






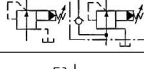




C

PRESSURE CONTROLS

Valve Type	KS Graphic Symbols	Max.oper ating Pressure MPa {kgf/cm ² }	Max. Flow L/min																Page
			1	2	3	5	10	20	30	50	100	200	300	500	1000	2000			
Remote Cont. Relief Valves		25 {255}	01																C-3
Direct Type Relief Valves		21 {214}	02																C-5
Pilot Operated Relief Valves		25 {255}	030610																C-7
Low Noise Type Pilot Relief Valves		25 {255}	0306																C-11
Sol. Cont. Relief Valves		25 {255}	030610																C-14
H Type Press. Cont. Valves		21 {214}	030610																C-23
HC Type Press. Cont. Valves		21 {214}	030610																C-29
Press. Reducing & Check Valves		21 {214}	0306																C-34
Press. Reducing & Relieving Valves		03:14 {143}	03																C-40
Unloading Relief Valves		21 {214}	06																C-43

Hydraulic Fluids

1. Fluid Types

Any type of hydraulic fluid, listed in the table below can be used.

Petroleum based oil	Use fluids equivalent to ISO VG32 or VG46.
Synthetic fluids	Use phosphate ester or polyol ester fluid. When phosphate ester fluid is to be used, prefix "F-" to the model number because a special seal (fluororubber) will be used.
Water containig fluids	Use water - glycol fluid.

Note: For use with hydraulic fluids other than those listed above, please consult your SEWON represestatives in acvance.

2. Recommended Fluid Viscosity and Temperature

Use under conditions where the viscosity and temperature of the hydraulic fluid remain in the ranges indicated in the following table.

Name		Viscosity	Temperature
Remote Control Relief Valves	H Type Presure Control Valves	15~400mm ² /s{cSt}	-15~+70℃
Direct Type Relief Valves	HC Type Pressure Control Valves		
Pilot Operated Relief Valves	Pressure Reducing Valves		
Low Noise Type Pilot Operated Relief	Valves Pressure Reducing and Check Valves		
Solenoid Controlled Relief Valves	Pressure Reducing and Relieving Valves		

* If the valve is provided with a vent ristrictor (ex.: A-BSG-03), the viscosity range should be 15-200cSt (80-900 SSU).

3. Control of Contamination

Due caution must be paid to maintaining control over contamination of the hydraulic fluids which may otherwise lead to breakdowns and shorten the life of the valve. Please maintain the degree of contamination within NAS 1638-Grade 11. Use 25μm or finer line filter.

4. Drain Piping

Drain port must be connected directly to the tank in condition back pressure is lower than the atmospheric pressure. That line pressure can be increased infinitely can be caused a serious accident.

Solenoid Controlled Relief Valves

These valves are a combination of relief valve and solenoid valve.

Piping between the two is eliminated as the solenoid valve is directly mounted on the relief valve and connected with the relief valve vent.

Pump pressure may be unloaded remotely by an electrical signal to the solenoid, or by connecting pilot relief valves to the solenoid valve ports.

Ratings

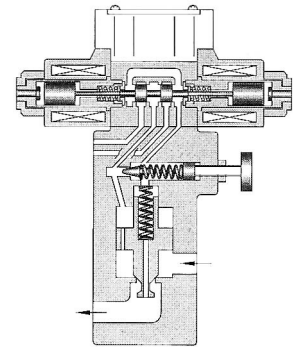
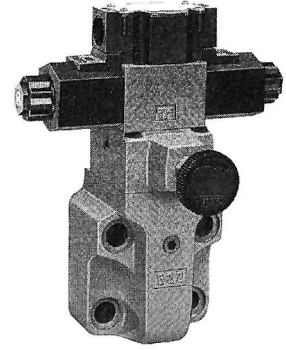
Model Numbers		Max. Operating Pressure MPa {kgf/cm ² }	Pres. Adj. Range MPa {kgf/cm ² }	Max. Flow l/m	Mass kg
Threaded Connections	Sub-Plate Mounting				
BST-03-※-※-※-※-60	BSG-03-※-※-※-※-60	25{255}	★~25	100	Refer to table below
BST-06-※-※-※-※-60	BSG-06-※-※-※-※-60		★~255	200	
BST-10-※-※-※-※-60	BSG-10-※-※-※-※-60			400	

★ For relief valves, standard pilot operated valves are used.

