



Air-Operated Valve for Chemical Liquids

LMD*_{2/3}¹ Series

● Orifice: $\varnothing 4$, $\varnothing 6.3$, $\varnothing 8$, $\varnothing 10$, $\varnothing 16$, $\varnothing 20$



Subject to Export Trade Control Ordinances

* For those with Orifice $\varnothing 16$ and $\varnothing 20$

Specifications

Descriptions	LMD0 _{2/3} ¹	LMD3 _{2/3} ¹			LMD4 _{2/3} ¹	LMD5 _{2/3} ¹
Working fluid	Chemical liquids, pure water, air, N ₂ gas (Note 1)					
Fluid temperature °C	5 to 60°C					
Proof pressure MPa	0.8					
Working pressure (A→B) MPa	See the figure "Working pressure" (below)					
Working pressure (B→A) MPa	See the figure "Working pressure" (below)					
Valve seat leakage cm ³ /min	0 (under water pressure)					
Ambient temperature °C	0 to 60					
Frequency	30 times/min or less			20 times/min or less		
Mounting orientation	Free					
Connection	FIT-ONE fitting made by BUENO TECHNOLOGY CO., LTD.					
	1/4" × 5/32" $\varnothing 6 \times \varnothing 4$	3/8" × 1/4"	$\varnothing 10 \times \varnothing 8$	1/2" × 3/8" $\varnothing 12 \times \varnothing 10$	3/4" × 5/8"	1" × 7/8" $\varnothing 25 \times \varnothing 22$
Orifice size	$\varnothing 4$	$\varnothing 6.3$	$\varnothing 8$	$\varnothing 10$	$\varnothing 16$	$\varnothing 20$
Cv	0.32	0.8	1.25	1.8	5.0	8.0
Operation section	Operating pressure MPa	NC 0.35 to 0.5, NO 0.4 to 0.5, double acting 0.35 to 0.4				
	Operation pressure connection port	Rc1/8 (used operation port NC: port Y NO: port X double acting: ports X and Y)				

Note 1: Check compatibility between the material of each component and the working environment of the working fluid. (Refer to page 12 of the compatibility check list.)

Note 2: Refer to page 6 for flow characteristics.

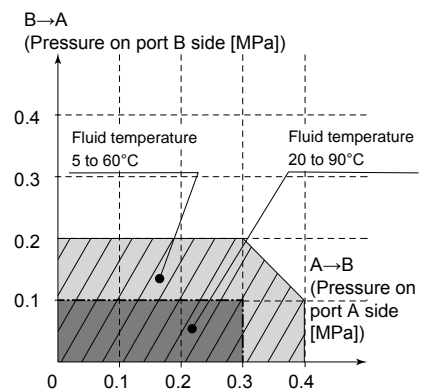
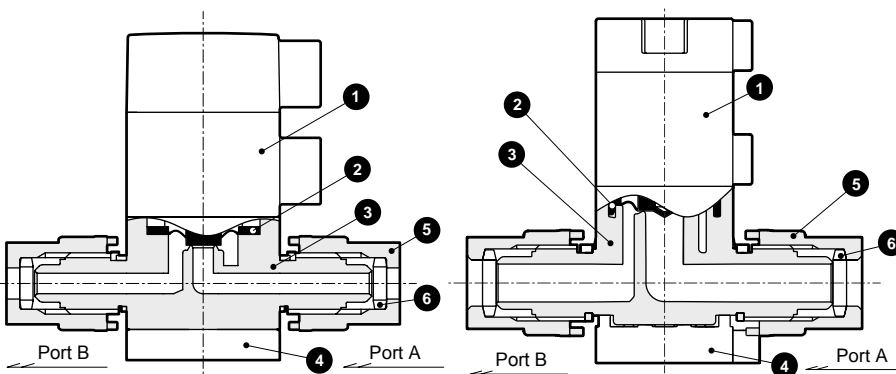
Note 3: The Cv shown is the one at 23°C.

