

# 01 Series Modular Valves

## Type of Modular Valve

Class	Name and Model Numbers	Graphic Symbols	Page	Class	Name and Model Numbers	Graphic Symbols	Page	
Solenoid Operated Directional Valve	(S-) DSG-01-**-70 E-DSG-01-**-70 T-DSG-01-**-70 G-DSG-01-**-70		★	Flow Control Valves	Throttle Valves (for "P-Line") MSP-01-50		F-29	
					Throttle Valves (for "T-Line") MST-01-50		F-29	
Pressure Control Valves	Relief Valves (for "P-Line") MBP-01-**-70		F-12		Check and Throttle Valves (for "P-Line") MSCP-01-30		F-30	
	Relief Valves (for "A-Line") MBA-01-**-70		F-12		Throttle and Check Valves (for "A-Line", Meter-out) MSA-01-X-70		F-31	
	Relief Valves (for "B-Line") MBB-01-**-70		F-12		Throttle and Check Valves (for "A-Line", Meter-in) MSA-01-Y-70		F-31	
	Reducing Valves (for "P-Line") MRP-01-**-70		F-14		Throttle and Check Valves (for "B-Line", Meter-out) MSB-01-X-70		F-31	
	Reducing Valves (for "A-Line") MRA-01-**-70		F-14		Throttle and Check Valves (for "B-Line", Meter-in) MSB-01-Y-70		F-31	
	Reducing Valves (for "B-Line") MRB-01-**-70		F-14		Throttle and Check Valves (for "A&B-Lines", Meter-out) MSW-01-X-70		F-31	
	Two Pressure Reducing Valves (for "P-Line") MRDP-01-**-10		F-16		Throttle and Check Valves (for "A&B-Lines", Meter-in) MSW-01-Y-70		F-31	
	Brake Valves MBR-01-**-30		F-18		Throttle and Check Valves (for "A&B-Lines", Meter-out, Meter-in) MSW-01-XY-70		F-31	
	Sequence Valves (for "P-Line") MHP-01-**-70		F-19		Directional Control Valves	Check Valves (for "P-Line") MCP-01-**-70		F-33
	Counterbalance Valves (for "A-Line") MHA-01-**-70		F-19			Check Valves (for "A-Line") MCA-01-**-70		F-33
	Counterbalance Valves (for "B-Line") MHB-01-**-70		F-19			Check Valves (for "B-Line") MCB-01-**-70		F-33
	Pressure Switch Valves (for "P-Line") MJP-01-**-10		F-22			Check Valves (for "T-Line") MCT-01-**-70		F-33
	Pressure Switch Valves (for "A-Line") MJA-01-**-10		F-22			Check Valves (for "A&B-Line") MCW-01-**-70		F-33
	Pressure Switch Valves (for "B-Line") MJB-01-**-10		F-22	Anti-Cavitation Valves MAC-01-30			F-35	
	Pressure Switch Valves (for "A&B-Line") MJW-01-J-**-10		F-22	Pilot Operated Check Valves (for "A-Line") MPA-01-**-70			F-36	
Flow Control Valves (for "P-Line") MFP-01-10		F-25	Pilot Operated Check Valves (for "B-Line") MPB-01-**-70			F-36		
Flow Control and Check Valves (for "A-Line", Meter-out) MFA-01-X-10		F-25	Pilot Operated Check Valves (for "A&B-Lines") MPW-01-**-70			F-36		
Flow Control and Check Valves (for "A-Line", Meter-in) MFA-01-Y-10		F-25	Modular Plates and Mounting Bolts	End Plates (Blocking Plates) MDC-01-A-30			F-38	
Flow Control and Check Valves (for "B-Line", Meter-out) MFB-01-X-10		F-25		End Plates (Bypass plates) MDC-01-B-30			F-38	
Flow Control and Check Valves (for "B-Line", Meter-in) MFB-01-Y-10		F-25		Connecting Plates (for "P&A-Lines") MDS-01-PA-30			F-38	
Flow Control and Check Valves (for "A&B-Lines", Meter-out) MFW-01-X-10		F-25		Connecting Plates (for "P&B-Lines") MDS-01-PB-30			F-38	
Flow Control and Check Valves (for "A&B-Lines", Meter-in) MFW-01-Y-10		F-25		Connecting Plates (for "A&T-Lines") MDS-01-AT-30			F-38	
Temperature Compensated Throttle and Check Valves (for "A-Line", Meter-out) MSTA-01-X-10		F-27		Base Plates MMC-01-**-40			F-39	
Temperature Compensated Throttle and Check Valves (for "B-Line", Meter-out) MSTB-01-X-10		F-27		Bolt Kits MBK-01-**-70		F-41		
Temperature Compensated Throttle and Check Valves (for "A&B-Lines", Meter-out) MSTW-01-X-10		F-27						

★ Please refer to the catalog page of "E: Directional Control Valves"

