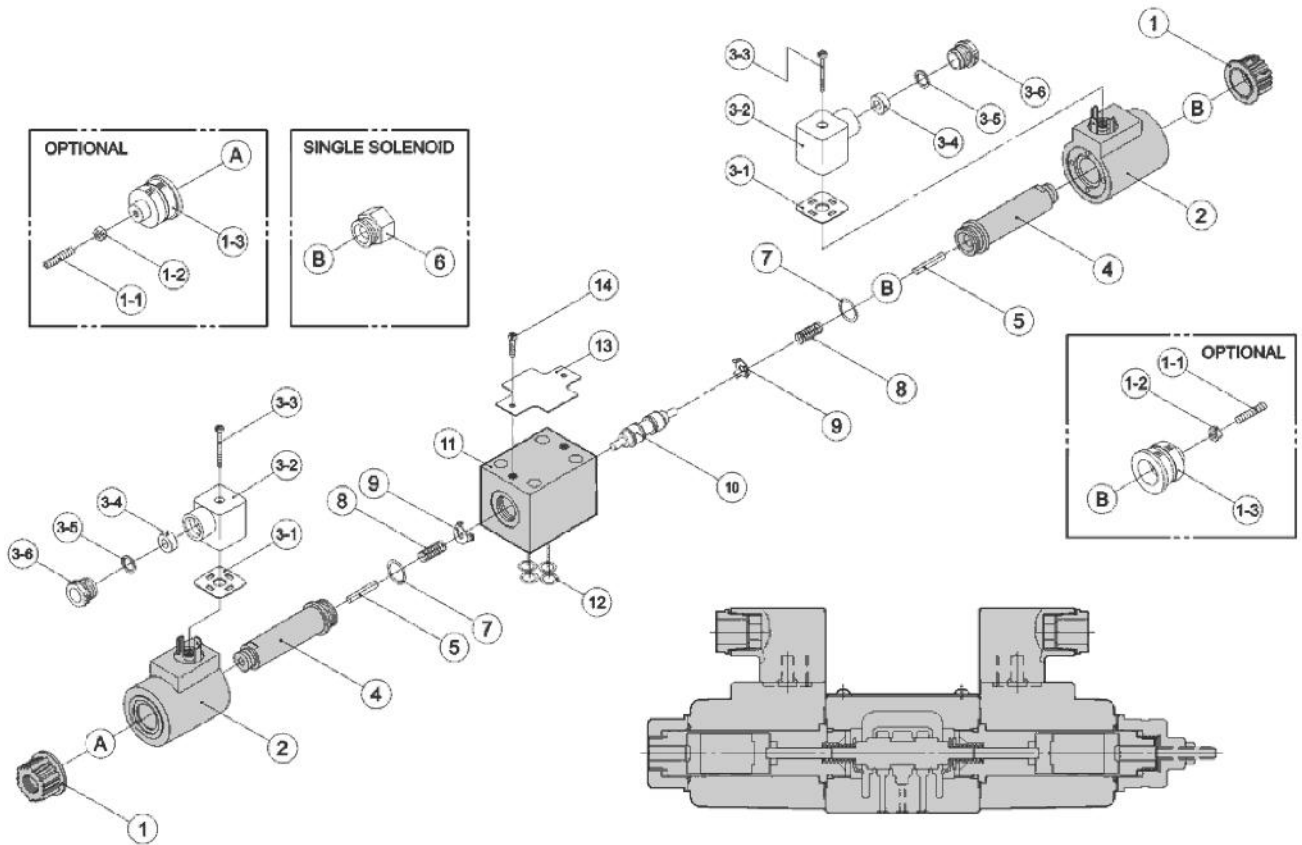
Technical Specifications

Spool Type & Graphic Symbols		DSG – 01 (1/8")	
Symbols	Model Number	Rated Flow Capacity	Maximum Flow Capacity
	DSG-01-2B2-**	30 lpm (7.9 USgpm)	63 lpm (16.6 USgpm)
	DSG-01-2B3-**		
	DSG-01-2B8-**		
	DSG-01-2D2-**		
	DSG-01-2D3-**		
	DSG-01-3C2-**		
	DSG-01-3C3-**		
	DSG-01-3C4-**		
	DSG-01-3C40-**		
	DSG-01-3C7-**		
	DSG-01-3C9-**		
	DSG-01-3C10-**		
	DSG-01-3C11-**		
	DSG-01-3C12-**		
	DSG-01-3C5-**	30 lpm (7.9 USgpm)	45 lpm (11.9 USgpm)
	DSG-01-3C6-**		
	DSG-01-3C60-**		
Max. Operating Pressure (P.AB) (bar)		315 (4500 PSI)	
Max. Operating Pressure 3C5/3C6 Types (bar)		250 (3600 PSI)	
Permissible Back Pressure (T) (bar)		160 (2300 PSI)	
Weight (Kgs)	Double Solenoid	1.9	
	Single Solenoid	1.5	
Switching Frequency (times/min)		280	
Hydraulic Fluids		Use Hydraulic Fluids Equivalent to ISO VG32 or VG46	
Operating Temperature Range (°C)		-15 ~ +70 (+5 ~ +160 °F)	
Operating Viscosity (cSt)		15 ~ 400 (80 ~ 1800 SSU)	
Filtration		25 Microns Absolute or Finer	

