

03 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 Valves	(S-) DSG-03-***-50 E-DSG-03-***-D-50 T-DSG-03-***-D24-50 G-DSG-03-***-51		★				
Pressure Control Valves	Relief Valves (for "P-Line") MBP-03-**-70		F-48	Flow Control Valves	Temperature Compensated Throttle and Check Valves (for "A&B-Lines", Meter-out) MSTW-03-X-20		F-58
	Relief Valves (for "A-Line") MBA-03-**-70		F-48		Throttle Valves (for "P-Line") MSP-03-30		F-60
	Relief Valves (for "B-Line") MBB-03-**-70		F-48		Check and Throttle Valves (for "P-Line") MSCP-03-20		F-61
	Relief Valves (for "A&B-Lines") MBW-03-**-70		F-48		Throttle and Check Valves (for "A-Line", Meter-out) MSA-03-X-70		F-62
	Reducing Valves (for "P-Line") MRP-03-**-70		F-50		Throttle and Check Valves (for "A-Line", Meter-in) MSA-03-Y-70		F-62
	Reducing Valves (for "A-Line") MRA-03-**-70		F-50		Throttle and Check Valves (for "B-Line", Meter-out) MSB-03-X-70		F-62
	Reducing Valves (for "B-Line") MRB-03-**-70		F-50		Throttle and Check Valves (for "B-Line", Meter-in) MSB-03-Y-70		F-62
	Reducing Valves for Low Pressure Setting (for "P-Line") MRLP-03-10		F-52		Throttle and Check Valves (for "A&B-Lines", Meter-out) MSW-03-X-70		F-62
	Reducing Valves for Low Pressure Setting (for "A-Line") MRLA-03-10		F-52	Throttle and Check Valves (for "A&B-Lines", Meter-in) MSW-03-Y-70		F-62	
	Reducing Valves for Low Pressure Setting (for "B-Line") MRLB-03-10		F-52	Directional Control Valves	Check Valves (for "P-Line") MCP-03-**-70		F-64
	Sequence Valves (for "P-Line") MHP-03-**-20		F-54		Check Valves (for "A-Line") MCA-03-**-70		F-64
	Counterbalance Valves (for "A-Line") MHA-03-**-20		F-54		Check Valves (for "B-Line") MCB-03-**-70		F-64
	Counterbalance Valves (for "B-Line") MHB-03-**-20		F-54		Check Valves (for "T-Line") MCT-03-**-70		F-64
	Flow Control Valves (for "P-Line") MFP-03-11		F-56		Check Valves (for "A&B-Lines") MCW-03-**-70		F-64
Flow Control and Check Valves (for "A-Line", Meter-in) MFA-03-X-11		F-56	Check Valves (for "P&T-Lines") MCPT-03-P-**-T-10			F-66	
Flow Control and Check Valves (for "A-Line", Meter-in) MFA-03-Y-11		F-56	Anti-Cavitation Valves MAC-03-10			F-67	
Flow Control and Check Valves (for "B-Line", Meter-out) MFB-03-X-11		F-56	Pilot Operated Check Valves (for "A-Line") MPA-03-**-70			F-68	
Flow Control and Check Valves (for "B-Line", Meter-in) MFB-03-Y-11		F-56	Pilot Operated Check Valves (for "B-Line") MPB-03-**-70			F-68	
Flow Control and Check Valves (for "A&B-Lines", Meter-out) MFW-03-X-11		F-56	Pilot Operated Check Valves (for "A&B-Lines") MPW-03-**-70			F-68	
Flow Control and Check Valves (for "A&B-Lines", Meter-in) MFW-03-Y-11		F-56	Modular Plates and Mounting Bolts		End Plates (Blocking Plates) MDC-03-A-10		F-70
Temperature Compensated Throttle and Check Valves (for "A-Line", Meter-out) MSTA-03-X-20		F-58			End Plates (Bypass Plates) MDC-03-B-10		F-70
Temperature Compensated Throttle and Check Valves (for "B-Line", Meter-out) MSTB-03-X-20		F-58		Connecting Plates MDS-03-10		F-70	
				Base Plates MMC-03-T-**-21		F-71	
				Bolt Kits MBK-03-**-10		F-73	

★ Refer to the relevant pages of catalog "E: DIRECTIONAL CONTROLS"

Reducing Modular Valves for Low Pressure Setting

Specifications

Model Numbers	Max. Operating Pressure MPa	Pres. Adj. Range MPa	Max.Flow L/min
MRL*-03-10	7	0.2-6.5	50*

★ If the pressure is set below 0.8 MPa, the maximum flow is limited. See the "Min. Adjustment Pressure vs. Max. Flow" of this page and during use, stay within the shaded zone on the graph.

