

~ISO 9001:2000 CERTIFICATION~



A

DIRECTIONAL CONTROLS



【SWG-03】

"ISO4401-AC-05-4-A、NFPA-D05、CETOP 5、DIN 24340 NG10"



■ WITHIN CE MARKING REQUIREMENT

The apparatus meets the requirements of the following standards and hence fulfills the requirements of EMC Directive 89/336/EEC as amended by Directives 92/31/EEC and 93/68/EEC within CE marking requirement.

EN61000-6-3 : 2001+A11 : 2004 : CISPR 22 : 1997+A1:2000+A2 : 2002 Class B,
 IEC61000-3-2 : 2000, modified
 EN61000-3-3 :1994+A1:2001
 EN61000-6-1 : 2001 : IEC61000-4-2 :1995+A1:1998+A2: 2000
 IEC61000-4-3 : 2002, IEC61000-4-4 :2004
 IEC61000-4-5 : 1995+A1:2000 IEC61000-4-6 :1996+A1:2000
 IEC61000-4-8 : 1993+A1:2000 IEC61000-4-11:1994+A1:2000.

■ STABLE OPERATION

With a strong magnet and spring force, the valves are tough against contamination and thus ensure a stable operation. Under standard operation, the durability to 10 million spool shifts.(Average)

■ HIGH QUALITY & COMPETITIVE PRICE

All products are 100% tested by professional testing machinery. The material of tube is imported from Japan, and all parts are processed by professional specific automatic machinery. But the price is less 30% than leading brands.

■ EASY MAINTENANCE

Plug-in solenoid, all spools and bodies are interchangeable, the head of tube is design to hexnut to simplifying maintenance and reduce damage when assembl.

■ HIGH PERFORMANCE 【SWGH SERIES】

High pressure(up to 35MPa), high flow rating, provides low pressure drop, with maximum performance. If need more details please consult our distributors.

■ CUSTOMIZATION

According to the requirement of customer to customize the product, and 100% satisfy their need.



SOLTECH

DIRECTIONAL CONTROLS

SOLENOID OPERATED DIRECTIONAL CONTROL VALVES

※MOUNTING BOLTS :

Descriptions	Soc.Hd.Cap Screw(4 pcs.)	Tightening Torque
Taiwan Design Standard	03 : M6 × 35 Lg 03	0.5 - 0.7Kgf m(43 - 60 in. lbs)
European Design Standard		
N.America Design Standard	No.10 - 24 UNC × 1-3/4 Lg.	

★Four socket head cap screws in the table below are included

※SPECIFICATION :

Max. Pressure (kgf/cm ²)	Rated Flow (l/min.)	Max. T-Line Back Pressure (kg/cm ²)	Max.Frequency of Operation (cycle/min.)	Filtration (Micron.)	Ambient Temperature Range(°C)	Weight (kgs)
315 (31.5MPa) (4570 psi)	100 (26.3gpm)	160 (16 MPa) (2320 psi)	240	25 β ₂₅ ≥ 75	-5 ~ 60	3C、2D、2N - AC:4.6 DC:5.8 2B - AC:3.8 DC:4.4

★Spool type "5", "6", "60" Max. Pressure : 250 kgf/cm²(25MPa, 3630psi)

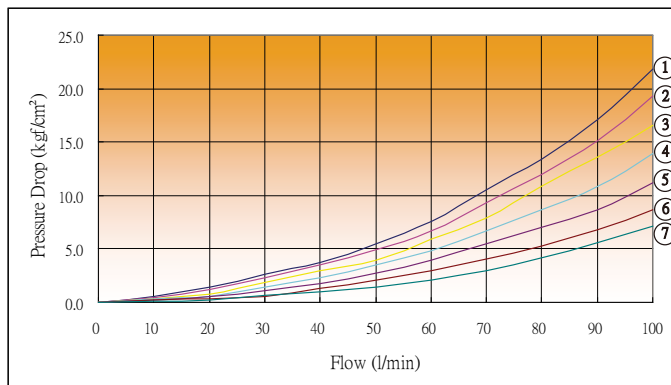
※SOLENOID RATING :