Dimensions

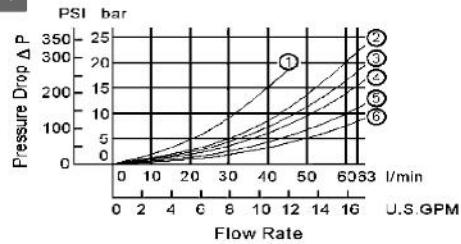


Assembly

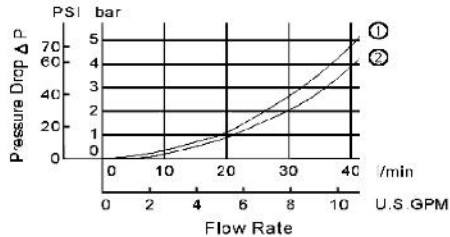


Performance Graphs

DSG-01



DSG-01-S



Series	Spool Type	Pressure Drop Curve Number				
		P→A	B→T	P→B	A→T	P→T
DSG-01	3C2	⑤	⑤	⑤	⑤	—
	3C3	⑥	⑥	⑥	⑥	④
	3C4	⑤	⑥	⑤	⑥	—
	3C40	⑤	⑤	⑤	⑤	—
	3C60	①	①	①	①	④
	3C9	⑥	⑤	⑥	⑤	—
	3C10	⑤	⑥	⑤	⑥	—
	3C12	⑤	⑤	⑤	⑥	—
	2D2	⑤	②	⑤	②	—
	2B2	②	②	⑤	⑤	—
	2B3	③	③	⑤	⑥	—
	2B8	⑤	—	⑤	—	—

Series	Spool Type	Pressure Drop Curve Number			
		P→A	B→T	P→B	A→T
DSG-01-S	3C2	①	①	①	①
	3C4	①	②	①	②
	2B2	①	①	①	①

Graphs based on fluid viscosity of 35 cSt(162 SSU)

Solenoid Specifications

Voltage (V)		AC 110V		AC 220V	
Frquency (Hz)		50	60	50	60
DSG (01) 1/8"	Starting Current (A)	2.38	2.33	1.19	1.17
	Holding Current (A)	0.40	0.45	0.20	0.23

Valve Response Capacity

Working Direction	Energisation	Spring Back
Spring Centered Type (3C*)	0.01 ~ 0.02	0.015 ~ 0.05
No Spring Type (2D*)	0.01 ~ 0.02	—
Spring Offset Type (2B*)	0.01 ~ 0.02	0.015 ~ 0.05