For minimum adjustment pressures and other characteristics, see page C-10.

Mass

Model Numbers	Double-Solenoid Types	Single-Solenoid Types	With Vent Restrictor
BST-03	7.4kg	6.8kg	7.8kg
BST-06	7.4kg	6.8kg	7.8kg
BST-10	11.1kg	10.5kg	11.5kg
BSG-03	7.1kg	6.5kg	7.5kg
BSG-06	8.0kg	7.4kg	8.4kg
BSG-10	11.3kg	10.7kg	11.7kg



Model Number Designation

A-	BS	T	-03	-V	-2B3A	-A100	-N	-46
With Vent Restrictor ^{★1}	Series Number	Type of Mounting	Valve Size	High Venting Pres. Feature ^{★2}	Vent Type ^{★3}	Coil Type ^{★4}	Type of Electrical Con.	Design Number
A: With Vent Restrictor (Option) ^{★1}	BS: Solenoid Controlled Relief Valves	T: Threaded Connection	03	V: For High ^{★2} Venting Pressure Feature (Omit if not required)	2B3A	AC: A100 A200 DC: D12, D24	None: Terminal Box Type N: With Plug-in Connector(DIN)	60(Std.)
			06		2B3B			6031
			10		2B2B			(03,06 Low Pressure Control)
		G: Sub-Plate Mounting	03		2B2			6020(10 Low Pressure Control)
			06		3C2			6078(C-19page)
			10		3C3			

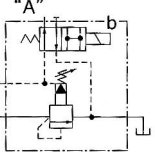
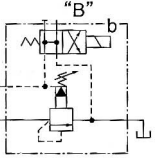
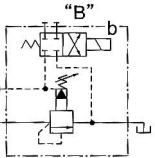
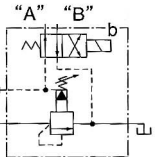
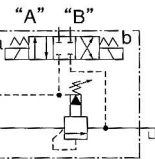
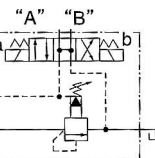
★1. Models with vent restrictor are applicable only for the vent type 2B3A and 2B3B. For details, see page C-16.

★2. Use high-venting-pressure types to reduce response time from unloading to onloading.

★3. For the details of the vent types, see the following page.

★4. The coil codes are the same as for solenoid operated directional valve DSG-01. See Solenoid Ratings on page E-10.

Vent Types

Vent Types	Graphic Symbols	Solenoid Operated Directional Valve Model Number	Operation		
			SOL "a"	SOL "b"	Vent Connecting
2B3A		DSG-01-2B3A	—	OFF	Connected to port "A".
				ON	Connected to tank (no-load)
2B3B		DSG-01-2B3B	—	OFF	Connected to tank (no-load)
				ON	Connected to port "B".
2B2B		DSG-01-2B2B	—	OFF	Closed state (relief valve setting pressure)
				ON	Connected to port "B".
2B2		DSG-01-2B2	—	OFF	Connected to port "A".
				ON	Connected to port "B".
3C2		DSG-01-3C2	OFF	OFF	Closed state (relief valve setting pressure)
			ON	OFF	Connected to port "A".
			OFF	ON	Connected to port "B".
3C3		DSG-01-3C3	OFF	OFF	Connected to tank (no-load)
			ON	OFF	Connected to port "A".
			OFF	ON	Connected to port "B".

Attachment

Mounting Bolts

Valve Model Numbers	Socket Head Cap Screw
BSG-03	M12 × 70L 2pcs, M12 × 95L 2pcs
BSG-06	M16 × 60L 2pcs, M16 × 80L 2pcs
BSG-10	M20 × 70L 2pcs, M20 × 90L 2pcs

Connection Style

Connection style is the same as for solenoid operated directional valve DSG-01. For the detail of connection style, refer to page E-21.