Model Number Designation

MRLP	-03	-10
Series Number	Valve Size	Design Number
MRLP:Low Pressure Setting Type Reducing Valve for P-Line	03	10
MRLA:Low Pressure Setting Type Reducing Valve for A-Line		
MRLB:Low Pressure Setting Type Reducing Valve for B-Line		

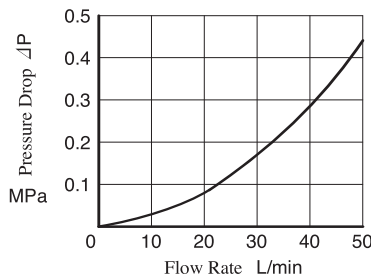
Instructions

If there is a pressure in drain line, it is added to the secondary setting pressure. Hence, drain line must be connected to tank directly with a low back pressure close to atmospheric pressure.

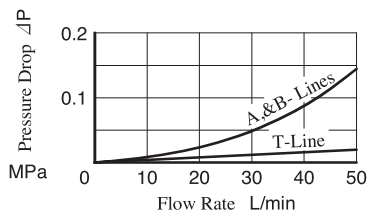
Typical Performance Characteristics

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

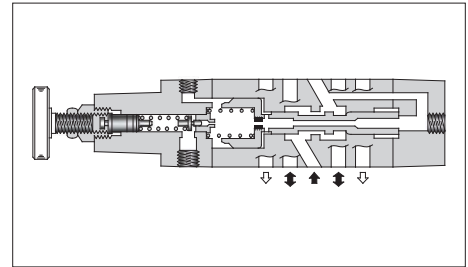
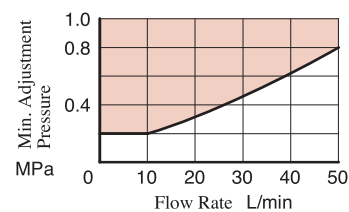
Pres. Drop at Spool Fully Open (P-Line)



Pressure Drop

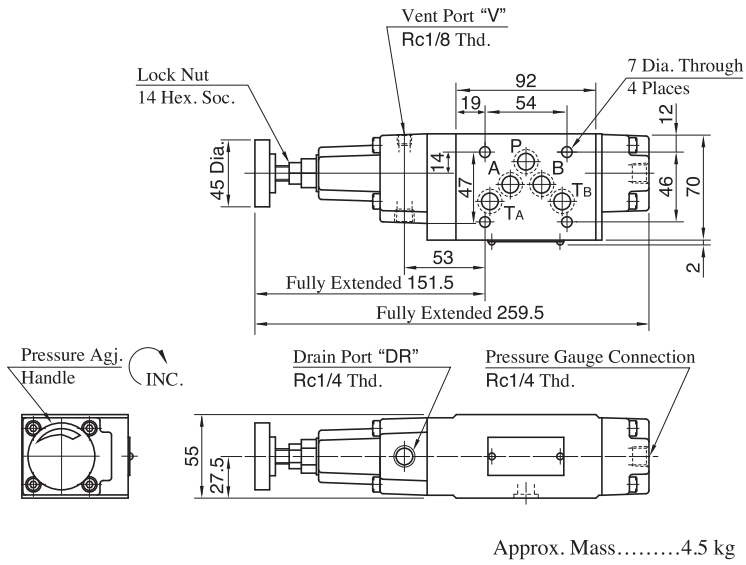


Min. Adjustment Pressure vs. Max. Flow

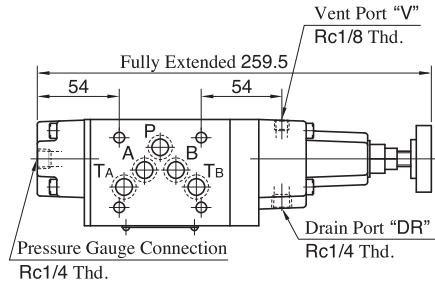


Model Numbers	Graphic Symbols	Graphic Symbols
MRLP-03		
MRLA-03		
MRLB-03		

MRLP-03
MRLB-03



MRLA-03

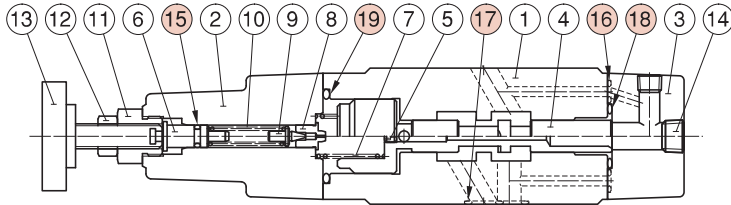


Approx. Mass.....4.5 kg

For other dimensions, refer to "MRLP-03/MRLB-03" in the drawing left.

List of Seals

MRLP-03
MRLA-03
MRLB-03



MRLP-03

- MRLA-03: The pressure adjustment part is assembled on the right side.
- MRLB-03: The cover will be rotated 180 degrees with respect to MRLP.

Item	Name of Parts	Part Numbers	Qty.
15	O-Ring	OR NBR-70-1 P6-N	1
16	O-Ring	OR NBR-90 P6-N	2
17	O-Ring	AS568-014 (NBR-90)	5
18	O-Ring	OR NBR-90 P22-N	1
19	O-Ring	OR NBR-90 P32-N	1