Power	Voltage (V)	Frequency (HZ)	Current At Rated Voltage		Power (W)
			In-Rush Current(A)	Holding Current(A)	
AC	A110	50	3.20	0.80	
		60	2.90	0.65	
			3.10	0.70	
	A120	50	2.50	0.84	
		60	2.97	0.64	
	A220	50	1.72	0.42	
			1.47	0.32	
		60	1.63	0.35	
			1.47	0.32	
	A240	50	1.73	0.42	
		60	1.47	0.32	
	DC	D12			
D24				1.6	

★Solenoid Isulation Class: Class H

※PERFORMANCE CURVES :

Test fluid viscosity:35 cst(175ssu)
Test temperature: 50°C (122°F)



Spool Type	P→A	B→T	P→B	A→T	P→T
3C2	4	5	4	5	-
3C3	6	6	6	6	6
3C4	4	7	4	7	-
3C40	4	5	4	5	-
3C5	6	5	4	6	2
3C6	5	5	5	5	1
3C60	5	5	5	5	1
3C7	6	5	6	5	-
3C8	4	5	4	7	-
3C9	6	5	4	5	-
3C10	5	6	4	5	-
3C11	6	5	4	5	-
3C12	4	5	4	7	-
2D2	3	3	4	5	-
2D3	3	3	5	5	-
2B2	2	2	4	5	-
2B3	2	2	5	6	-



DIRECTIONAL CONTROLS

SOLENOID OPERATED DIRECTIONAL CONTROL VALVES

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※LIST OF STANDARD MODEL AND MAXIMUM FLOW : 【SWG-03-***-AC-(*)】 :

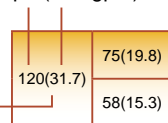
No. Of Valve Position	Spool-Spring Arrangement	Model No. & Description	Graphic Symbols	Max. Flow lpm(U.S.GPM)										
				P → A → B → T			P → A (PORT "B" BLOCKED)			P → B (PORT "B" BLOCKED)				
				10MPa (1450psi)	25MPa (3630psi)	31.5MPa (4570psi)	10MPa (1450psi)	25MPa (3630psi)	31.5MPa (4570psi)	10MPa (1450psi)	25MPa (3630psi)	31.5MPa (4570psi)		
Three Positions	Spring Centered	3C2		100(26.4)	100(26.4)	100(26.4)	100(26.4)	96(25.4)	85(17.2)	100(26.4)	96(25.4)	85(17.2)		
		3C3		90(23.8)	90(23.8)	90(23.8)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	
		3C4		80(21.1)	80(21.1)	80(21.1)	80(21.1)	80(21.1)	80(21.1)	80(21.1)	80(21.1)	80(21.1)	80(21.1)	
		3C40		100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	
		3C5		30(7.9)	30(7.9)	30(7.9)	26(6.9)	18(4.8)	16(4.2)	26(6.9)	18(4.8)	16(4.2)	16(4.2)	
		3C60		70(18.5)	70(18.5)	-	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	
		3C9		100(26.4)	100(26.4)	100(26.4)	60(15.9)	60(15.9)	60(15.9)	60(15.9)	60(15.9)	60(15.9)	60(15.9)	
		3C10		80(23.8)	80(23.8)	80(23.8)	80(23.8)	80(23.8)	80(23.8)	80(23.8)	80(23.8)	80(23.8)	80(23.8)	
		3C11		100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	
		3C12		90(23.8)	90(23.8)	90(23.8)	90(23.8)	90(23.8)	90(23.8)	90(23.8)	90(23.8)	90(23.8)	90(23.8)	
		Two Positions	Spring Offset	2B2		100(26.4)	100(26.4)	100(26.4)	34(9.0)	20(5.3)	19(5.0)	100(26.4)	100(26.4)	94(24.8)
				2B3		100(26.4)	100(26.4)	100(26.4)	57(15.1)	57(15.1)	57(15.1)	100(26.4)	100(26.4)	100(26.4)
2B8				-	-	-	26(6.9)	18(4.8)	16(4.2)	35(9.2)	9(2.4)	7(1.8)		
2D2				120(31.7)	120(31.7)	120(31.7)	45(11.9)	30(7.9)	28(7.4)	60(15.9)	40(10.6)	35(9.2)		
2B2				100(26.4)	100(26.4)	100(26.4)	34(9.0)	20(5.3)	19(5.0)	100(26.4)	100(26.4)	94(24.8)		
2B3				100(26.4)	100(26.4)	100(26.4)	57(15.1)	57(15.1)	57(15.1)	100(26.4)	100(26.4)	100(26.4)		
2B8			-	-	-	26(6.9)	18(4.8)	16(4.2)	35(9.2)	9(2.4)	7(1.8)			

Notes : 1. The relation between the maximum flow in the table above and the frequency /voltage (within the serviceable voltage) is as shown below.