Sub-plates

Valve Model Numbers	Socket Head Model Numbers	Piping Size	Mass kg
BSG-03	BGM-03-20	Rc $\frac{3}{8}$	2.4
	BGM-03X-20	Rc $\frac{1}{2}$	3.1
BSG-06	BGM-06-20	Rc $\frac{3}{4}$	4.7
	BGM-06X-20	Rc 1	5.7
BSG-10	BGM-10-20	Rc $1\frac{1}{4}$	8.4
	BGM-10X-20	Rc $1\frac{1}{2}$	10.3

- 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.
- The sub-plates are those for pilot operated relief valves. For dimensions, see page C-9.

C

Solenoid Controlled Relief Valves

BST-03,06,10

- Solenoid Indicator Light

Mounting Surface
(O-Rings Furnished)

Locating Pin
6 Dia.

Two Collars*1

- Lock Nut 14 Hex.

Pressure Adjustment Handle

Remote Co

K.

Pressure

Pressure

Tank Port -

Mounting Surface

BSG-03:ISO 6264-AR-06-2-A

BSG-06:ISO 6264-AS-08-2-A

BSG-10:ISO 6264-AT-10-2-A

★ Pressure is limited by collars fitted. If a working pressure cannot be attained, remove some collars. One collar is equivalent to 10 MPa. {10.2kgf/cm²}

Space Needed to Remove Solenoid-Each End.

AC :45.5
DC/R :55
Electrical conduit
connection G1/2 2 Places

— Manual Actuator Both
Ends 6 Dia.

Remote Control Port
"A" Rc 1/8

— In case of BSG-03, no spotface are made at those two holes.

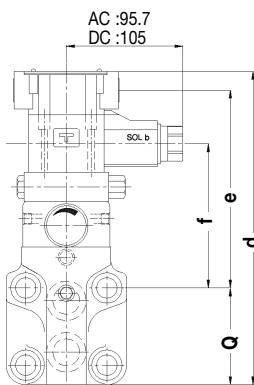
— "Y" Dia. Through
"Z" Dia. Spotface
4 Places

Model Numbers	C	D	E	F	H	J	K	L	N	P	Q	S	T	U	V	X	Y	Z	a	b
BSG-03	75	40	57	78	78	145	14.1	41	82	227.3	77	132	22	85	47	40	13.5	21	55	-
BSG-06	75	40	40	60	78	145	17	52	104	251.3	83.5	149.5	4.5	102.5	64.5	57.5	17.5	26	38	58
BSG-10	85	45	47	67	87.5	146	20.7	62	124	285.3	110	157	6	110	72	65	21.5	32	45	65

Note: For dimensions of the valve mounting surface, see the dimensional drawing (C-9) of the sub-plate used together.

Options- Models with Vent Restrictor

A-BST-03,06,10

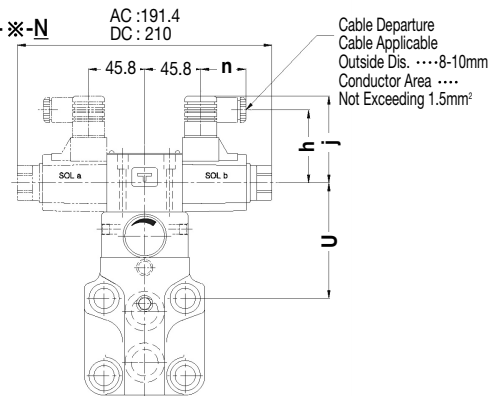


Model Numbers	d	e	f
A-BSG-03	257.3	162	115
A-BSG-06	281.3	179.5	132.5
A-BSG-10	315.3	187	140

For other dimensions, refer to the above pictures.

Models with Plug-in Connector (Option)