Internal structure and parts list

Working pressure

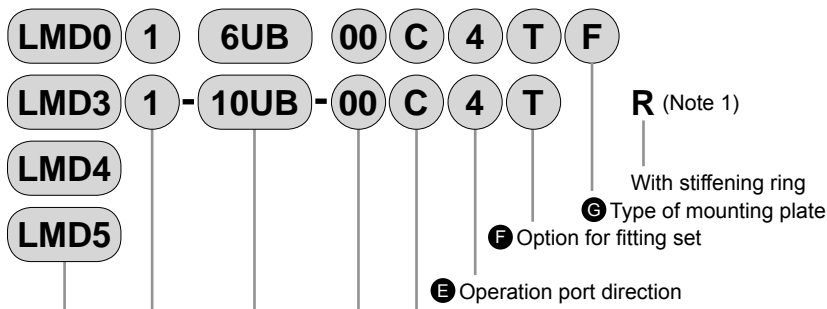
LMD0_{2/3}¹

LMD3_{2/3}¹, LMD4_{2/3}¹, and LMD5_{2/3}¹



No.	Parts name	Material	No.	Parts name	Material
1	Actuator	PPS, etc.	1	Actuator	PPS, etc.
2	Diaphragm	PTFE	2	Diaphragm	PTFE
3	Body	PFA	3	Body	PFA
4	Mounting plate	PP	4	Mounting plate	PP
5	Union nut	PFA	5	Union nut	PFA
6	Impact ring	PVDF	6	Impact ring	PVDF

How to order



Model no.		Model no.								
		LMD0	LMD3		LMD4	LMD5				
		B Connection								
		FIT-ONE fitting integrated type								
		6UB	8BUB	10BUB	10UB	12UB	15BUB	20BUB	25UB	25BUB
		ø6 x ø4 tube connection	1/4" x 5/32" tube connection	3/8" x 1/4" tube connection	ø10 x ø8 tube connection	ø12 x ø10 tube connection	1/2" x 3/8" tube connection	3/4" x 5/8" tube connection	ø25 x ø22 tube connection	1" x 7/8" tube connection
		Orifice	ø4	ø6.3	ø8	ø10	ø16	ø20		
		C Option for actuator								
		Blank	ON • OFF Only					●		
		00	With indicator					●		
		10	With flow rate adjustment					●		
		D Option for metal coating (Note 3)								
		Blank	Not coated					●		
		C	Coated					●		
		E Operation port direction (Note 4)								
		4						●		
		1						●		
		2						●		
		3						●		
		F Option for fitting set (Note 5)								
		Blank	With fitting set					●		
		T	Without fitting set					●		
		G Type of mounting plate (Note 6)								
		F	Flange type		●					
		x	Bottom surface installation type		●					

