

AVCFV

定流量弁 Constant flow valve

Specialty Valves and Control Products **Dymatrix™**



Control flow rate

AVCFV is not for pressure control but for flow rate control. Use of AVCFV makes the plumbing design easier than use of pressure regulating valve since it is unnecessary to worry about the pressure fluctuation by the influence of the pipe length and back pressure.

Specifications

項 目	Items	Unit	Type
			LF
流 体 温 度	Medium Temperature	℃	10 ~ 90
構 造 耐 圧	Proof Pressure	MPa	0.6 87psi
使 用 圧 力 範 囲	Working Pressure range	MPa	0.1 ~ 0.5 14.5 ~ 72.5psi
最 低 動 作 差 圧	Minimum differential pressure	MPa	0.1 14.5psi
周 囲 温 度	Ambient Temperature	℃	10 ~ 60
取 付 姿 勢	Installation direction	—	Any direction
接 続	Connection	—	Flowell 20 series Flowell 60 series Super Type Pillar Fitting Super 300 Type Pillar Fitting Flare Type Tube
接 続 口 径	Connection tubing size	mm	6×4(6.35×4.35)
参 考 流 量 範 囲	Reference Flow Range	mL/min	5 ~ 2000
精 度	Accuracy	—	± 5%F.S.
レ ン ジ ア ビ リ テ ィ	Range ability	—	5 times
重 量	Weight	kg	0.5
Pilot	Pilot pressure	MPa	Max. 0.3(Open control) / 0.15~0.3(Feed back control)
	Pilot port	—	Rc1/8" , FNPT1/8"
	Tighten the torque	N · m	0.4 ~ 0.6

Ordering Code

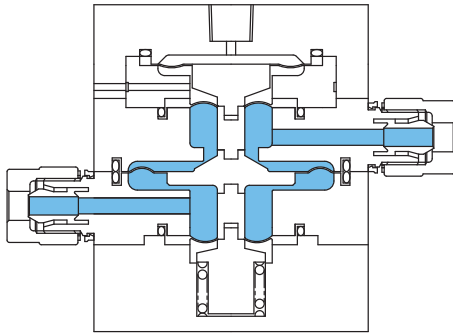
AVCFV **LF** ① — **T** **06** ② ③ ④ — ⑤

Type	LF Low Flow
① Maximum flow rate	005 50 mL/min 012 125 mL/min 025 250 mL/min 050 500 mL/min 100 1000 mL/min 200 2000 mL/min
Body material	T PTFE
Connection tubing size	06 6×4 6.35×4.35 LF
② Tubing standard	M Millimeter I Inch
③ Connection	2 Flowell 20 series 6 Flowell 60 series S Super Type Pillar Fitting 3 Super 300 Type Pillar Fitting F *1 Flare Type T *2 Tube
④ O-ring ※3	V FKM E EPDM F キヨコ®F <i>Viflon®F</i> ※4 K Kalrez®6190
⑤ Pilot port	n/a Rc 1/8" N FNPT 1/8"

Ordering code example
AVCFVLF025-T06I3V
AVCFVLF025-T06I3V-N

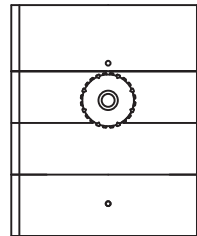
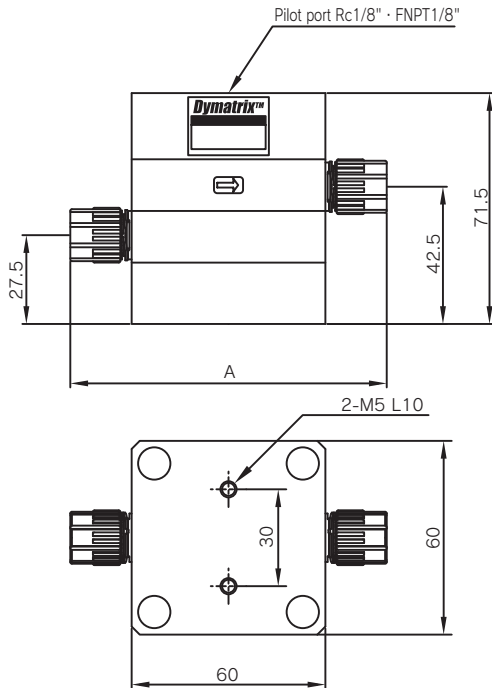
※1: In the case of the connection is "F", only "I (Inch)" can be selected for the "Tubing Standard".
 ※2: Please refer to page 105 for diameter of "Tube".
 ※3: O-rings are not wetted.
 ※4: "Viflon" is the Terpolymerization Fluorocarbon Elastomers.

Parts & Materials



Parts	Material	Wetted parts
Body	PTFE	○
Diaphragm	PTFE	○
Actuator	PVDF	
O-ring	FKM / EPDM / キヨコ®F <i>Viflon®F</i> / Kalrez®6190	
Metal parts	SUS304	

