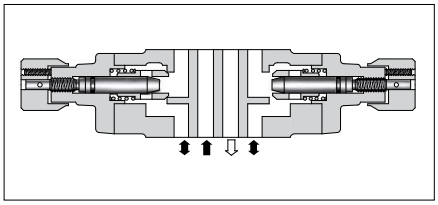
Throttle and Check Modular Valves

Specifications

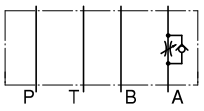
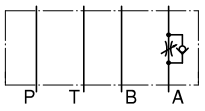
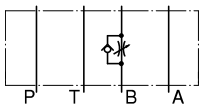
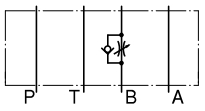
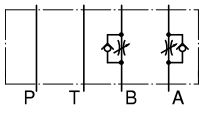
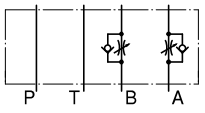
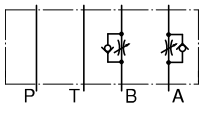
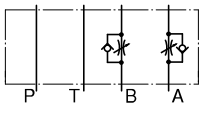
Model Numbers	Max. Operating Pressure MPa	Max. Flow L/min
MS＊-01-＊＊-70	35	80



Model Number Designation

MSW	–01	–X	Y	–70
Series Number	Valve Size	Direction of Flow ("A" Line)	Direction of Flow ("B" Line)	Design Number
MSA: Throttle and Check Valve for A-Line	**01**	**X:** Meter-out **Y:** Meter-in	—	**70**
MSB: Throttle and Check Valve for B-Line		—	**X:** Meter-out **Y:** Meter-in	
MSW: Throttle and Check Valve for A&B-Lines		**X:** Meter-out **Y:** Meter-in		
		X: Meter-out	**Y:** Meter-in	
		Y: Meter-in	**X:** Meter-out	

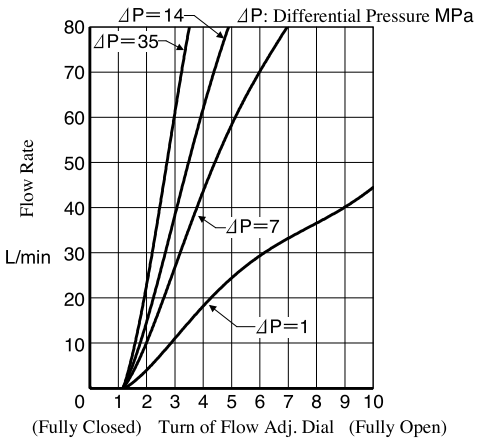
Graphic Symbols

Meter-out	Meter-in
 MSA-01-X	 MSA-01-Y
 MSB-01-X	 MSB-01-Y
 MSW-01-X	 MSW-01-Y
Meter-out・Meter-in	**Meter-in・Meter-out**
 MSW-01-XY	 MSW-01-YX

Typical Performance Characteristics

Hydraulic Fluid: Viscosity 35 mm²/s, Specific Gravity 0.850

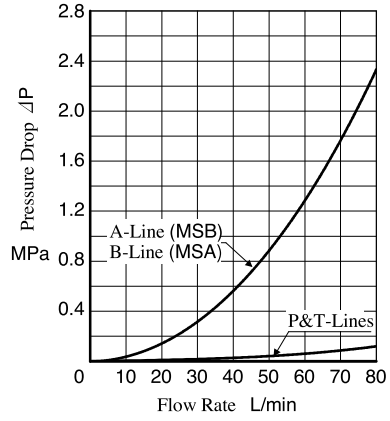
Metered Flow vs. Dial Position



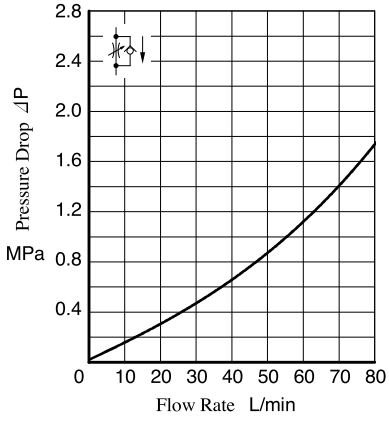
Instructions

To make flow rate adjustment, loosen locking screw for the dial and turn the flow adjustment dial cloackwise. For a decrease of flow turn the dial clockwise. Be sure to re-tighten the locking screw frimly after the adjustment of the flow rate.

