

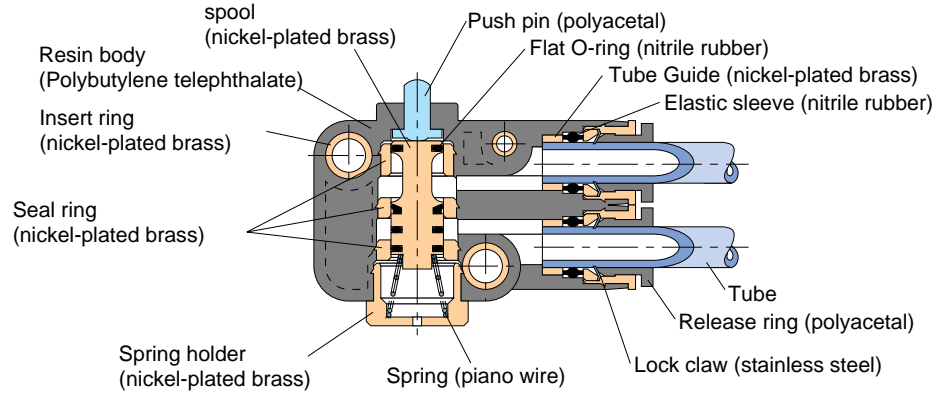
# Quick-fitting Type Mechanical Valve

## Mechanical Valve

### Features

- This push-type valve turns on and off the input of air pressure.
- The operating force is not affected by strength of pressure owing to the spool valve mechanism.
- The valve has three ports to exhaust the residual pressure on the output side (equipment) when closed and two ports that have no exhaust function.

### Construction

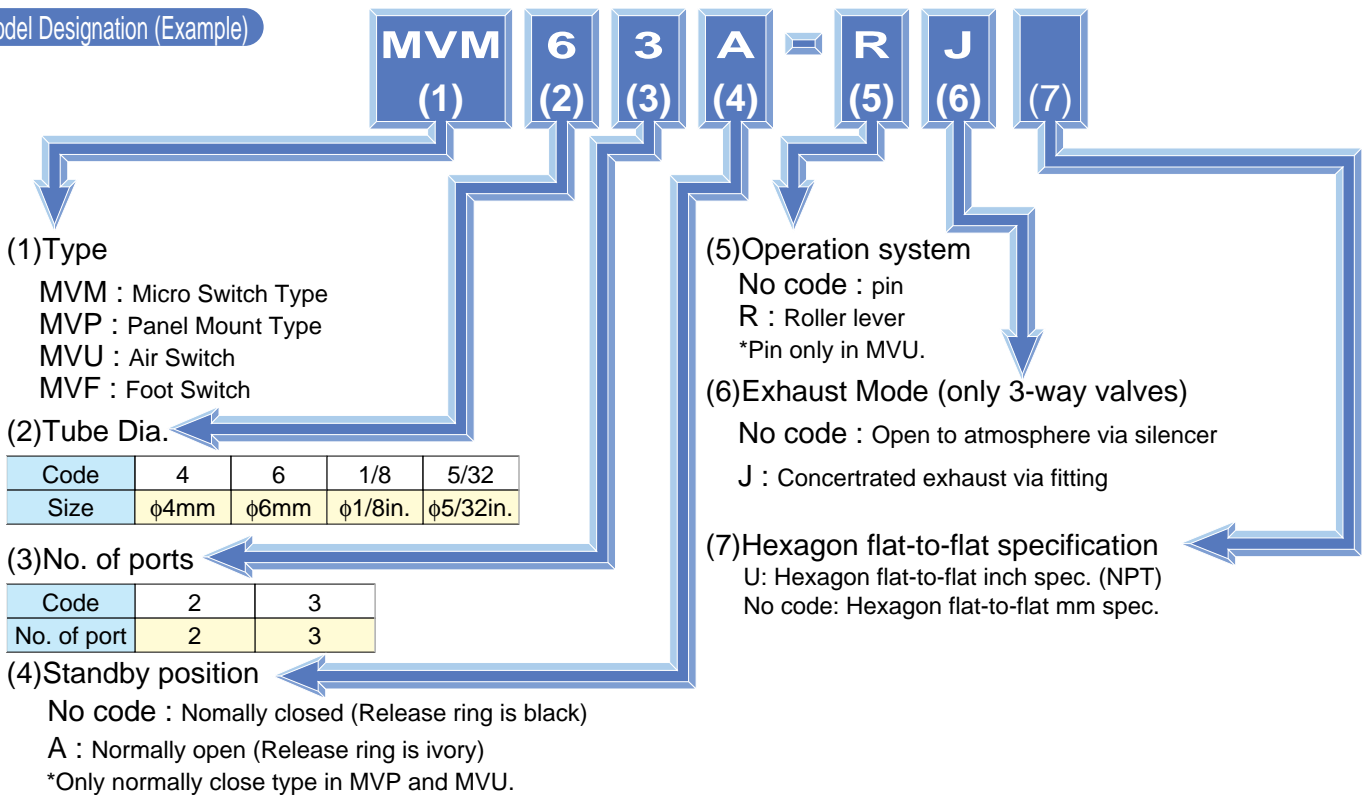


\*Black in normal-close type, ivory in normal-open type.