Dimensions

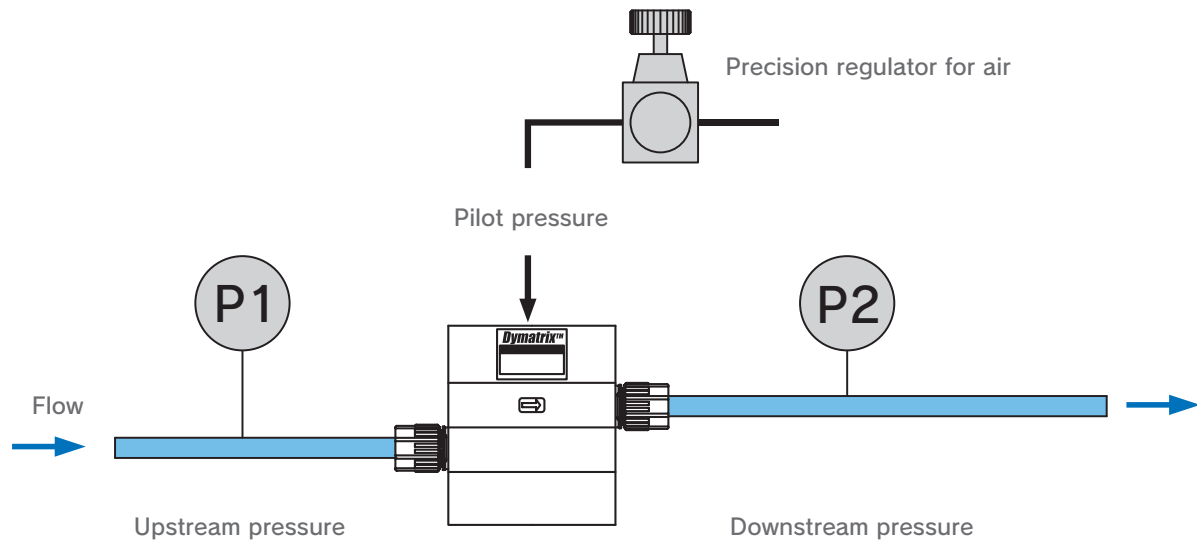


(Unit) : mm

Type	Tube size	Standard	Connection※	Dimension
LF	6×4 6.35×4.35	inch	2	96
		mm		94
		inch	6	122
		mm		120
		inch/mm	S	99
		inch/mm	3	98
		inch	F	116
		inch/mm	T	120

※ 1. Please refer to Ordering Code the symbols of the connection methods.
 ※ 2. Reference values

- AVPV3
- AVPVM
- AVPVL
- AVPVS
- AVSDV
- AVSDVM
- AVSDVT
- AVSAS
- AVMPV
- AVDIV
- AVVM
- AVHRL
- AVHRLM
- AVHRS
- AVBPR
- AVCFV
- HDV12R
- HDVM
- AVQDV
- AVBVX
- AVPJX
- AVSIV
- AVFCS2
- AVFCN
- OTHER



Test condition

1. The characteristic graph shows the data in the case of horizontal piping.
2. The test temperature is 23°C.
3. The characteristic graph is by connection tubing size mentioned in each graph.
4. The data in the characteristic graph are the experiment value and the reference value.

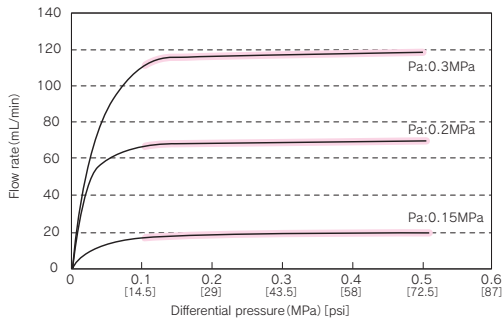
Cautions for use

1. Please do not use the **AVCFV** in negative pressure. (It would cause the breakage of the valve)
2. Please use CDA (clean, dry compression air) for pilot air. In case the pilot air contains foreign substance, such as chemicals, synthetic oil contains organic solvent, salt, corrosive gas and so on, it would cause the breakage and operation defectiveness.
3. We recommend to use the high quality regulator for pilot air control such as the precise regulator and Electronic-Pneumatic regulator.
4. Please do not use the regulator without the exhaust function. (The valve may not operate precisely)
5. Please leave the pilot air pressure off in case the valve is not used for long time.
6. The range of the flow rate differs with high viscosity fluid from the one for water. Please consult us in case of use of high viscosity fluid.
7. The valve is not suited to the use to the crystallizing nature fluid and Slurry.
8. Please use **AVCFV** for the fluid that has passed filter.

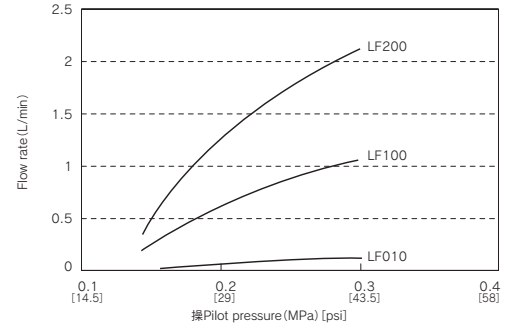
Technical Data

Connection tubing size of test: 6.35 × 4.35

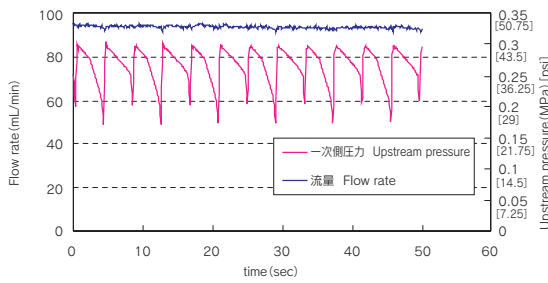
Differential pressure – Flow rate



Pilot pressure – Flow rate



Stability for pulsation



Fluid : Water (ambient)
Pa shows pilot pressure.

The data shown here is the experimental values and the reference values.

- AVPV3
- AVPVM
- AVPVS
- AVPVS2
- AVSDV
- AVSDVM
- AVSDVT
- AVSAS
- AVMPV
- AVDIV
- AVWM
- AVHPR
- AVHPRM
- AVHPR2
- AVBPR
- AVCFV
- HDV12R
- HDVM
- AVQDV
- AVBVX
- AVPJX
- AVSIV
- AVFCS2
- AVFCN
- OTHER