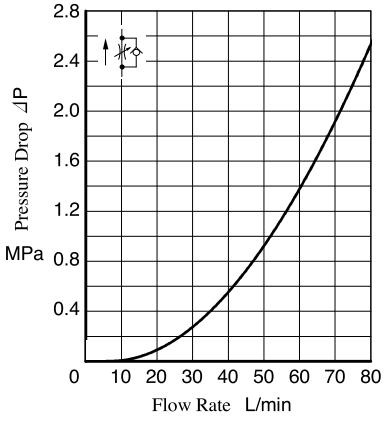
Pressure Drop



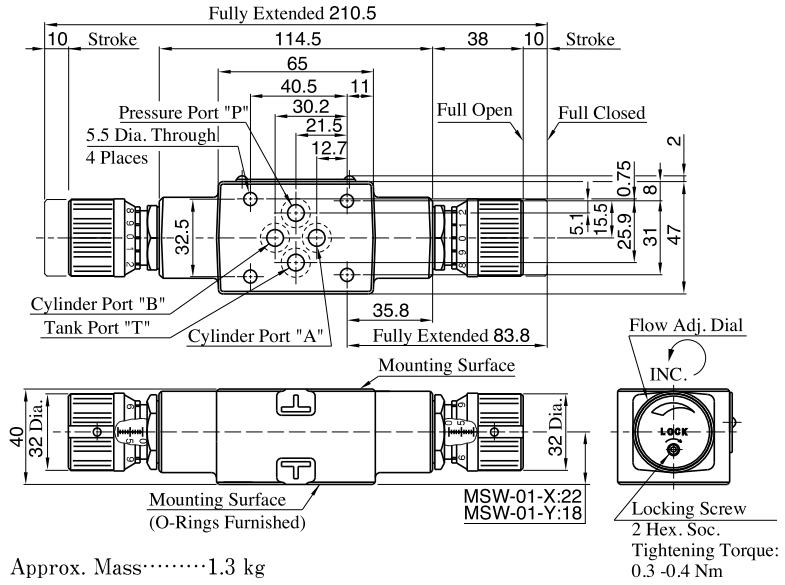
Pressure Drop for Free Flow



Pressure Drop at Throttle Fully Open

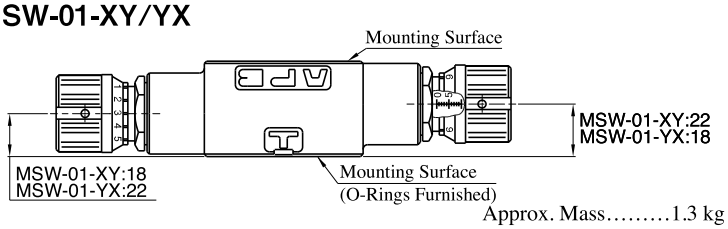


MSW-01-X/Y



Approx. Mass·····1.3 kg

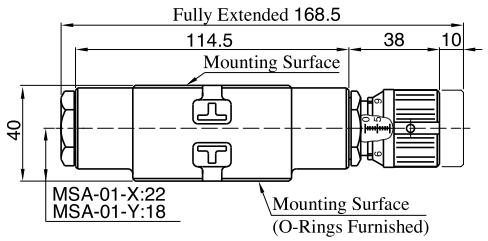
MSW-01-XY/YX



Approx. Mass.....1.3 kg

For other dimensions, refer to "MSW-01-X/Y" in the drawing above.

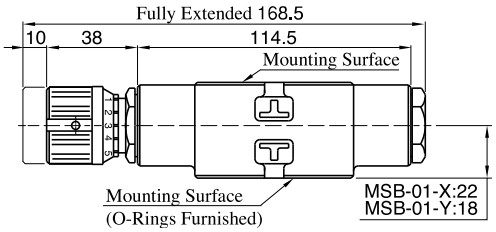
MSA-01-X/Y



Approx. Mass.....1.15 kg

For other dimensions, refer to "MSW-01" in the drawing left.

MSB-01-X/Y

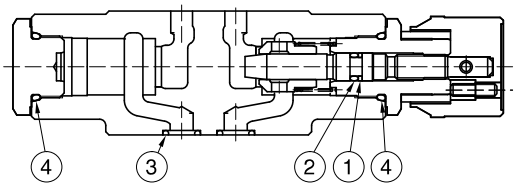


Approx. Mass.....1.15 kg

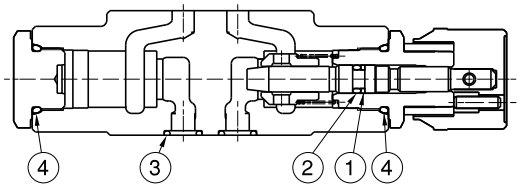
For other dimensions, refer to "MSW-01" in the drawing left.

List of Seals

MSA-01, MSB-01, MSW-01



MSA-01-X



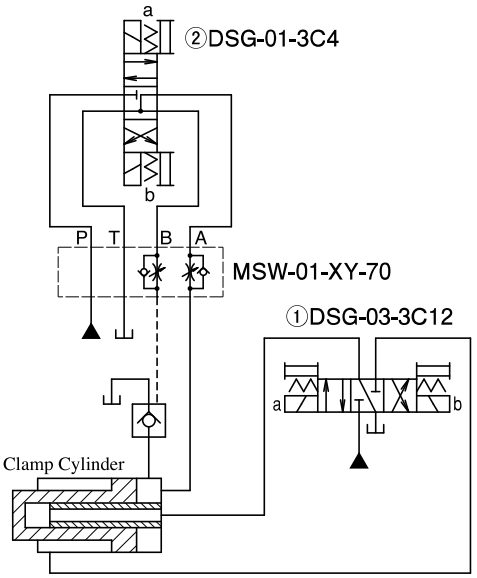
MSA-01-Y

- MSB-01: Flow control part is built in the left side.
- MSW-01: Flow control part is built in the both left and right sides.

Item	Name of Parts	Part Numbers	Qty.	
			MSA,MSB	MSW
1	Back-up Ring	BR JIS B 2401-4-T2-P6	1	2
2	O-Ring	OR NBR-70-1 P6-N	1	2
3	O-Ring	OR NBR-90 P9-N	4	4
4	O-Ring	OR NBR-90 P18-N	2	2

Application

- Circuit of Clamp Cylinder for Injection Molding Machine



Operation Sequence

Clamp Cylinder	Advance	End Point Pressurization	Decompression	Retreat
Solenoid Operated Directional Valve ①	Sol.a ON	→	Center Position	Sol.b ON
Solenoid Operated Directional Valve ②	Sol.b ON	Sol.a ON	Sol.b ON	→