# Relief Modular Valves

## Specifications

Model Numbers	Max. Operating Pressure MPa	Max. Flow L/min
MB *-01-**-70	35	60

## Model Number Designation

MBP	-01	-B	-B	-70
Series Number	Valve Size	Pres. Adj. Range MPa	Pres. Adj. Screw Position	Design Number
MBP: Relief Valve for P-Line	01	<b>B: ★-7</b> <b>C: 3.5-14</b> <b>H: 7-21</b> <b>K: 14-35</b>	<b>None: A Port Side</b> <b>B: B Port Side</b>	70
MBA: Relief Valve for A-Line				
MBB: Relief Valve for B-Line				

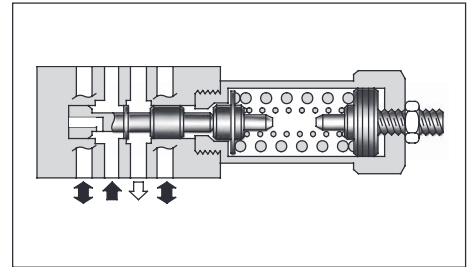
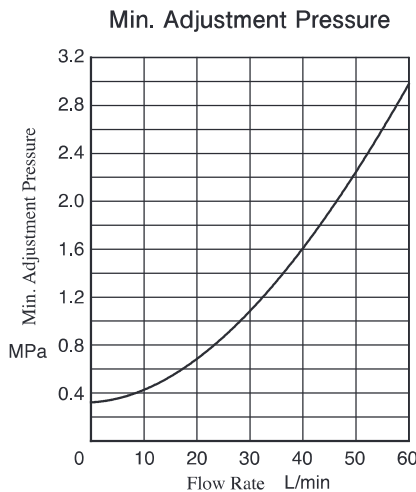
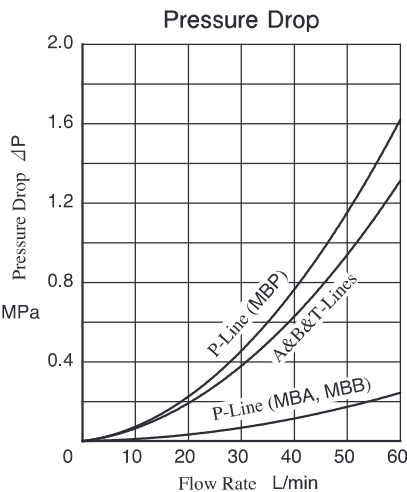
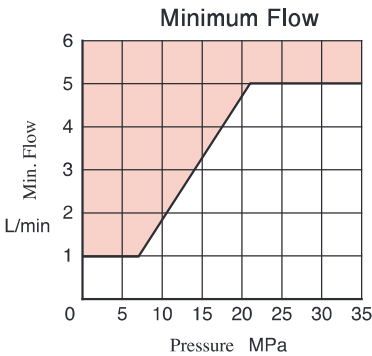
★See the "Min. Adjustment Pressure" of this page.

## Instructions

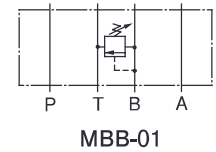
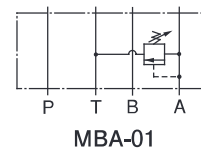
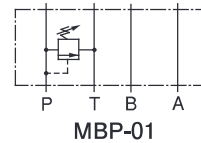
- The minimum adjustment pressure equals the value obtained from the minimum adjustment pressure characteristics plus the tank line back pressure of this page. This back pressure should include the value of the T-line pressure drop characteristics of the valves stacked to the base plate side of the modular valve.
- To make pressure adjustment, loosen the lock nut and turn the pressure adjustment screw clockwise or anti-clockwise. For an increase of pressure, turn the screw clockwise. Be sure to re-tighten the lock nut firmly after making adjustment to the pressure.
- In case of a small flow, the setting pressure may become unstable. To avoid this, refer to the minimum flow characteristic curve of the next page and use the valve within a range as shown with .

## Typical Performance Characteristics

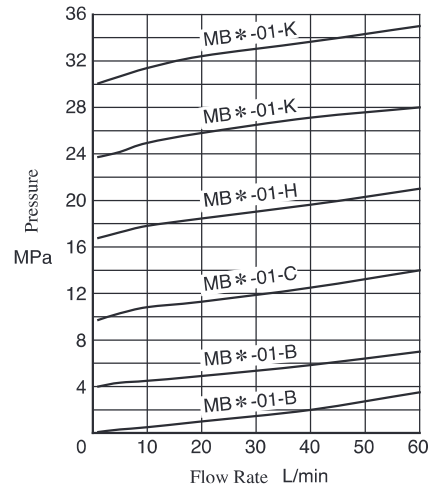
Hydraulic Fluid: Viscosity 35 mm<sup>2</sup>/s, Specific Gravity 0.850



