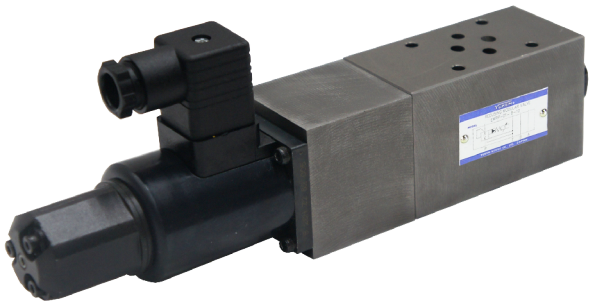
Pub.ELH-1408

Ideal for automation of machine tool chuck pressure control

Proportional Electro-Hydraulic Reducing Modular Valves



Features

Simpler
- Proportional pressure control by input signal
- Easy adjustment of workpiece chuck pressure

Compact
- Modularization allows integration into existing hydraulic circuits
- Smaller machine size and easier piping

High Accuracy
- Hysteresis : 3 % or less

Reliability
- Prevents oil leakage problems by eliminating piping

Specifications

Max. Operating Pressure	25	MPa
Max. Tank-line Back Pressure	2.5	MPa
Max. Flow	30	L/min
Pressure Adj. Range	B : 0.5 - 7.0	MPa
	C : 0.7 - 16.0	MPa
Rated Current	B : 850	mA
	C : 950	mA
Coil Resistance	10	Ω
Power Input	10	W
Hysteresis	3% or less	
Mass	3.6	kg

Model number designation

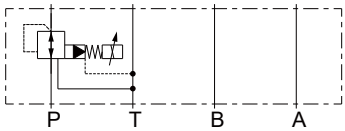
EMRP	- 01	- B	- R	- 10
Series Number	Valve Size	Pressure Adj. Range MPa	Cable Departure Direction (Viewed from solenoid side)	Design Number
EMRP : Proportional Electro-Hydraulic Reducing Modular Valves	01	B : 0.5 - 7.0 C : 0.7 - 16.0	None : Upper(Standard) R : Right L : Left	10

★Phosphate ester type fluids are also supported. When phosphate ester type fluids are used, prefix “F-” to the model number because the special seals (fluororubber) are required to be used.

Recommended Amplifier

AMN-D-10 (For 24 V DC power supply)

Graphic Symbol

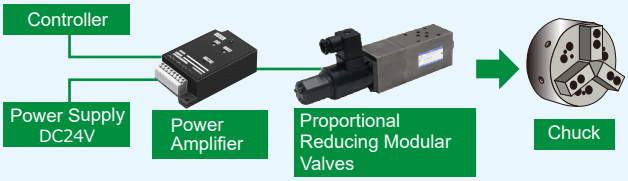


Comparison of Operation and Installation

Current Reducing Modular Valves

- Adjustment to meet the size and thickness of workpiece requires pressure setting with the handle of the control valve
- Must be installed in front of the machine in order to perform adjustments with the control valve handle

New Proportional Reducing Modular Valves

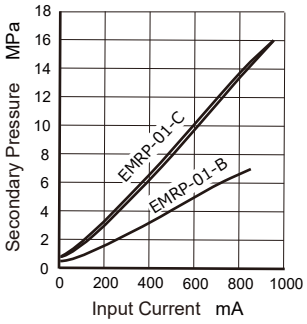


- Chuck pressure easily set at the control board of the machine
- More variations for control valve mounting block installation simplify piping inside the machine

