AVHPRL-M

定圧弁手動タイプ Regulator manual type

Specialty Valves and Control Products Dymatrix™

DI Water | Chemical | Manual | Press Control

Easy Operation

Since the downstream pressure characteristic is Linear, it is easy to adjust the downstream pressure.

Excellent stability

A stable flow rate can be easily and quickly obtained by operating the hanble.

Specifications

項目	Items	Unit	Type	
			MF	SHF
流体温度	Medium Temperature	℃	10 ～ 90	
構造耐圧	Proof Pressure	MPa	0.9 130.5psi	
使用圧力範囲	Working Pressure range	MPa	0.1 ～ 0.5 14.5 ～ 72.5psi	
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) 10 × 8 (9.53 × 6.35) 12 × 10 (12.70 × 9.53)	19 × 16 (19.05 × 15.88) 25 × 22 (25.40 × 22.20)
参考流量範囲	Reference Flow Range	L/min	0.4 ～ 15	15 ～ 100
精度※	Accuracy	%	± 5%(F.S.) ± 5% (F.S.) or below	± 8%(F.S.) ± 8%(F.S.) or below
重量	Weight	Kg	0.56	1.80

※ Accuracy depends on the operating pressure in the upstream side under the condition that the pressure in the downstream side does not change.

Ordering Code

AVHPR ① – ② **T** ③ ④ ⑤ ⑥ ⑦ ⑧

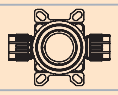
① Type	
MF	Medium Flow
SHF	Super High Flow

② Actuation ※1	
P	Manual (Push-lock)
M	Manual

Body materials	
T	PTFE

③ Connection	
2	Flowell 20 series
6	Flowell 60 series
S	Super Type Pillar Fitting
3	Super 300 Type Pillar Fitting
F ※2	Flare Type
T ※3	Tube

④ Tubing standard	
M	Millimeter
I	Inch

Mounting		
0	Thread at bottom	
1	Baseplate Direction 1	
2	Baseplate Direction 2	
3	Attached parts	

⑥ Mountnut	
0 ※4	off
1	on

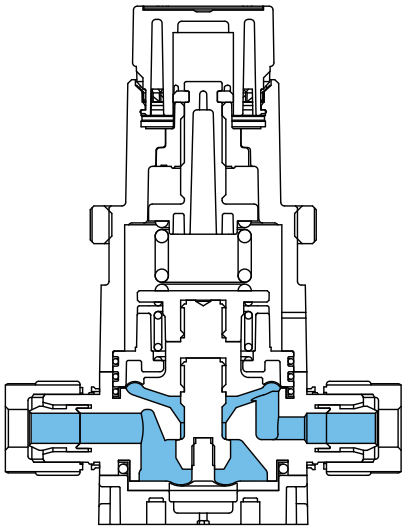
⑦ Chemical-resistant ※5			
		O-ring ※6	Metal Coating
V	0	FKM	×
	1		○
E	0	EPDM	×
	1		○
F	0	バイフロン®F ※7 Viflon®F	×
	1		○
K	0	Kalrez®6190	×
	1		○

⑧ Connection tubing size			
06	6× 4	6.35× 4.35	MF
10	10× 8	9.53× 6.35	
12	12×10	12.70× 9.53	
19	19×16	19.05×15.88	SHF
25	25×22	25.40×22.20	

※1 : In the case of Type "MF", only "P" can be selected for the "Actuation".
In the case of Type "SHF",only "M" can be selected for the "Actuation".
※2 : In the case of the connection is "F", only "I (Inch)" can be selected for the "Tubing Standard".
※3 : Please refer to page 105 for diameter of "Tube".
※4 : In the case of Type "SHF", only "0" can be selected for the "Mountnut".
※5 : Please consult us for the specification if the medium is a strong chemical, strong acid etc.
※6 : O-rings are not wetted.
※7 : "Viflon" is the Terpolymerization Fluorocarbon Elastomers.