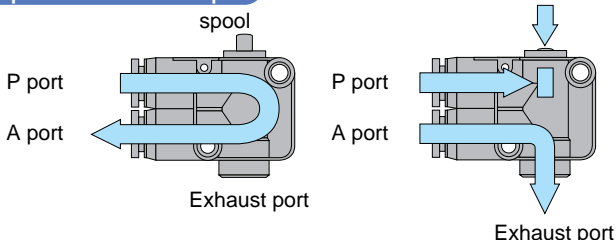
### Specification

Fluid admitted	Air	
Service pressure range	0~100psi	0~0.7MPa
Working vacuum	32~140°F	0~60°C
Lubrication	ISO VG32 (Turbine oil class 1)	

### Model Designation (Example)



### Application example



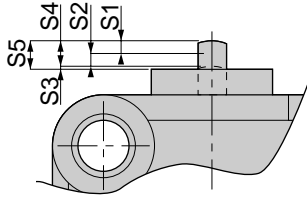
- In case of Three-Way, Normally Open type, the compressed air entered from P port flows to A port. While the spool is pushed down, the air inlet is blocked and the residual pressurized air is released from the exhaust port (open to air type or concentrated exhaust type).
- \*Three-Way, Normally Closed type works contrary to Normally Open type.

# Change Series Mechanical Valve

unit:mm

## MVM

Stroke Dimensions for Pin Type

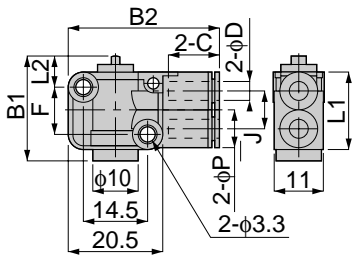


Tube dia.	Pre-Stroke S1	Operating Stroke S2	Over Stroke S3	Recommended Stroke S4	Max. Stroke S5
φ4	1.0	1.0	0.4	2	2.4
φ6	1.6	1.6	0.4	3.2	3.6

unit:mm

## MVM

Microswitch Pin Type

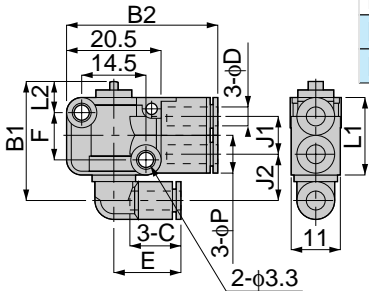


Model	Tube dia. φD	B1		B2	L1	L2	φP	C	J	F	Mass (g)	Eff. a. (mm <sup>2</sup> )
		max	min									
MVM 4□	4	23.5	21	33	17	7	8	11	8	10.5	10	3
MVM 4□A											10.5	
MVM 6□	6	30.5	27	33.5	22	6.5	10.5	12	10.5	15.5	12.5	7
MVM 6□A												

unit:mm

## MVM

Microswitch Pin Type  
(Concentrated Exhaust)

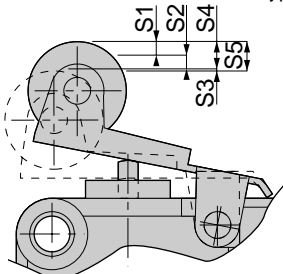


Model	Tube dia. φD	B1		B2	L1	L2	φP	C	J1	J2	E	F	Mass (g)	Eff. a. (mm <sup>2</sup> )
		max	min											
MVM 43-J	4	26.5	24	33	17	7	8	11	8	8.5	15	10.5	11	3
MVM 43A-J														
MVM 63-J	6	34.5	31	33.5	22	6.5	10.5	12	10.5	11.5	16.5	15.5	14.5	7
MVM 63A-J													15	

unit:mm

## MVM

Stroke Dimensions for Roller Type

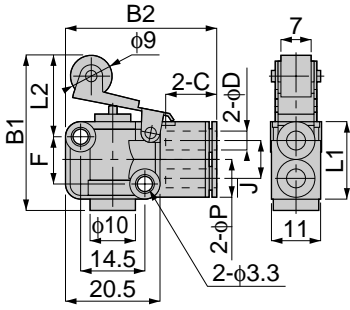


Tube dia.	Pre-Stroke S1	Operating Stroke S2	Over Stroke S3	Recommended Stroke S4	Max. Stroke S5
φ4	1.5	1.7	0.4	3.2	3.6
φ6	2.0	2.5	0.4	4.5	4.9