⚠ Note on model no. selection

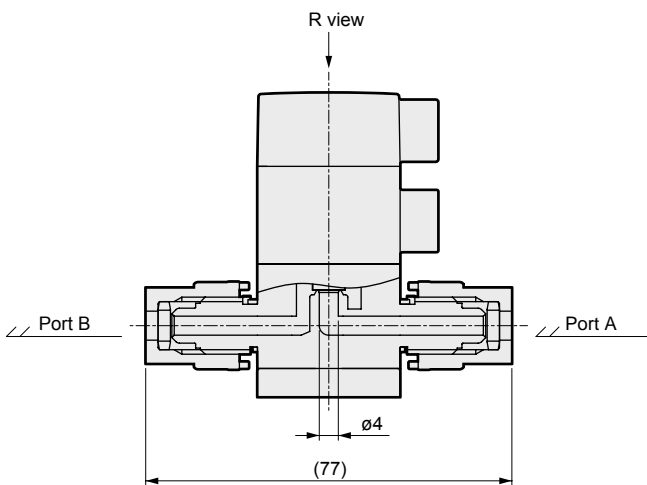
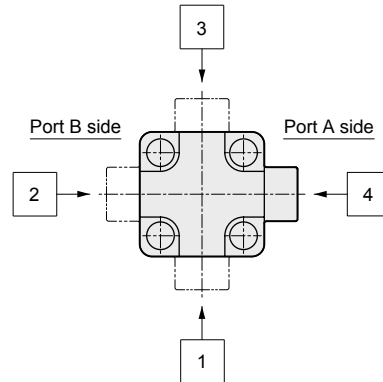
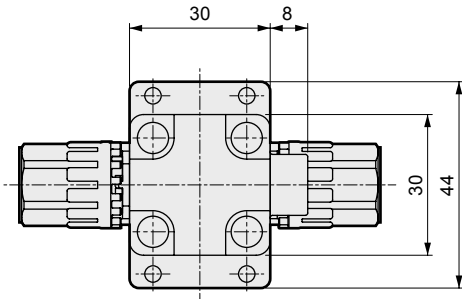
- Note 1:** Precautions for operation port, stiffening ring and piping
 Stiffening ring can be omitted by leaving this section blank. However, metal and PPS fittings should not be used.
 Piping on an operation port may cause a crack of the port or damage on the screw. Keep the tightening force within 0.4 to 0.6 N·m.
- Note 2:** "LMD0" does not support the stiffening ring.
 For undiluted hydrochloric acid or hydrofluoric acid, use the AMD series because they are especially dangerous.
- Note 3:** If working fluid is corrosive fluid, select the metal coating option "Coated".
 For undiluted hydrochloric acid or hydrofluoric acid, use the AMD series which is suitable for those liquid, because they are especially dangerous.
- Note 4:** Refer to "Dimensions" for the operation port direction.
- Note 5:** If "Without fitting set" is selected, a union nut and impact ring are attached. Please purchase the item individually.
- Note 6:** Only "LMD0" is available for mounting plate selection.

LMD0¹/₂/₃ Series

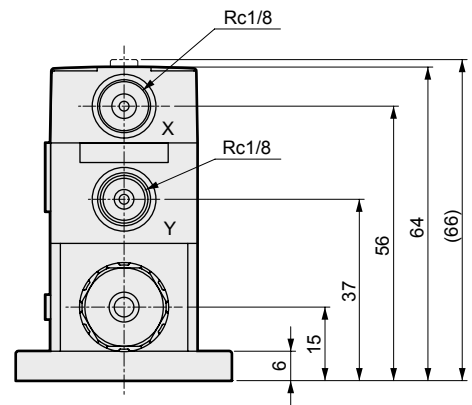
Dimensions

● **Blank** ON/OFF only, LMD0*-*-4*F flange installation

• LMD0¹/₃

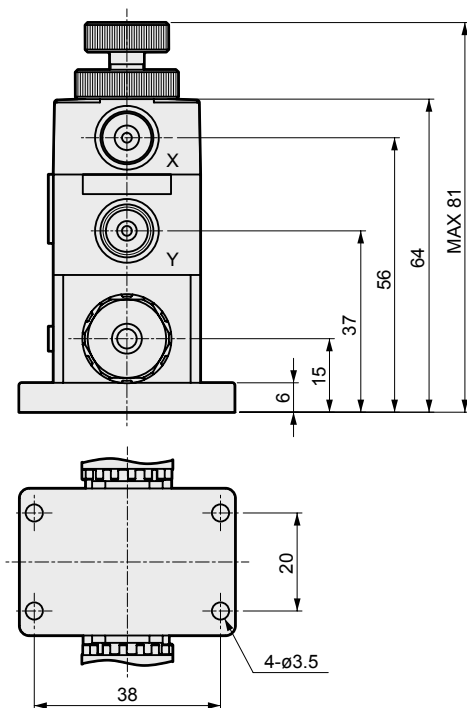


● **00** With indicator: LMD0*-*-00*4*F flange installation



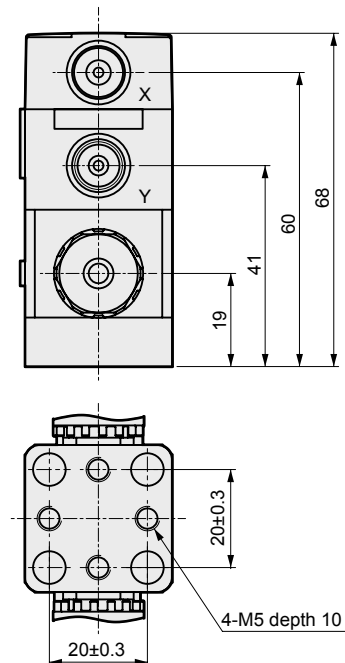
● **10** With flow rate control: LMD0*-*-10*4*F