Ordering code example
AVHPRMF-PT3M20E012
AVHPRSHF-MTSI31F125

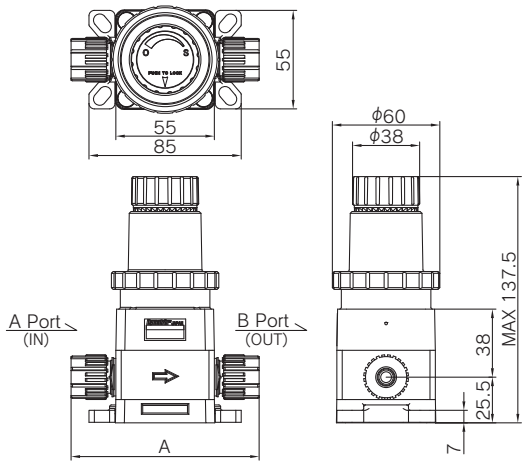
Parts & Materials



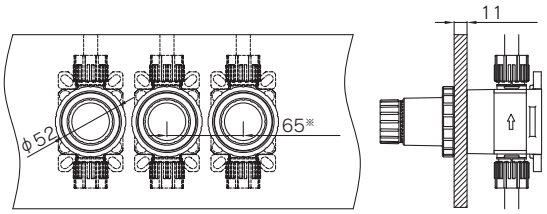
Parts	Chemical-resistant 0	Chemical-resistant 1	Wetted parts
Body	PTFE		○
Diaphragm	PTFE		○
Actuator	PP ／ PVDF		
O-ring	FKM／EPDM／バイフロン®F Viflon®F／Kalrez®6190		
Metal parts	SUS304	SUS304 PTFE Coating	

Dimensions

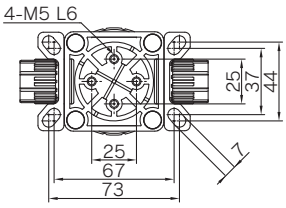
AVHPRMF-P



Panel cutting size



※ While the making multiple panel-mount please keep the distance of each valve more than 65mm.



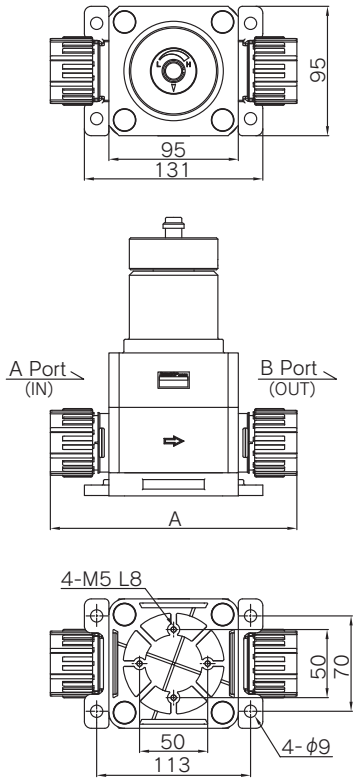
Base Plate

Unit) : mm

		Standard	Size		
			6×4	10×8	12×10
			6.35×4.35	9.53×6.35	12.70×9.53
A	Flowell 20 series	inch	91	100	108
		mm	89	97	105
	Flowell 60 series	inch	117	133	133
		mm	115	129	129
	Super Type Pillar Fitting	inch/mm	94	108	115
	Super 300 Type Pillar Fitting	inch/mm	93	105	113
	Flare Type	inch	111	117	121
	Tube	inch/mm	115	115	115

