

# AVMPV

## マルチポート弁 Multi port valve

Specialty Valves and Control Products **Dymatrix™**



### Abundant applications

AVMPV is the optimal valve for flushing, sampling, and branching from the distribution line. This valve has the results to a slurry, DI water and chemical applications because of its compact design and minimized dead volume.

### Made-to-order

We designed the MPV with the flexibility to meet the various user's specific needs. Made-to-order designs are available for the manifold layout, branching port quantities, fitting size, etc. AVMPV turns complicated equipment piping into a simple and compact product.

## Specifications

### Pneumatic Type

項目			Unit	Pneumatic Type			
本体サイズ			body size	—	□ 30	□ 40	□ 50
作動			Actuation	—	Air to close • Air to open		
流体温度			Medium Temperature	℃	5 ~ 80		
構造耐圧			Proof Pressure	MPa	1.0 145psi		
使用圧力範囲			Working Pressure range	MPa	0 ~ 0.5 0 ~ 72.5psi		
弁座漏れ量			Leakage Rate	cm <sup>3</sup> /min	0 (at hydraulic pressure 23℃)		
背圧			Back Pressure	MPa	0 ~ 0.5 0 ~ 72.5psi		
周囲温度			Ambient Temperature	℃	5 ~ 50		
開閉頻度			Frequency of opening and closing	times/min	< 20		
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		
Pilot	Pilot pressure	Air to open	MPa	0.4 ~ 0.5 58 ~ 72.5psi			
		Air to close		0.3 ~ 0.4 43.5 ~ 58psi			
	Pilot air consumption	Air to open	L/times(ANR)*	0.003	0.01	0.02	
		Air to close		0.03	0.06	0.11	
Pilot port			—	Rc1/8", FNPT1/8"			

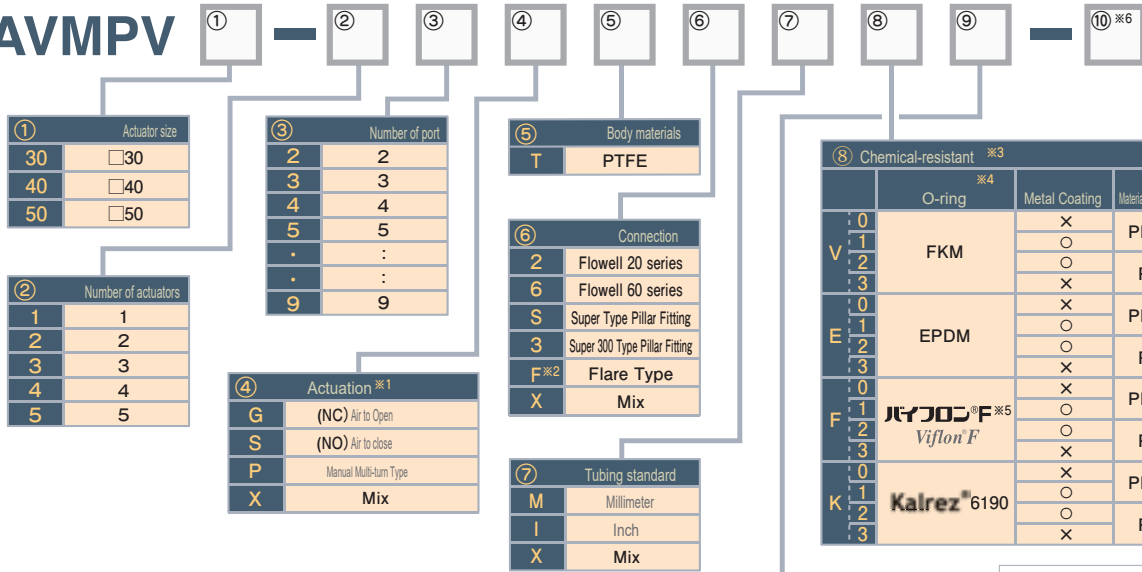
\* The pilot air consumption is the value at 0.4MPa.