# Change Series Mechanical Valve

## MVM

Microswitch Roller Type



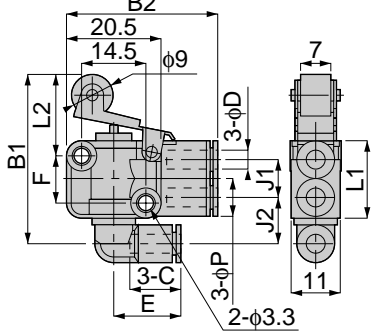
Model	Tube dia. φD	B1		B2	L1	L2		φP	C	J	F	Mass (g)	Eff. a. (mm <sup>2</sup> )
		max	min			max	min						
MVM 4□-R	4	34.5	30.5	33	17	18	14.5	8	11	8	10.5	12.5	3
MVM 4□A-R													
MVM 6□-R	6	42	37	33.5	22	19.5	15	10.5	12	10.5	15.5	15	7
MVM 6□A-R													



unit:mm

## MVM

Microswitch Roller Type  
(Concentrated Exhaust)



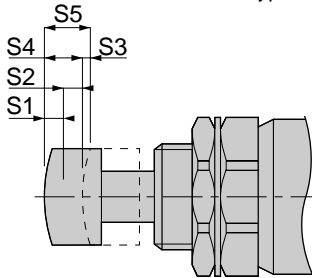
Model	Tube dia. φD	B1		B2	L1	L2		φP	C	J	E	F	Mass (g)	Eff. a. (mm <sup>2</sup> )
		max	min			max	min							
MVM 43-RJ	4	37.5	33.5	33	17	18	14.5	8	11	8	15	10.5	13	3
MVM 43A-RJ													13.5	
MVM 63-RJ	6	46	41	33.5	22	19.5	15	10.5	12	10.5	16.5	15.5	17	7
MVM 63A-RJ														



unit:mm

## MVP

Stroke Dimensions for Pin Type

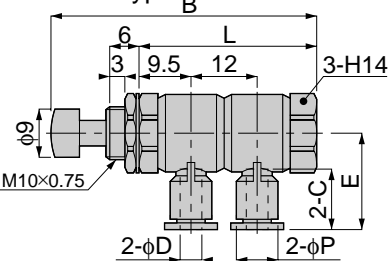


Tube dia.	Pre-Stroke S1	Operating Stroke S2	Over Stroke S3	Recommended Stroke S4	Max. Stroke S5
φ4	1.8	1.8	0.4	3.6	4
φ6	1.8	1.8	0.4	3.6	4

unit:mm

## MVP

Panel Mount Type  
Pin Type



Model	Tube dia. φD	B		L	φP	C	E	Mass (g)	Eff. a. (mm <sup>2</sup> )
		max	min						
MVP 42	4	49.5	46	33	8	11	18	31	3
MVP 43		49	45.5	32.5				30	
MVP 62	6	49.5	46	33	10.5	12	18.5	32	5
MVP 63		49	45.5	32.5				31	

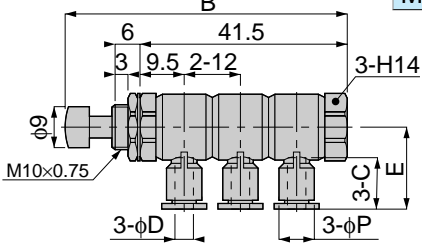


unit:mm

# Change Series Mechanical Valve

## MVP

Panel Mount Pin Type  
(Concentrated Exhaust)

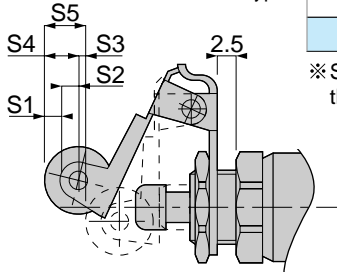


Model	Tube dia. φD	B		φP	C	E	Mass (g)	Eff. a. (mm <sup>2</sup> )
		max	min					
MVP 43-J	4	57	53.5	8	11	18	33	3
MVP 63-J	6	57	53.5	10.5	12	18.5	35	5

unit:mm

## MVP

Stroke Dimensions for Roller Type



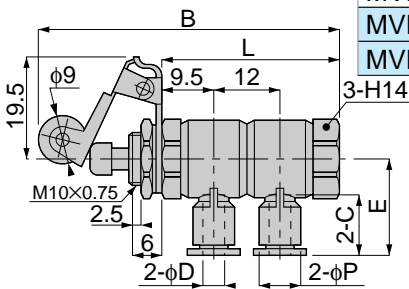
Tube dia.	Pre-Stroke S1	Operating Stroke S2	Over Stroke S3	Recommended Stroke S4	Max. Stroke S5
φ4	1.8	2.1	0.4	3.9	4.3
φ6	1.8	2.1	0.4	3.9	4.3