※ Reference values

AVHPRSHF-M



Base Plate

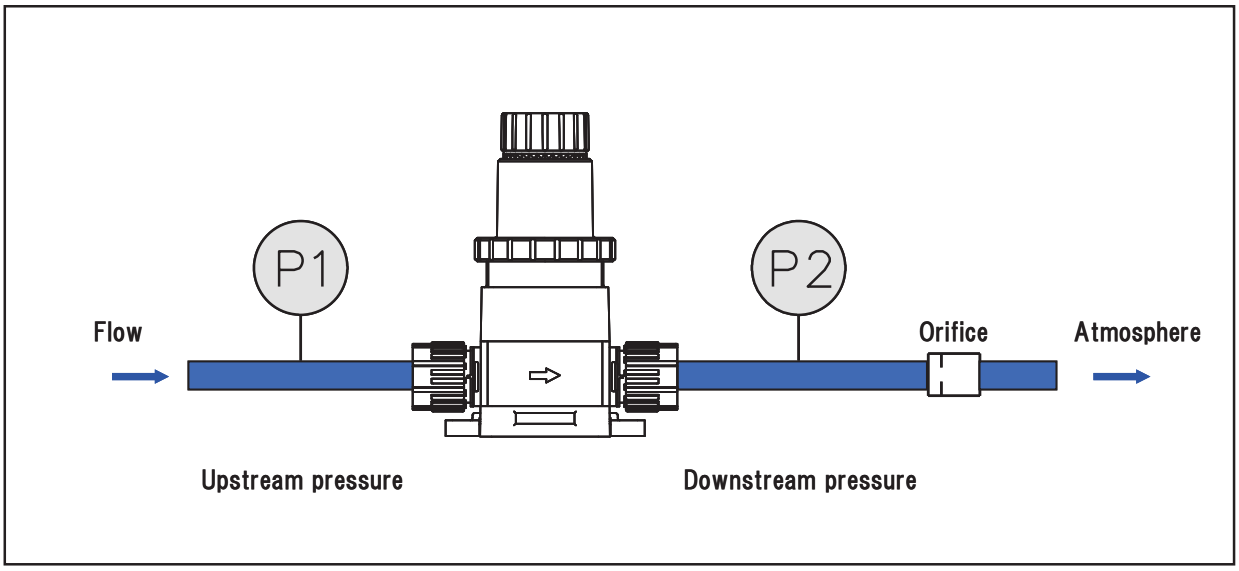
(Unit) : mm

		Standard	Size	
			19×16	25×22
			19.05×15.88	25.40×22.20
A	Flowell 20 series	inch	157	179
		mm	157	179
	Flowell 60 series	inch	183	197
		mm	183	194
	Super Type Pillar Fitting	inch/mm	174	185
	Super 300 Type Pillar Fitting	inch/mm	167	181
	Flare Type	inch	171	189
	Tube	inch/mm	175	175

※ Reference values

Technical Data

Test line



Test condition

1. The characteristic graph shows the data in the case of horizontal piping.
2. The test temperature is 23℃.
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.

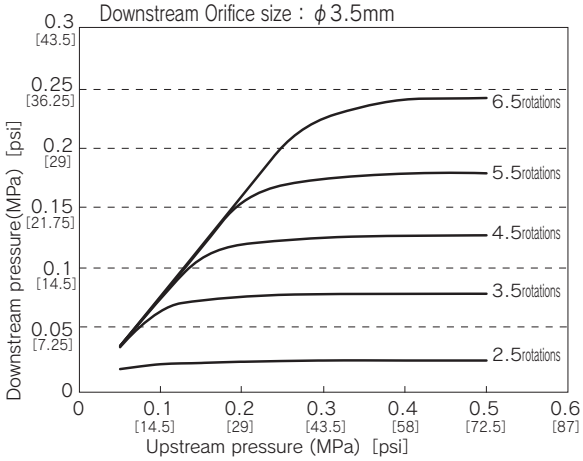
Cautions for use

1. Please install a constriction such as the orifice at downstream side for proper flow control.
2. Please do not use the **AVHPRL-M** in negative pressure. (It would cause the breakage of the valve)
3. 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.
4. The valve is not suited to the use to the crystallizing nature fluid and Slurry.
5. Please use **AVHPRL-M** for the fluid that has passed filter.