EX:

The maximum flow rate is constant regardless of any voltage variants within the serviceable voltage

lpm(U.S.gpm)



At rated voltage [after temperature rise and saturated]

At minimum serviceable voltage (90% of rated voltage) [after temperature rises and saturated]



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DIRECTIONAL CONTROLS

SOLENOID OPERATED DIRECTIONAL CONTROL VALVES

※LIST OF STANDARD MODEL AND MAXIMUM FLOW : 【SWG-03-***-DC-(*)】 :

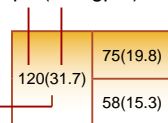
No. Of Valve Position	Spool-Spring Arrangement	Model No. & Description	Graphic Symbols	Max. Flow lpm(U.S.GPM)									
				10MPa (1450psi)	25MPa (3630psi)	31.5MPa (4570psi)	10MPa (1450psi)	25MPa (3630psi)	31.5MPa (4570psi)	10MPa (1450psi)	25MPa (3630psi)	31.5MPa (4570psi)	
Three Positions	Spring Centered	3C2		120(31.7)	120(31.7)	120(31.7)	120(31.7)	80(21.1) 54(14.3)	55(14.5) 43(11.4)	120(31.7)	80(21.1) 54(14.3)	55(14.5) 43(11.4)	
		3C3		120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)
		3C4		120(31.7)	120(31.7)	120(31.7)	120(31.7)	84(22.2) 65(17.2)	64(16.9) 53(14.0)	120(31.7)	84(22.2) 65(17.2)	64(16.9) 53(14.0)	
		3C40		120(31.7)	120(31.7)	120(31.7)	120(31.7)	62(16.4) 57(15.2)	49(12.9) 42(11.1)	120(31.7)	62(16.4) 57(15.2)	49(12.9) 42(11.1)	
		3C5		50(13.2)	50(13.2)	50(13.2)	35(9.2)	21(5.5)	20(5.3)	45(11.9)	45(11.9)	45(11.9)	
		3C60		120(31.7)	120(31.7)	-	120(31.7)	120(31.7)	-	120(31.7)	120(31.7)	-	
		3C9		120(31.7)	120(31.7)	120(31.7)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	
		3C10		120(31.7)	120(31.7) 65(17.2)	65(17.2) 50(13.2)	120(31.7)	60(15.9) 46(12.2)	51(13.5) 40(10.6)	120(31.7)	60(15.9) 46(12.2)	51(13.5) 40(10.6)	
		3C11		120(31.7)	120(31.7)	120(31.7)	100(26.4)	80(21.1) 62(16.4)	65(17.2) 52(13.7)	100(26.4)	80(21.1) 62(16.4)	65(17.2) 52(13.7)	
		3C12		120(31.7)	120(31.7) 65(17.2)	65(17.2) 50(13.2)	120(31.7)	62(16.4) 47(12.4)	51(13.5) 40(10.6)	120(31.7)	62(16.4) 47(12.4)	51(13.5) 40(10.6)	
Two Positions	Spring Offset	2B2		110(29.1) 100(26.4)	110(29.1) 100(26.4)	110(29.1) 100(26.4)	68(18.0)	38(10.0)	38(10.0)	120(31.7)	75(19.8) 58(15.3)	63(16.6) 48(12.7)	
		2B3		120(31.7)	120(31.7)	120(31.7)	77(20.3)	77(20.3)	77(20.3)	120(31.7)	120(31.7)	120(31.7) 103(27.2)	
		2B8		-	-	-	53(14.0)	24(6.3)	23(6.1)	120(31.7)	62(16.4) 40(10.6)	47(12.4) 37(9.8)	
	No Spring Detended	2D2		120(31.7)	120(31.7)	120(31.7)	45(11.9)	30(7.9)	28(7.4)	60(15.9)	40(10.6)	35(9.2)	

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