flange installation



● LMD0*-*-4*X

Bottom surface installation

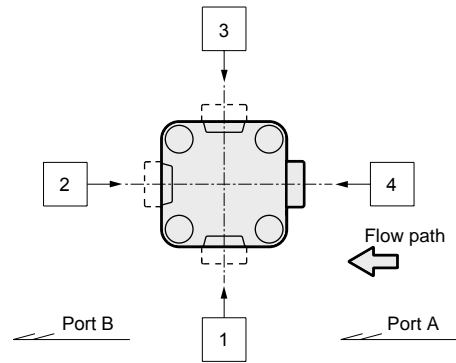
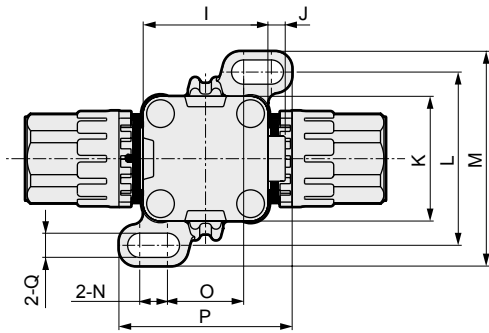


* For "Bottom surface installation", total height will be higher than "flange installation" by 4mm.

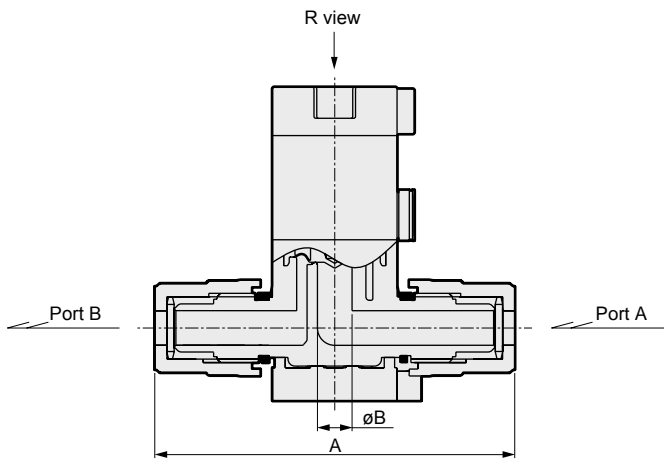
Dimensions

● Blank ON • OFF Only, LMD**-*4*R

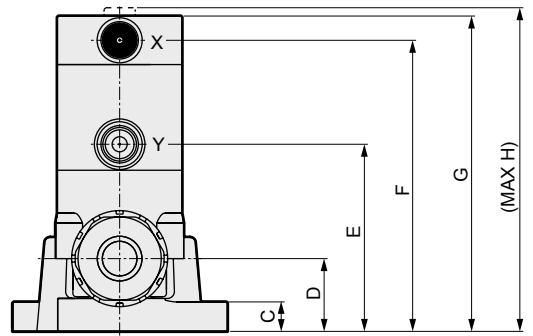
LMD3¹₃, LMD4¹₃



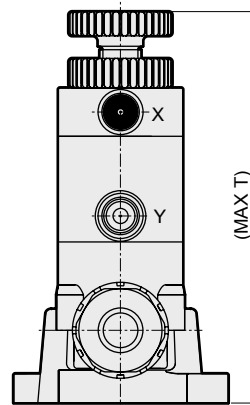
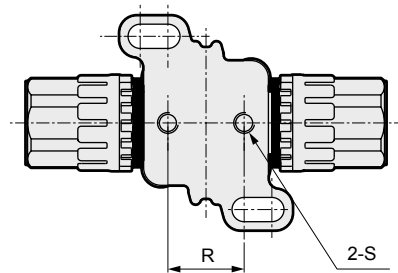
Operation port direction (R view)