03
BST-06-※-※-※-N
10



Model Numbers	Coil Type	h	j	n
AC Solenoid	A※	53	65	39
DC Solenoid	D※	64	76	39

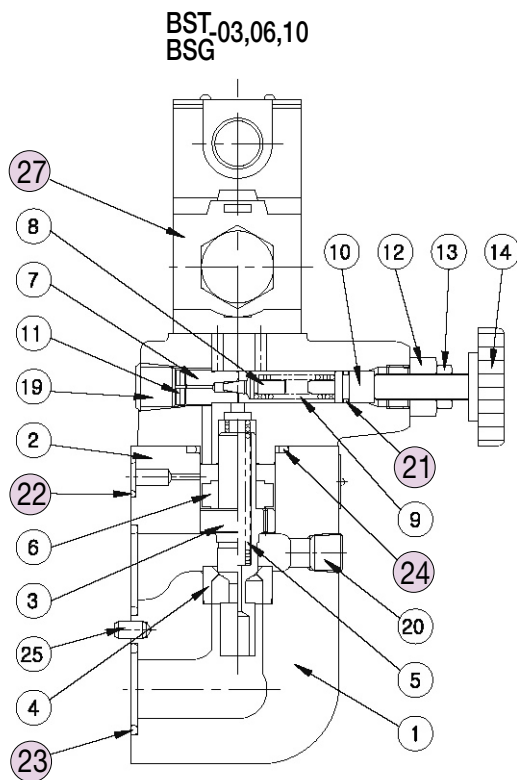
For other dimensions, refer to the above pictures.



CAUTION

When making replacement of seals, please do it carefully after reading through the relevant instructions in the Operator's Manual.

List of Seals



BST-03, 06, 10

Item	Name of Parts	Part Numbers			Qty
		BST-03	BST-06	BST-10	
21	O-Ring	JIS B 2401 -1A-P9	JIS B 2401 -1A-P9	JIS B 2401 -1A-P9	1
24	O-Ring	JIS B 2401 -1B-P32	JIS B 2401 -1B-P32	JIS B 2401 -1B-P42	1

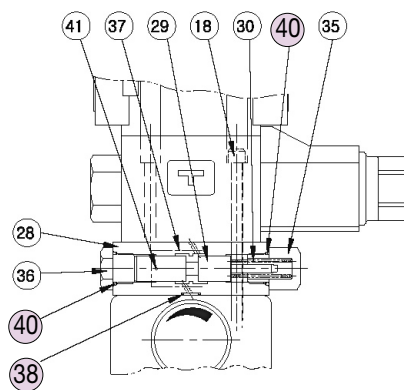
BSG-03, 06, 10

Item	Name of Parts	Part Numbers			Qty
		BSG-03	BSG-06	BSG-10	
21	O-Ring	JIS B 2401 -1A-P9	JIS B 2401 -1A-P9	JIS B 2401 -1A-P9	1
22	O-Ring	JIS B 2401 -1B-P9	JIS B 2401 -1B-P11	JIS B 2401 -1B-P9	1
23	O-Ring	JIS B 2401 -1B-P18	JIS B 2401 -1B-P28	JIS B 2401 -1B-P32	2
24	O-Ring	JIS B 2401 -1B-P32	JIS B 2401 -1B-P32	JIS B 2401 -1B-P42	1

Note: For pilot valves, item 27 see DSG-01 series solenoid operated directional valves in page E-19.

A-BST-03,06,10 BSG

Options-Models with Vent Restrictor

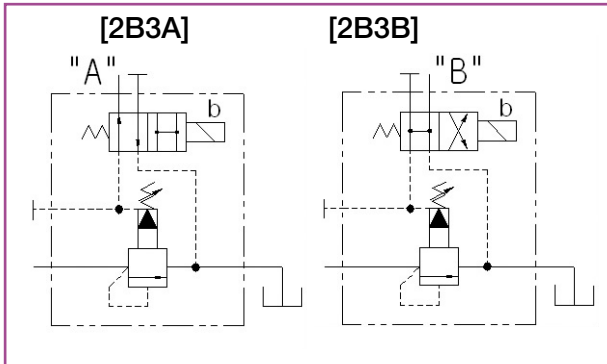


A-BST-03,06,10 BSG

Item	Name of Parts	Part Numbers	Qty
38	O-Ring	JIS B 2401-1B-P8	2
40	O-Ring	JIS B 2401-1B-P14	2