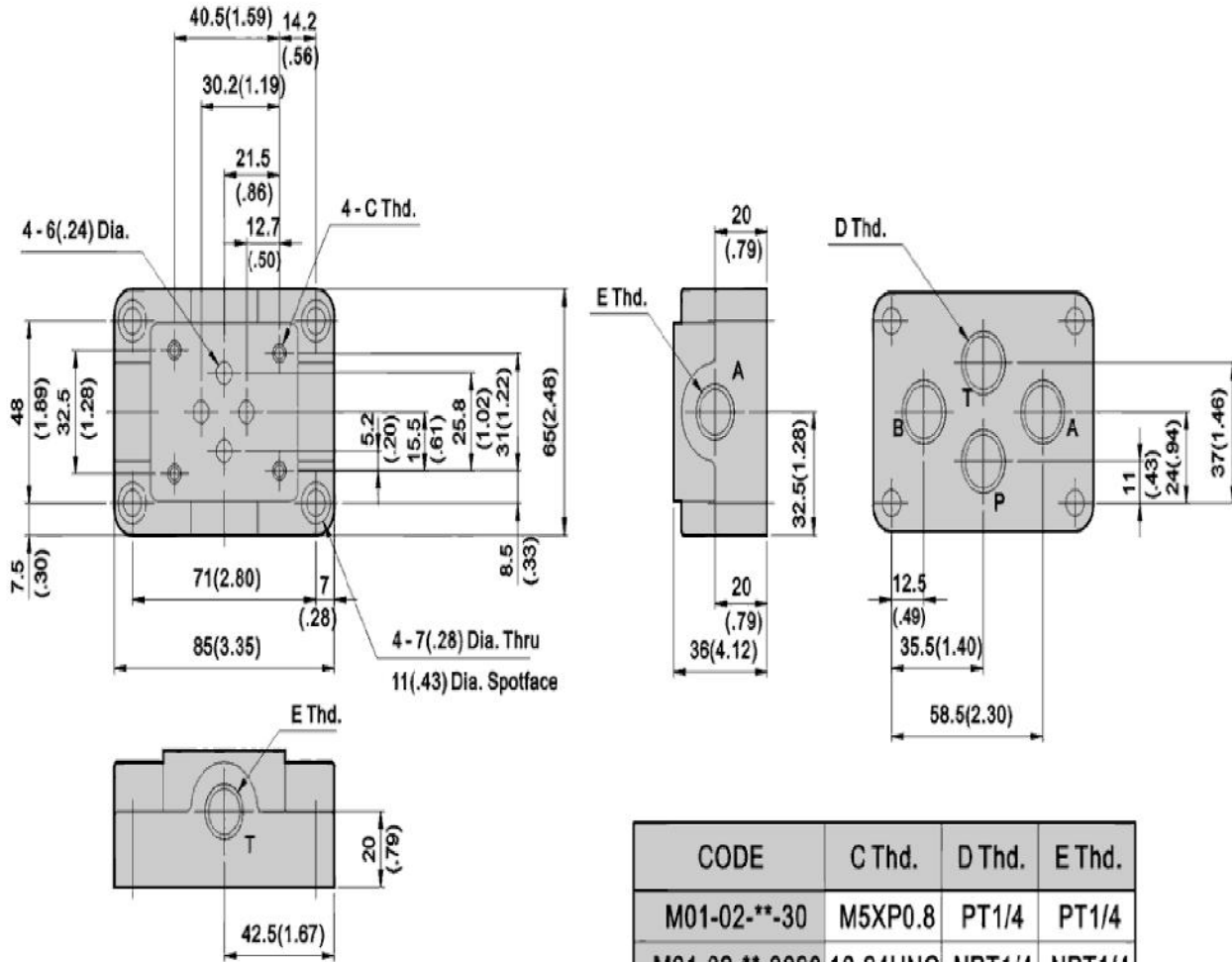
- Above response time test condition based on 140 bar (2000 psi), 30 lpm (7.9 USgpm).
- Changeover response time changes alittle by test condition (pressure, flow, viscosity... etc.).

Subplates

Ordering Code

M01	03	4B	36
Series Number	Port Size	Port Position	Design No.
Subplates for DSG-01 solenoid valves	02: 1/4"	4S: Four side ports (A,B,P,T)	36: with PT thread
	03: 3/8"	4B: Four back ports (A,B,P,T)	
	04: 1/2"	2S2B: Two ports (A,B) in side and Two ports (P,T) in back.	
	06: 3/4"	3S1B: Three ports (A,B,P) in side and one port (T) in back.	
	10: 1-1/4"	3S1B2: Three ports (A,B,P) in side (A+B on one side) and one port (T) in back.	
			4S4B: Four ports (A,B,P,T) in side and four ports (A,B,P,T) in back and supplied with 4 pcs plugs.

Subplate Dimensions



CODE	C Thd.	D Thd.	E Thd.
M01-02-**-30	M5XP0.8	PT1/4	PT1/4
M01-02-**-3090	10-24UNC	NPT1/4	NPT1/4
M01-03-**-30	M5XP0.8	PT3/8	PT3/8
M01-03-**-3090	10-24UNC	NPT3/8	NPT3/8

Ordering Code

DSG	3C2	N	01	A2	36
Series No.	Spool Type	Electrical Conduit Type	Valve Size	Coil Voltage	Design No.
DSG	Spring centered 3 Position (3C94, 3C60, 3C6, 3C3 etc.)	N: DIN connector with light.	01 – 1/8" (NFPA-D03)	A1: AC 100V(50/60Hz) AC 110V(60Hz)	36: with DIN 912 bolts
	Spring Offset 2 Position (2B2, 2B3, 2B8, 2B29 etc.)			A2: AC 200V(50/60Hz) AC 230V(60Hz)	
	Spring Detented 2 Position (2D2, 2D3 etc.)			A3: AC 110V(50Hz)	
				A4: AC 230V(50Hz)	
				A5: AC 240V(50Hz)	