

## CETOP3 Solenoid Operated Directional Valves DSG-01 Series

These are Solenoid Operated Directional Valves of high pressure, high flow and low pressure drop, the features of which can be materialized by employing a powerful wet type solenoid and the rational flow channel design.

- **High Pressure & High Flow Rate**  
In comparison to our existing lines, both the pressure and flow of these valves are much increased.  
Max. Operating Pressure: 35 MPa/5080 PSI  
Max. T-Line Back Pressure: 21 MPa / 3050 PSI  
Max. Flow Rate: 100 L/min
- **Low Pressure Drop**  
The pressure drop of these valves is reduced by 10 % from 1.0 to 0.9 MPa (145 to 131 PSI), in comparison to our existing lines\*; the valves effectively reduce the energy consumption of the unit. {\* At Flow Rate: 60 L/min (15.9 U.S.GPM), Spool Type: 3C2 (P→A)}
- **Compact & Small Mass**  
Despite of high pressure, high flow and low pressure drop, these valve bodies are compact and lightweight with DC double solenoids; the overall length and mass are reduced from 210 to 205 mm and from 2.2 to 1.85 kg, respectively.
- **Shockless type available**  
In addition to the standard valves for high pressure and high flow, a shockless type capable of minimizing noise and vibration in piping during spool changeover is also available.
- **Stable Operation**  
Due to the powerful magnetic and spring force of the solenoids, these valves exhibit a high tolerance to contaminants and especially stable operation.
- **IP65-equivalent high dust- and water-proof**  
These valves demonstrate excellent dust- and water-proof characteristics, in compliance with I. E. C. Pub. 529. IP65 and JIS C 0920 IP65 (dust- and jet-proof type).
- **Usable in products of various standards**  
These standard valves are CE certified for installation in equipment overseas. UL/CSA certified products are also available.

### Specifications

Valve Type	Model Numbers	Max. Flow L/min	Max. Operating Pressure MPa (PSI)	Max. T-Line Back Pressure MPa (PSI)	Max. Changeover Frequency Cycle/min {min-1}	Mass kg	Price £	Price €
Standard Type	DSG-01-3C*-*-70	100	35 (5080)	21 (3050)	300 (R Type Sol. Only)	1.85	<b>£144.00</b>	<b>€172.80</b>
	DSG-01-2D2*-*-70	100	35 (5080)	21 (3050)		120	1.85	<b>£144.00</b>
	DSG-01-2B*-*-70	100	35 (5080)	21 (3050)		1.4	<b>£116.80</b>	<b>€140.20</b>
Shockless Type	S-DSG-01-3C*-*-70	63	25 (3630)	21 (3050)	120	1.85		
	S-DSG-01-2B2*-*-70	63	25 (3630)	21 (3050)	120	1.4		
Low Wattage (14W) Type *1	L-DSG-01-3C*-*-70	40	16 (2320)	16 (2320)	300 (R Type Sol. Only)	1.85		
	L-DSG-01-2D2*-*-70	40	16 (2320)	16 (2320)		120	1.85	
	L-DSG-01-2N*-*-70	40	16 (2320)	16 (2320)		1.85		
	L-DSG-01-2B*-*-70	40	16 (2320)	16 (2320)		1.4		

★1. For details of L-DSG-01, please contact us.

★2. Maximum flow indicates a ceiling flow depends on the type of spool and operating condition, refer to the List of Spool Functions on page 351 for details.

### Sub-plate

Piping Size	Japanese Standard "JIS"		European Design Standard		N.American Design Standard Approx.		Mass kg
	Sub-plate Model Numbers	Thread Size	Sub-plate Model Numbers	Thread Size	Sub-plate Model Numbers	Thread Size	
1/8	DSGM-01-31	Rc 1/8	DSGM-01-3180	1/8 BSP.F	DSGM-01-3190	1/8 NPT	0.8
1/4	DSGM-01-31	Rc 1/4	DSGM-01-3180	1/4 BSP.F		1/4 NPT	0.8
3/8	DSGM-01-31	Rc 3/8	-			3/8 NPT	0.8

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

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CETOP MOUNTED VALVES

## Mounting Bolt

For socket head cap screws in the table below are included.

Descriptions	Soc. Hd. Cap Screw (4 pcs.)	Tightening Torque
Japanese Standard "JIS" European Design Standard	M5 x 45 Lg.	5 - 7 Nm (43 - 60 in. lbs.) (Applicable to working pressure more than 25 MPa (3630 PSI); 6 - 7 Nm (52 - 60 in. lbs.)
N. American Design Standard	No. 10-24 UNC 1-3/4 Lg .	

## Solenoid Ratings

Valve Type	Electric source	Coil Type	Frequency (Hz)	Voltage (V)		Current & Power at Rated Voltage		
				Source Rating	Serviceable Range	Inrush (A) *2	Holding (A)	Power (W)
Standard Type	AC*1	A100	50	100	80 - 110	2.42	0.51	-
		A100	60	100	90 - 120	2.14	0.37	-
		A100	60	110	90 - 120	2.35	0.44	-
		A120	50	120	96 - 132	2.02	0.42	-
		A120	60	120	108 - 144	1.78	0.31	-
		A200	50	200	160 - 220	1.21	0.25	-
		A200	60	200	180 - 240	1.07	0.19	-
		A200	60	220	180 - 240	1.18	0.22	-
		A240	50	240	192 - 264	1.01	0.21	-
		A240	60	240	216 - 288	0.89	0.15	-
Shockless Type	DC (K Series)	D12	-	12	10.8 - 13.2	-	2.45	29
		D24	-	24	21.6 - 26.4	-	1.23	29
		D48	-	48	43.2 - 52.8	-	0.61	29
	AC → DC Recified (R)	R100	50/60	100	90 - 110	-	0.33	29
		R200	50/60	200	180 - 220	-	0.16	29

\*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.

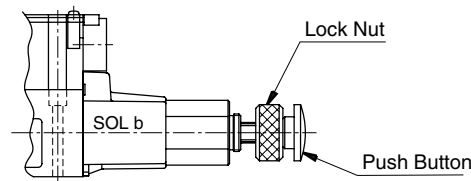
\*3 There are more coil types other than the above. For details, please make inquiries.

The coil type numbers in the shaded column are handled as optional extras. In case these coils are required to be chosen, please confirm the time of delivery with us before ordering.

## Options

### Push Button with Lock Nut

Can be used for manual changeover of spool. The push button can be locked in the pressed condition.



### Plug-in Connector with Solenoid Indicator Light

These are the indicator light incorporated plug-in connector type solenoids. Energisation or de-energisation of the solenoid can be easily identified with the incorporated indicator light.