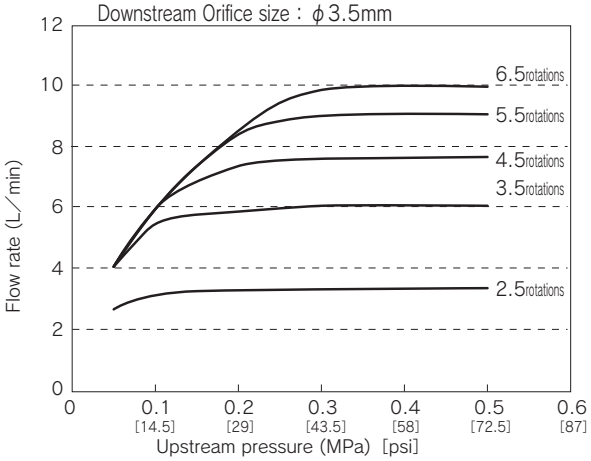
AVHPRMF-P

Connection tubing size of test:12.70×9.53

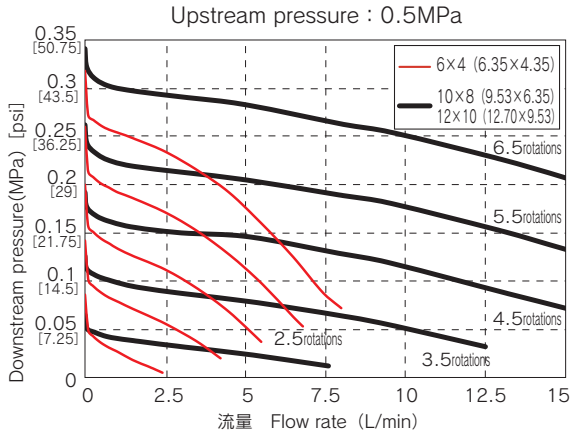
Upstream pressure - Downstream pressure



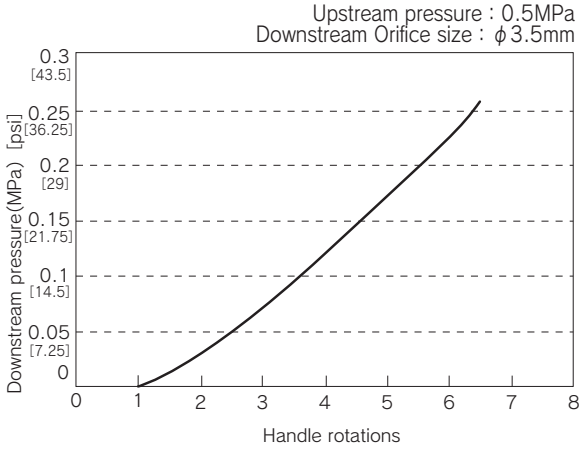
Upstream pressure - Flow rate



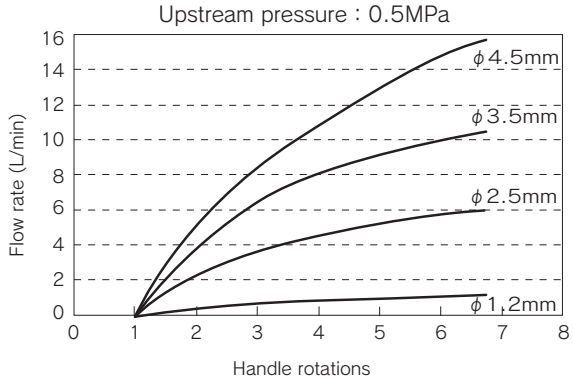
Flow rate - Downstream pressure



Handle rotation - Downstream pressure



Handle rotation - Flow rate



Orifice - Reference Flow Range

Orifice diameter (reference)	
Orifice (mm)	Flow rate (L/min)
ϕ1.2	0.4 ～ 1.4
ϕ2.5	1.8 ～ 5.5
ϕ3.5	3.0 ～10.0
ϕ4.5	4.5 ～15.0

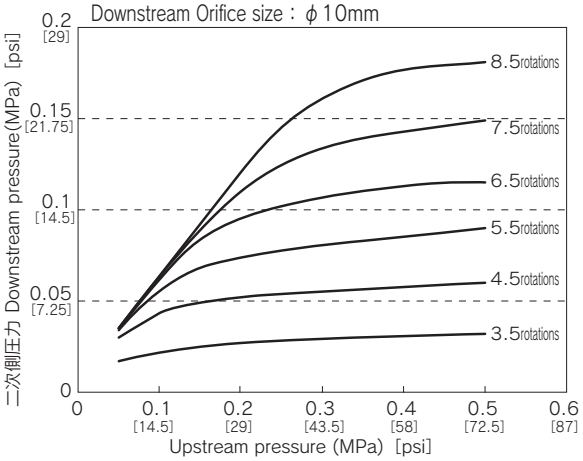
※ The data shown here is the experimental values and the reference values.