Typical Performance Characteristics

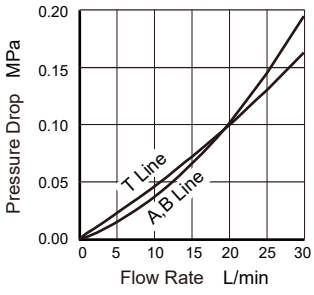
Input Current vs. Secondary Pressure

Primary Pressure : 25 MPa
Viscosity : 30 mm²/s



Flow Rate vs. Pressure Drop

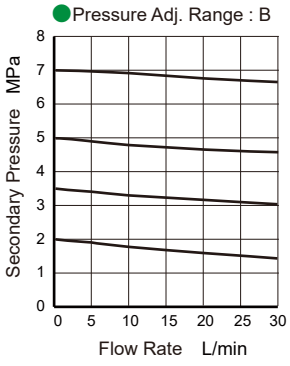
Viscosity : 30 mm²/s



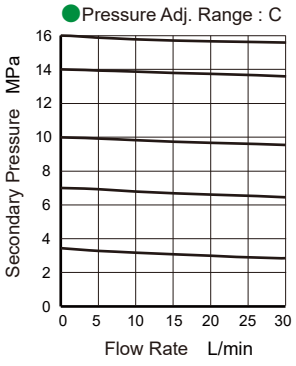
Flow Rate vs. Secondary Pressure

Primary Pressure : 25 MPa
Viscosity : 30 mm²/s

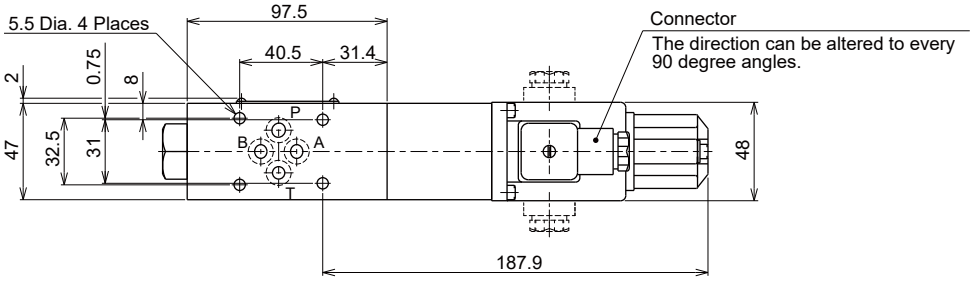
● Pressure Adj. Range : B

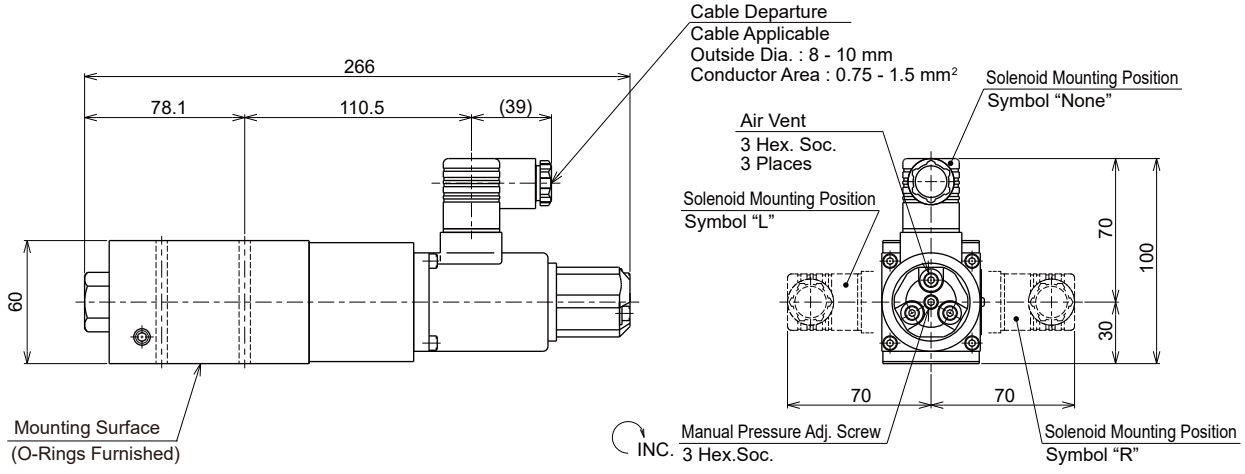


● Pressure Adj. Range : C

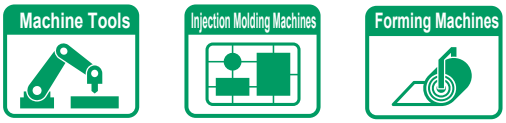


Dimensions





Applications (For Examples)



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