### Manual Type

項目			Unit	Manual Type			
本体サイズ			body size	—	□ 30	□ 40	□ 50
作動			Actuation	—	Manual Multi-turn Type		
流体温度			Medium Temperature	℃	5 ~ 80		
構造耐圧			Proof Pressure	MPa	1.0 145psi		
使用圧力範囲			Working Pressure range	MPa	0 ~ 0.5 0 ~ 72.5psi		
弁座漏れ量			Leakage Rate	cm <sup>3</sup> /min	0 (at hydraulic pressure 23℃)		
背圧			Back Pressure	MPa	0 ~ 0.5 0 ~ 72.5psi		
周囲温度			Ambient Temperature	℃	5 ~ 50		
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		

Ordering Code

AVMPV

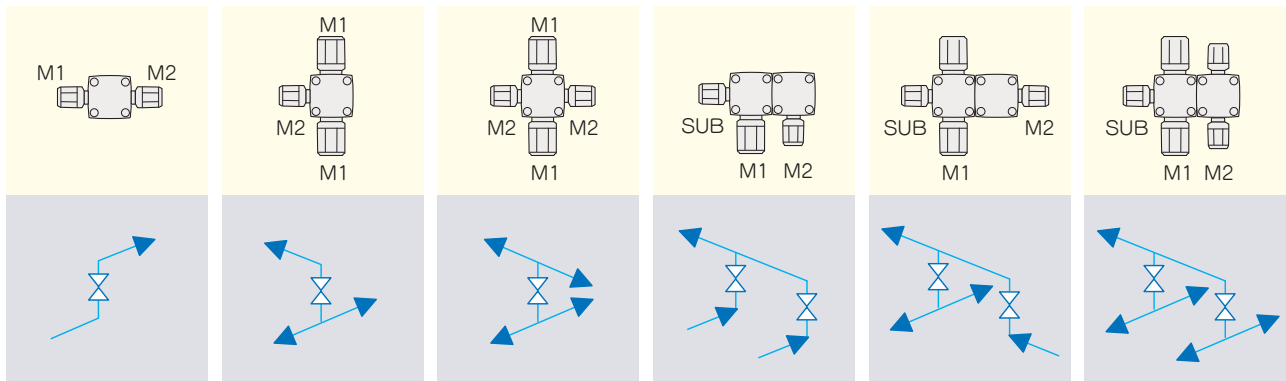


No.	Main Port		Sub Port		Body size		
	mm	inch	mm	inch	□30	□40	□50
					Orificeφ 4	Orificeφ 9	Orificeφ 16
11	3 x 2	3.18 x 1.6	3 x 2	3.18 x 1.6	○	※7	※7
21	6 x 4	6.35 x 4.35	3 x 2	3.18 x 1.6	○	○	※7
22			6 x 4	6.35 x 4.35	○	○	※7
31	10 x 8	9.53 x 6.35	3 x 2	3.18 x 1.6	○	○	※7
32			6 x 4	6.35 x 4.35	○	○	※7
33			10 x 8	9.53 x 6.35	×	○	※7
41	12 x 10	12.70 x 9.53	3 x 2	3.18 x 1.6	×	○	※7
42			6 x 4	6.35 x 4.35	×	○	※7
43			10 x 8	9.53 x 4.35	×	○	※7
44			12 x 10	12.70 x 9.53	×	○	※7
61	19 x 16	19.05 x 15.88	3 x 2	3.18 x 1.6	×	○	※7
62			6 x 4	6.35 x 4.35	×	○	※7
63			10 x 8	9.53 x 6.35	×	○	○
64	25 x 22	25.40 x 22.20	12 x 10	12.70 x 9.53	×	○	○
66			19 x 16	19.05 x 15.88	×	×	○
81			3 x 2	3.18 x 1.6	×	×	○
82	25 x 22	25.40 x 22.20	6 x 4	6.35 x 4.35	×	×	○
83			10 x 8	9.53 x 6.35	×	×	○
84			12 x 10	12.70 x 9.53	×	×	○
86	25 x 22	25.40 x 22.20	19 x 16	19.05 x 15.88	×	×	○
86			19 x 16	19.05 x 15.88	×	×	○

Ordering code example  
 AVMPV30-34GT2MV032-\*\*\*\*\*  
 AVMPV50-23PT6IF263-\*\*\*\*\*  
 AVMPV40-45XTXK044-\*\*\*\*\*