Model : BSG-03/06-※-2B3A(B)-※-※-6078 SOLENOID CONTROLLED RELIEF VALVE

■ KS Graphic Symbol



■ Features

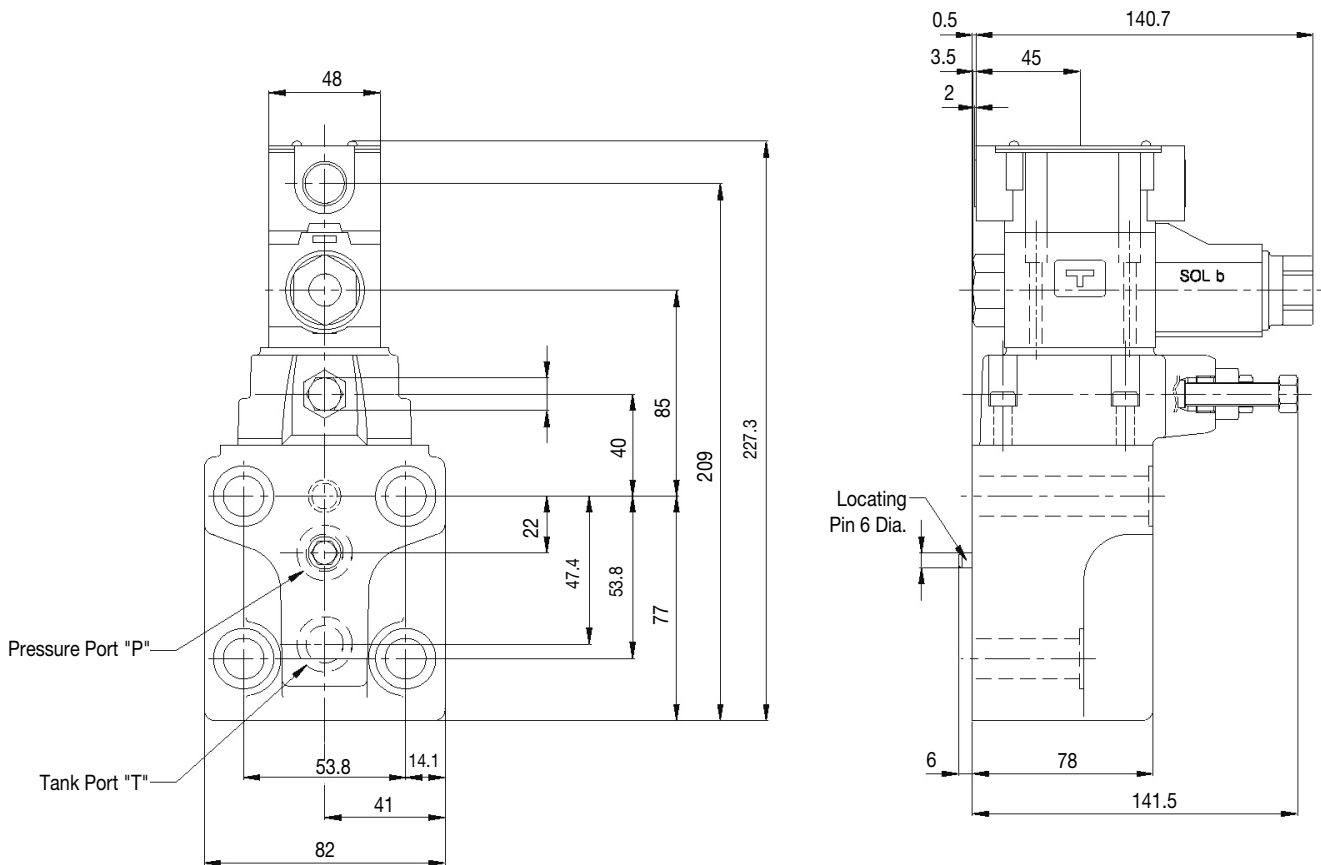
- These valve are a combination of relief valve and solenoid valve.
- Pump pressure may be unloaded remotely by an electrical signal to the solenoid.
- These valves are able to control pressure twice by using pilot valve.
- The direction of solenoid is located by revolution 90° from the standard. Solenoid valve is only possible 2B3A and 2B3B type.
- Pressure adjustment handle is manufactured by socket head

■ Ratings

- Basic specification is the same as BSG-03/06 series.

■ Drawing of exterior and mouting

BSG-03-※-2B3A(B)-※-※-6078



※ Specification of mounting is the same as BSG-03 series.

C



Solenoid Controlled Relief Valves

Model : BSG-03/06-※-2B3A(B)-※-※-6078 SOLENOID CONTROLLED RELIEF VALVE

■ Drawing of exterior and mouting

BSG-06-※-2B3A(B)-※-※-6078