● 00 With indicator: LMD**-*-00*4*R



● 10 With flow rate adjustment: LMD**-*-10*4*R

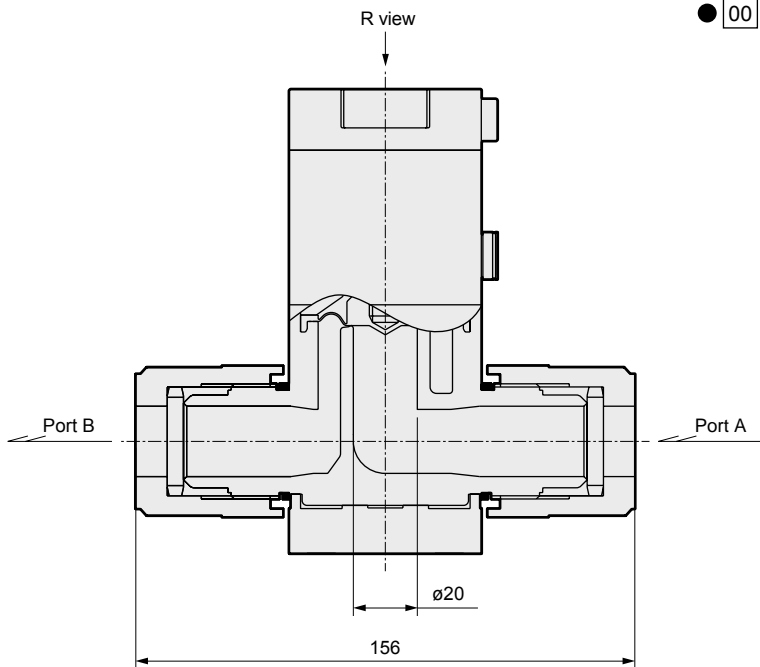
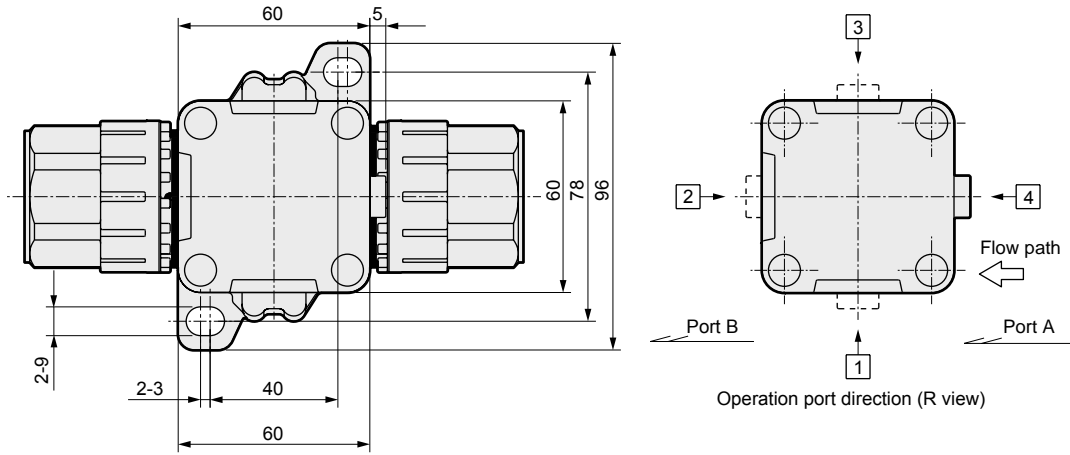


Model	Connected model number	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
LMD3	10BUB	94	6.3	8.5	21	54	84	91	94	37	4.5	37	50	62	8	22	50	7	22±0.3	M6 depth 9	116
	10UB		8																		
	12UB	104	10																		
	15BUB																				
LMD4	20BUB	129	16	9	27	73	110	119	123	46	5	46	64	82	11	28	66	9	28±0.3	M8 depth 10	143