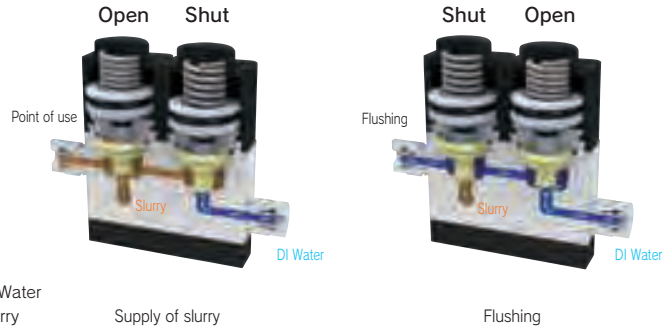
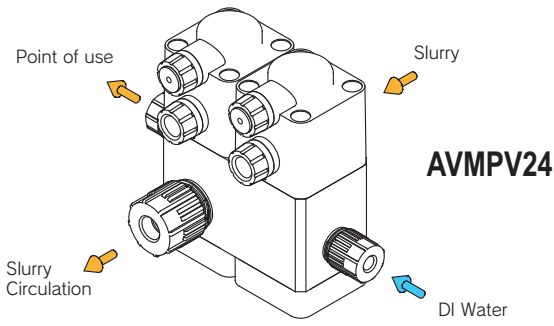
- ※1 : Please consult us for the specification "Double acting" in the case of the hope.
- ※2 : In the case of the connection is "F", only "I (Inch)" can be selected for the "Tubing Standard".
- ※3 : Please consult us for the specification if the medium isa strong chemical, strong acid etc.
- ※4 : O-rings are not wetted.
- ※5 : "Viflon" is the Terpolymerization Fluorocarbon Elastomers.
- ※6 : The product has a five -digit code depending on customizations, such as the direction of the port.  
Please contact us for the formal ordering code.
- ※7 : Please consult us.

Port combinations



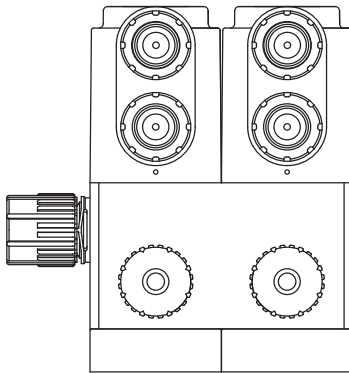
- AVPV3
- AVPVM
- AVPVS
- AVSDV
- AVSDVM
- AVSDVT
- AVSAS
- AVMPV
- AVDIV
- AVVM
- AVHRL
- AVHRL-M
- AVHPRS
- AVBPR
- AVCFV
- HDV12R
- HDVM
- AVQDV
- AVBVX
- AVPJX
- AVSIV
- AVFCS2
- AVFCN
- OTHER

## Example



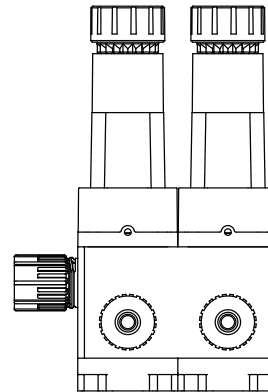
## Parts & Materials

### Pneumatic Type



Parts	Chemical-resistant				Wetted parts
	0	1	2	3	
Body	PTFE				○
Diaphragm	PTFE				○
Actuator	PPS / PP		PVDF		
O-ring	FKM / EPDM / <b>VIKON® F</b> <i>Viflon F</i> / <b>Kalrez®</b> 6190				
Metal parts	SUS304	SUS304 PTFE Coating	SUS304		