Technical Data

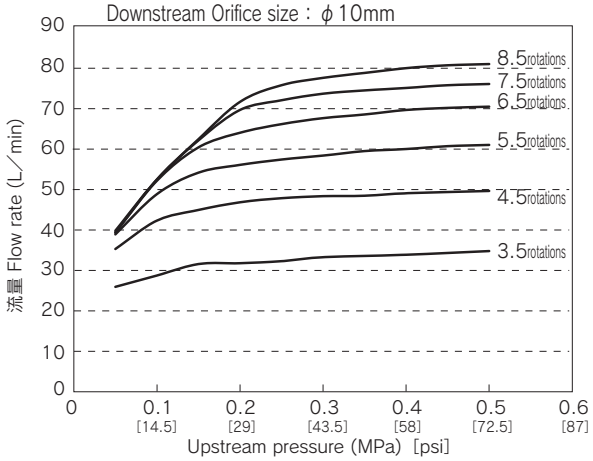
AVHPRSHF-M

Connection tubing size of test:25.40×22.20

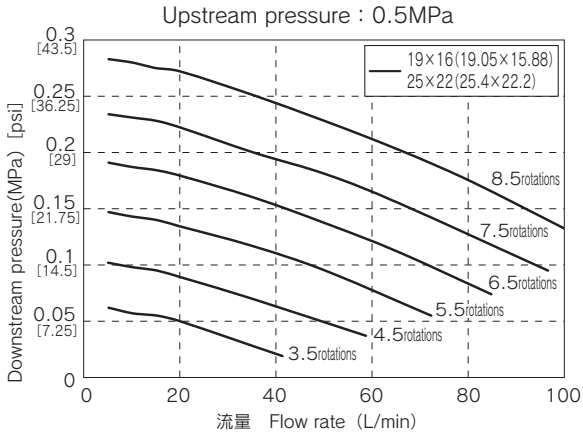
Upstream pressure - Downstream pressure



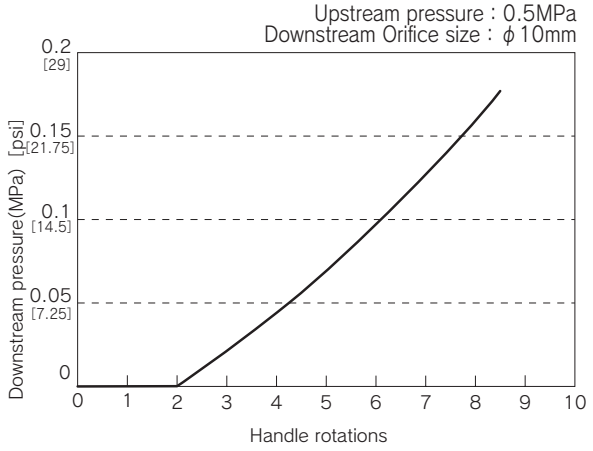
Upstream pressure - Flow rate



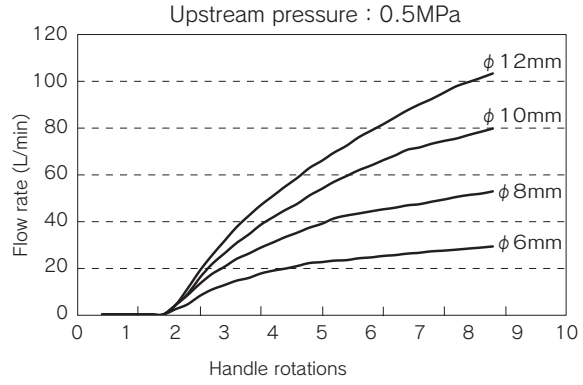
Flow rate - Downstream pressure



Handle rotation - Downstream pressure



Handle rotation - Flow rate



Orifice - Reference Flow Range

Orifice diameter (reference)	
Orifice (mm)	Flow rate (L/min)
φ6	15 ～ 31
φ8	25 ～ 51
φ10	34 ～ 76
φ12	42 ～100

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