※ Stroke Dimensions were measured for the product mounted on 2.5-mm plate. Dimensions vary when the thickness of the plate changes.

unit:mm

## MVP

Panel Mount Roller Type

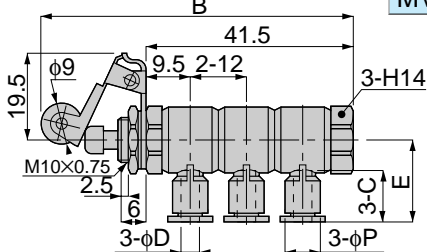


Model	Tube dia. φD	B		L	φP	C	E	Mass (g)	Eff. a. (mm <sup>2</sup> )
		max	min						
MVP 42-R	4	56.5	53	33	8	11	18	34.5	3
MVP 43-R		57	53.5	32.5				33.5	
MVP 62-R	6	56.5	53	33	10.5	12	18.5	35.5	5
MVP 63-R		57	53.5	32.5				34.5	

unit:mm

## MVP

Panel Mount Roller Type  
(Concentrated Exhaust)



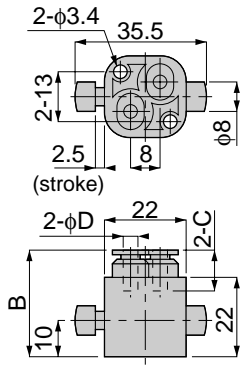
Model	Tube dia. φD	B		φP	C	E	Mass (g)	Eff. a. (mm <sup>2</sup> )
		max	min					
MVP 43-RJ	4	66	62.5	8	11	18	36.5	3
MVP 63-RJ	6	66	62.5	10.5	12	18.5	38	5

unit:mm

# Change Series Mechanical Valve

## MVU

Air Switch



unit:mm

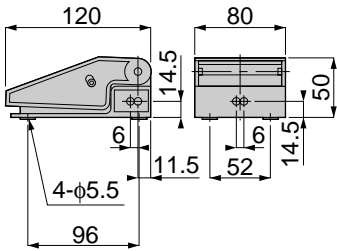
Model	Tube dia. φD	B	C	Mass (g)	Eff. a. (mm <sup>2</sup> )
MVU 42	4	29	11	22.5	3
MVU 43				24	
MVU 62	6	31.5	12	22.5	5
MVU 63				24	

※Main body is Ivory color. Release ring is black.



## MVF

Foot Switch



unit:mm

Model	Tube dia. φD	Mass (g)	Eff. a. (mm <sup>2</sup> )
MVF 4□□	4	172.5	3
MVF 6□□	6	174.5	7

※MVF 4□□ uses MVM 4□□ or MVM 4□□ A.  
MVF 6□□ uses MVM 6□□ or MVM 6□□ A.



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**⚠ Detailed Safety Instruction**

Before using the PISCO device, be sure to read the "Safety Instructions", "Common Safety Instructions for Products Listed in This Manual" on page 23~24 and "Common Safety Instructions for Change Series Valves" on page 279.

**⚠ Warning**

1. Do not allow any load beyond the limit stroke to bear on the push pin or roller by machine operation. Otherwise damage to the body may result.
2. Do not use the valve with cam and dog whose operation involves steep leading and trailing edges. Impacts may inflict damage to the device body.
3. Do not carry out the air switch or foot switch type of operation by a machine. Such an operation may damage the device body.
4. In applications that require high level of reliability, make certain that the mechanical valve operates properly at start-up.
5. Do not subject the product with a rotary resin body to forcible swinging or rotation. Otherwise the body may suffer damage or develop leakage.
6. Do not use the valve in locations where it can be exposed to water drops, oil drops, dust, etc. The valve is neither drip-proof nor dustproof, so that malfunction may result.

**⚠ Caution**

1. Consult PISCO about applications involving frequent operations.
2. Confirm the number of ports and the conduction system by checking the marking on the body.
3. With the microswitch or the panel mounting type, the effective sectional area may change with the stroke. Insufficient stroke may cause low flow rate.
4. With the air switch or the foot switch type, push the button or the top lid of the case completely until it stops. Failure to do so may result in poor conduction or low flow rate due to faulty switching.