

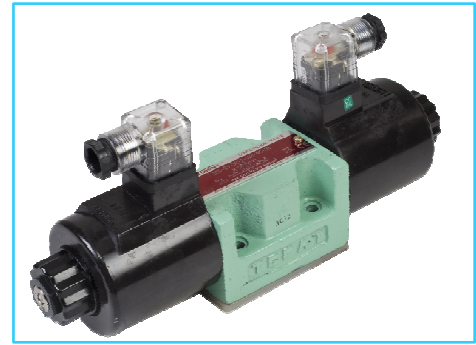
**3/8 Solenoid Operated Directional Valves, DSG-03 Series**

- **WIDE RANGE OF MODELS - Choose the optimum valve to meet your needs from a large selection available.**

The DSG-03 50 series solenoid operated Directional valves are classified into two basic models:

- **Standard type** ----- Useable at high pressure, high flow [315 Kg/cm<sup>2</sup> 120 L/min]
- **Shockless type** ----- which greatly reduces noise which is a result of spool changeover and vibration in pipes.

The optimum valve for any system can be utilized since many spool types and various solenoids are all available, along with other optional functions.



**Specification**

Valve Type	Model Numbers	Max. Flow L/min.	Max. Operating Pressure Kg/cm <sup>2</sup>	Max. T-Line Back Pressure Kg/cm <sup>2</sup>	Max. Changeover Frequency Cycles/Min.	Mass Kg.	
						Type of solenoid	
						AC	DC,R,RQ
Standard Type	DSG-03-3C※-※-50	120	315 {Spool Type 60 Only 250}	160	240 {R Type Sol. Only 120}	3.6	5
	DSG-03-2D2※-※-50						
	DSG-03-2B※-※-50						
Shockless Type	S-DSG-03-3C※-※-50	120	250	160	120	---	5
	S-DSG-03-2B2※-※-50						3.6

\* Maximum flow indicates a ceiling flow. As the ceiling flow depends on the type of spool and operating condition, refer to the list of spool functions on pages 3 and 4 for details.

**Sub-Plates**

Sub-Plate Model numbers	Thread Size	Approx. Mass Kg.
DSGM-03-2180	3/8 BSP.F	3.0
DSGM-03X-2180	1/2 BSP.F	3.0
DSGM-03Y-2180	3/4 BSP.F	4.7

\* Sub-Plates are available. Specify sub-plate model from the table above. When sub-Plates are not used, the mounting surface should have a good machined finish.

**Mounting Bolts**

Four socket head cap screws as in the table below are included.

Soc. Hd. Cap Screw	Qty.	Bolt kit Model No.
M6 x 35 Lg.	4	BKDSG-03-20

**Solenoid Ratings**

Valve Type	Electric source	Coil Type	Frequency (Hz)	Voltage (V)		Current & Power at Rated Voltage					
				Source Rating	Serviceable Range	Inrush (A) <sup>*2</sup>	Holding (A)	Power (W)			
Standard Type	AC <sup>*1</sup>	A100	50	100	80 - 110	5.37	0.90	-			
			60	100	90 - 120	4.57	0.63				
				110		5.03	0.77				
			A120	50	120	96 - 132	4.48		0.75		
				60		108 - 144	3.81		0.52		
			A200	50	200	160 - 220	2.69		0.45		
		60		200		180 - 240	2.29		0.31		
			220	2.52	0.38						
		A240	50	240	192 - 264	2.24	0.37				
			60		216 - 288	1.91	0.26				
		Shockless Type	DC (K Series)	D12	-	12	10.8 - 13.2		-	3.16	38
				D24		24	21.6 - 26.4			1.57	
D48	48			43.2 - 52.8		0.79					
D100	100			90 - 110		0.38					
D110	110			99 - 121		0.35					
D200	200			180 - 220		0.19					
D220	220			198 - 242		0.17					
	AC→DC Rectified	50/60	R100	100	90 - 110	-	0.43	38			
			R110	110	99 - 121		0.38				
			R200	200	180 - 220		0.21				
			R220	220	198 - 242		0.19				

\*1 AC solenoid is not available in shockless type.

R type models with built-in current rectifier is recommended for shockless operation with AC power.

\*2 Inrush current in the above table show rms values at maximum stroke.

**Model Number Designation**

F-	S-	DSG	- 03	- 2	B	2	A	- A 100	- N	50	- L
Special Seals	Shock-Less Type	Series Number	Valve Size	Number of Valve Positions	Spool - Spring Arrangement	Spool Type	Special two Position Valve [Omit if not required]	Coil Type	Electrical Conduit Connection	<sup>*3</sup> Design Number	Models with Alternate offset Solenoid [Omit if not required]
<b>F:</b> Special Seals for Phosphate Ester Type Fluids (Omit if not required)	<b>None:</b> Standard Type	<b>DSG :</b> Solenoid Operated Directional Valve	<b>03</b>	<b>3 :</b> Three Positions	<b>C :</b> Spring Centered	2, 3 4,40 5,60 7, 8 9,10 11,12	--	AC : <b>A 100</b> <b>A 120</b> <b>A 200</b> <b>A 240</b>	<b>None:</b> Terminal Box Type	<b>50</b>	--
						<b>2 :</b> Two Positions	<b>D :</b> No-Spring Detented	2, 3 7,8			<b>A <sup>*1</sup></b>
	<b>S:</b> Shock-Less Type			<b>3 :</b> Three Positions	<b>C :</b> Spring Centered	2,4, 40,60, 10,12	<b>A <sup>*1</sup></b> <b>B <sup>*1</sup></b>	DC : <b>D 12, D 24,</b> <b>D 48, D 100</b> <b>D 200, D 220</b>	<b>N1 :</b> With Plug-in Connector with Indicator Light (Option)		--
						<b>2 :</b> Two Positions	<b>D:</b> No-Spring Detented	2			--
					<b>B :</b> Spring Offset	2					

\*1 Another spool types for special 2-position valves are available in addition to spool type 2,3,7 and 8.

\*2 Coil type "R" is not available for plug-in connector with indicator light type "N1".

\*3 Design numbers subject to change. But installation dimensions remain as shown for design number 50 through 59.