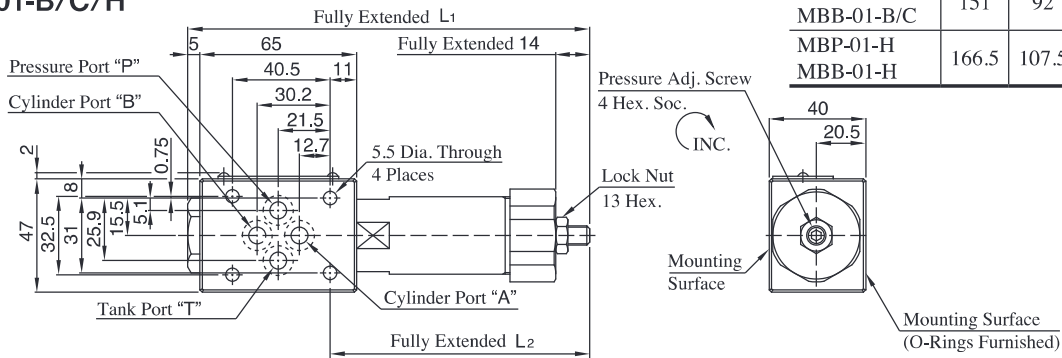
## Graphic Symbols



## Nominal Override Characteristics

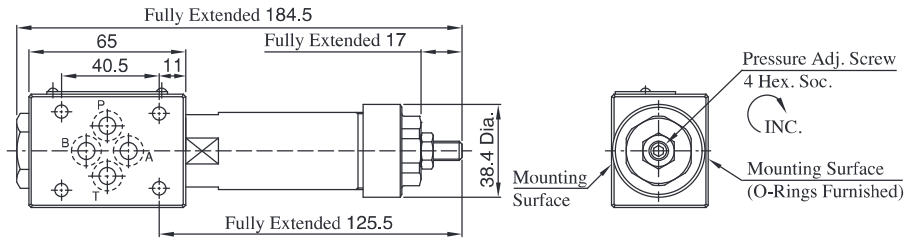


### MBP-01-B/C/H MBB-01-B/C/H



Model Numbers	L1	L2	Mass kg
MBP-01-B/C MBB-01-B/C	151	92	1.15
MBP-01-H MBB-01-H	166.5	107.5	1.25

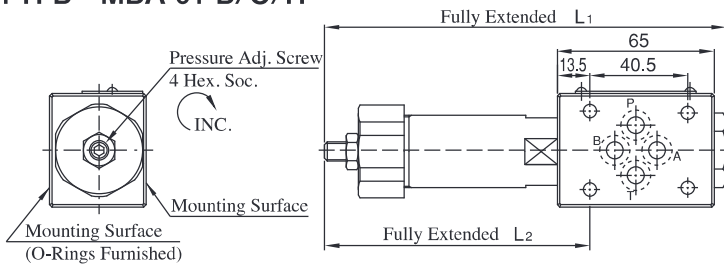
### MBP-01-K MBB-01-K



Approx. Mass..... 1.35 kg

● For other dimensions, refer to the drawing above (MBP-01-B/C/H).

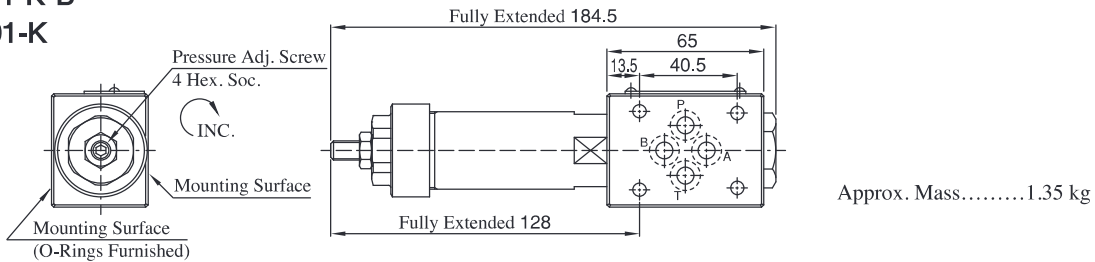
### MBP-01-B-B · MBP-01-C-B MBP-01-H-B · MBA-01-B/C/H



Model Numbers	L1	L2	Mass kg
MBP-01-B-B MBP-01-C-B	151	94.5	1.15
MBP-01-H-B MBA-01-H	166.5	110	1.25

● For other dimensions, refer to the drawing above (MBP-01-B/C/H).

### MBP-01-K-B MBA-01-K

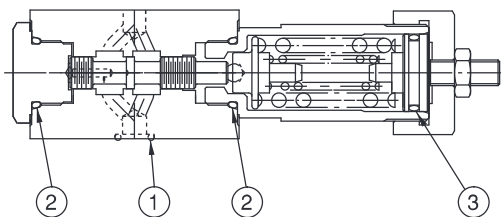


Approx. Mass..... 1.35 kg

● For other dimensions, refer to the drawing above (MBP-01-B/C/H).

### List of Seals

#### MBP-01 MBA-01 MBB-01



● MBP/MBB-01- \*-B, MBA-01

The pressure adjustment part is assembled on the left side.

Item	Name of Parts	Part Numbers	Qty.
1	O-Ring	OR NBR-90 P9-N	4
2	O-Ring	OR NBR-90 P18-N	2
3	O-Ring	OR NBR-70-1 P20-N (MB *-01-B/C/H(-B)) OR NBR-70-1 P22-N (MB *-01-K(-B))	1