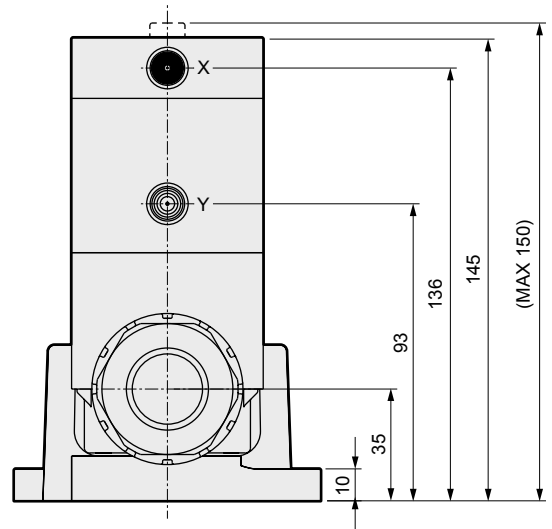
Dimensions

● Blank ON • OFF Only, LMD5*-*-*4*R

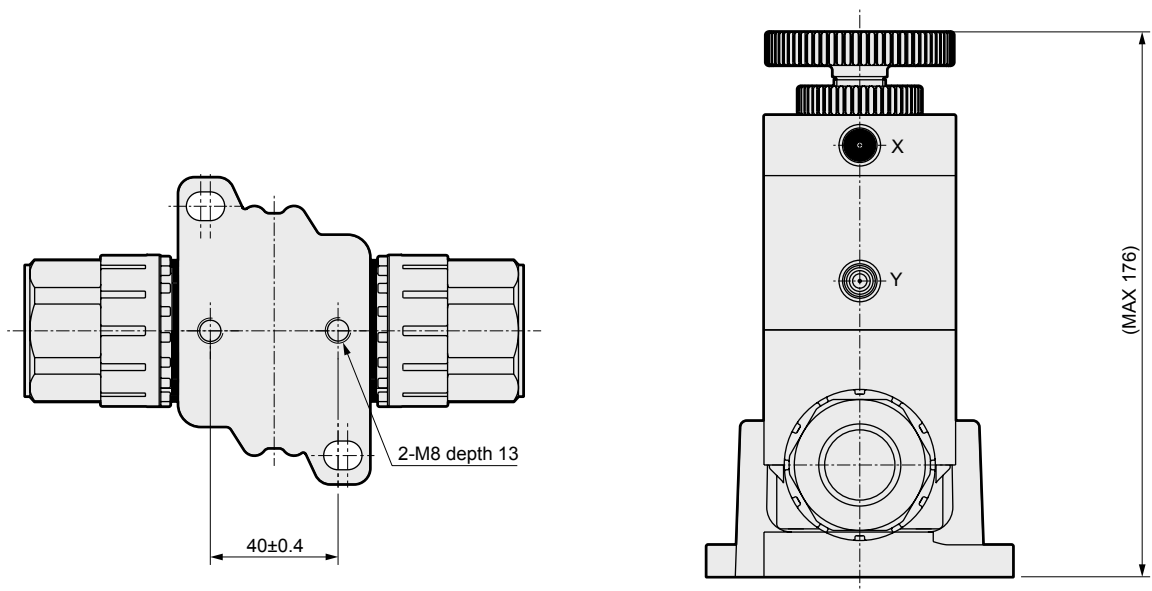
LMD5



● 00 With indicator: LMD5*-*-*00*4*R



● 10 With flow rate adjustment: LMD5*-*-*10*4*R

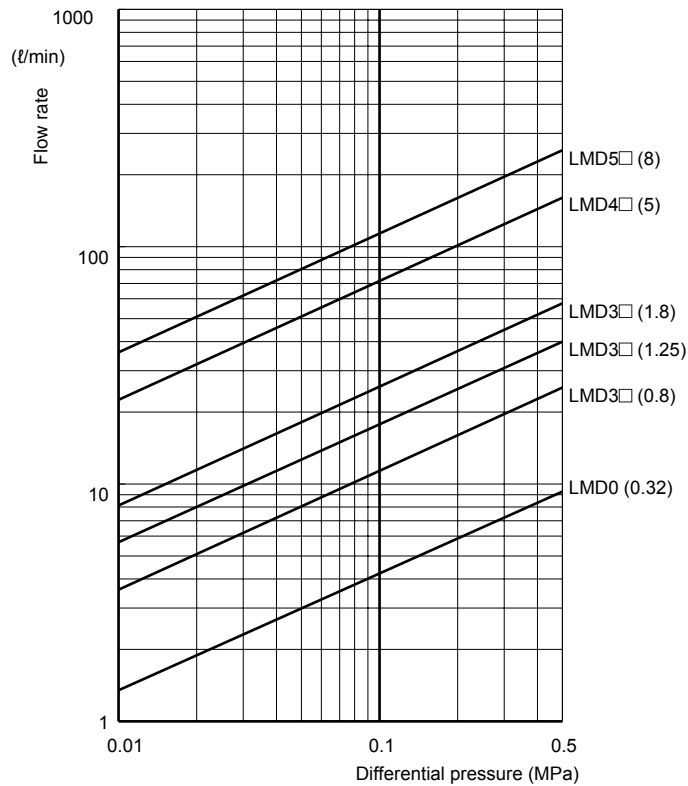


Flow characteristics

LMD3 to LMD5

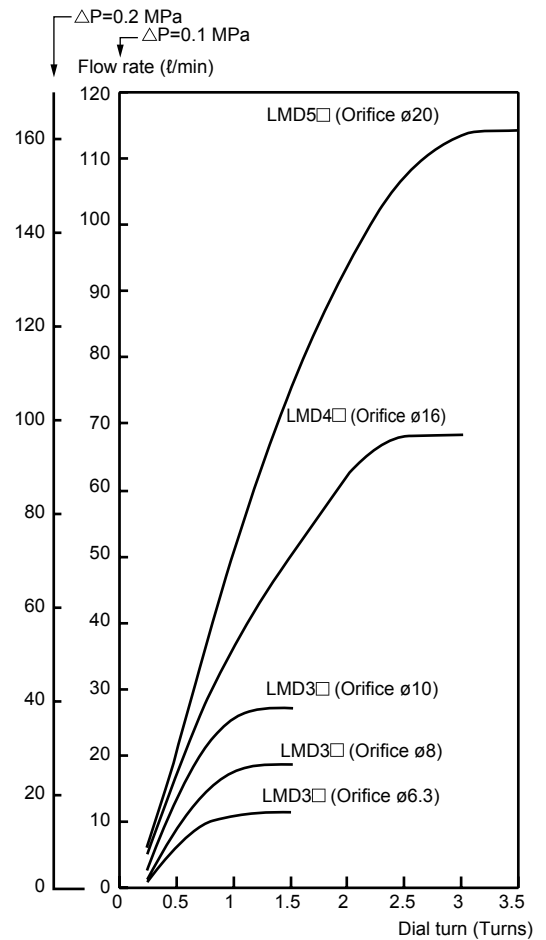
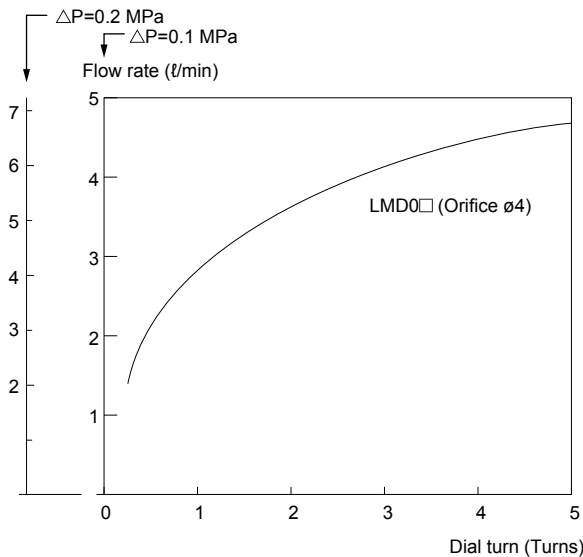
● Flow characteristics (water)

Differential pressure - flow rate in (): Cv value



● With flow rate adjustment (water)

Number of rotations – flow rate



Note 1: Set the adjustment dial 1/4 round or more open from the complete closed position. Using the product with less opening may cause vibration or fluctuation in flow rate depending on the working conditions.