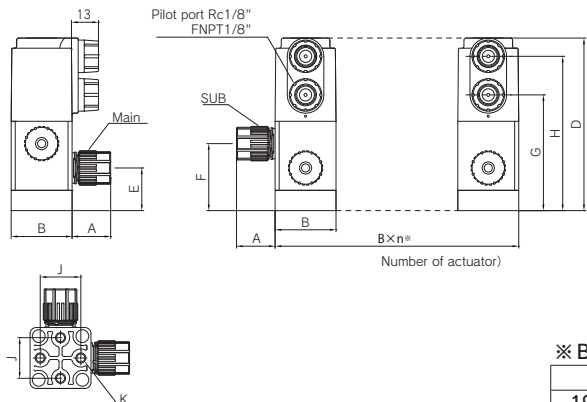
### Manual Type



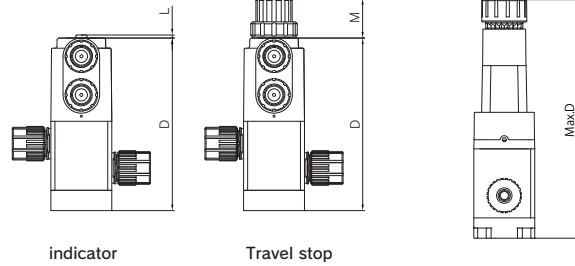
Parts	Chemical-resistant		Wetted parts
	2	3	
Body	PTFE		○
Diaphragm	PTFE		○
Actuator	PVDF		
O-ring	FKM / EPDM / <b>VIKON® F</b> <i>Viflon F</i> / <b>Kalrez®</b> 6190		
Metal parts	SUS304 PTFE Coating	SUS304	

## Dimensions

### Pneumatic Type



### Option



### Manual Multi-turn Type

※ B = 50

Main Port size		
19 × 16	19.05 × 15.88	B × n + (n-1)
25 × 22	25.40 × 22.20	B × n + 10 × (n-1)

Dimensions

(Unit) : mm

Main Port size	3 × 2	6 × 4	10 × 8	12 × 10	19 × 16	25 × 22		
	3.18 × 1.6	6.35 × 4.35	9.53 × 6.35	12.70 × 9.53	19.05 × 15.88	25.40 × 22.20		
A	Flowell 20 series	inch	-	18	22.5	26.5	31	42
		mm	9	17	21	25	31	42
	Flowell 60 series	inch	-	31	39	39	44	51
		mm	17.5	30	37	37	44	49.5
	Super Type Pillar fitting	inch/mm	15	19.5	26.5	30	39.5	45
Super 300 Type Pillar fitting	inch/mm	15	19	25	29	36	43	
Flare Type	inch	-	28	31	33	38	47	
B	-	30	-	40	-	50	-	
L	-	1.5	-	3.0	-	3.5	-	
M	-	Max. 21.5	-	Max. 22	-	Max. 23	-	

B=30

Main Port size	3 × 2	6 × 4	10 × 8	12 × 10	19 × 16	25 × 22
	3.18 × 1.6	6.35 × 4.35	9.53 × 6.35	12.70 × 9.53	19.05 × 15.88	25.40 × 22.20
D	-	85	90	-	-	-
Max.D	-	117.5	122.5	-	-	-
E	-	21	25.5	-	-	-
F	-	33	38	-	-	-
G	-	57	62	-	-	-
H	-	76	81	-	-	-
J	-	20	-	-	-	-
K	-	M5 L10	-	-	-	-
L	-	5.0	-	-	-	-

B=40

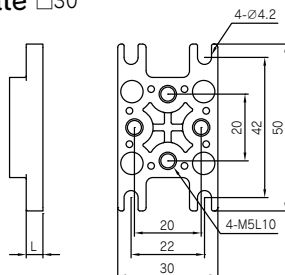
Main Port size	3 × 2	6 × 4	10 × 8	12 × 10	19 × 16	25 × 22
	3.18 × 1.6	6.35 × 4.35	9.53 × 6.35	12.70 × 9.53	19.05 × 15.88	25.40 × 22.20
D	-	93	103	-	108	-
Max.D	-	116.5	126.5	-	131.5	-
E	-	22	27.5	-	30.5	-
F	-	33	43	-	48	-
G	-	61	71	-	76	-
H	-	84.5	94.5	-	99.5	-
J	-	-	20	-	-	-
K	-	-	M5 L13	-	-	-
L	-	-	7.0	-	-	-

B=50

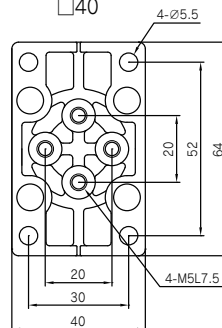
Main Port size	3 × 2	6 × 4	10 × 8	12 × 10	19 × 16	25 × 22
	3.18 × 1.6	6.35 × 4.35	9.53 × 6.35	12.70 × 9.53	19.05 × 15.88	25.40 × 22.20
D	-	-	-	-	129	134
Max.D	-	-	-	-	158	163
E	-	-	-	-	34	35.5
F	-	-	-	-	59	64
G	-	-	-	-	93	98
H	-	-	-	-	120	125
J	-	-	-	-	-	-
K	-	-	-	-	-	-
L	-	-	-	-	-	7.0

※ Reference values

Base Plate □30



□40



□50

