

Mechanical Valve

Built-in push-in fitting push type, roller type mechanical valve (3-port valve for residual pressure exhaust, 2-port valve)

Safety instructions for this product

Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)



(1) Mechanical Valve

(2) Type

Code	P	U	M	F
Model	Panel mount type	Air switch type	Microswitch type	Foot switch type

(3) Tube dia. (øD)

Code	mm size (mm)		inch size (inch)	
	4	6	1/8	5/32
Tube O.D.	ø4	ø6	ø1/8	ø5/32

(4) Number of ports

Code	2	3
Number of ports	2 ports	3 ports

(5) Valve type

Code	No code	A
Valve type	Normally closed	Normally open
Identification	(Release ring color: Black)	(Release ring color: Light gray)
		

*1. MVP and MVU come in "normally closed" only.

*2. Release-ring color is white for inch-size products.



(6) Operating method

Code	No code	R
Operating method	Pin	Roller lever

* MVU is pin type only.

(7) Exhaust system (3 port type only)

Code	No code	J
Exhaust system	Silencer exhaust	Tube exhaust

(8) Wrench size specification

Code	No code	U
Wrench size spec.	mm size	inch size

Characteristics

The three directional valve which exhausts residual pressure when closed.

Two directional valve without a function to release the residual pressure is also available.

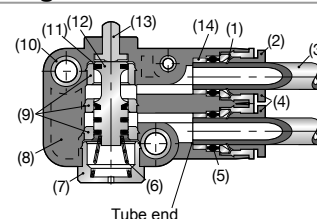
The operating force is not affected by the strength of air pressure owing to the spool valve mechanism.

Specifications

Fluid medium	Air
Operating pressure range	0 to 0.7 MPa
Operating temp. range	0 to 60°C (No freezing)
Lubrication	Require ISO VG32 (Turbine oil class 1)

Sectional drawing

Microswitch type
2port pin type: MVM



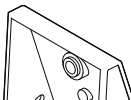
No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release ring(*)	POM
(3)	Tube	Polyurethane or nylon, etc.
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Spring	Piano wire
(7)	Spring holder	Nickel-plated brass
(8)	Resin body	PBT
(9)	Seal ring	Nickel-plated brass
(10)	Insert ring	Nickel-plated brass
(11)	Flat O-ring	NBR
(12)	Spool	Nickel-plated brass
(13)	Push pin	POM
(14)	Tube guide	Nickel-plated brass

* Color of Release ring

mm: Normally closed: Black, Normally open: Light gray

Inch: Normally closed: White, Normally open: White

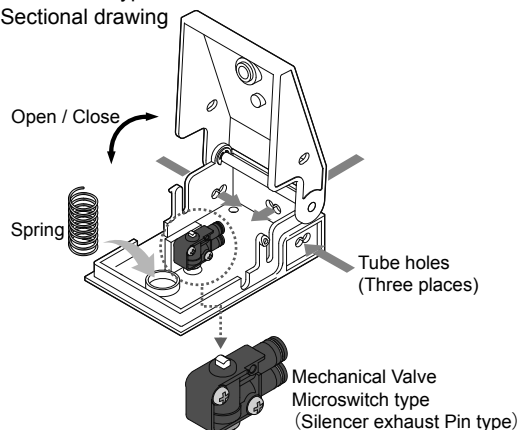
RoHS2 (2011/65/EU+EU2015/863) compliant

Panel mount type						Air switch type		
Type	Model code MVPøD[4]	Model code MVPøD[4]U	Type	Model code MVPøD[4]-R	Model code MVPøD[4]-RU	Type	Model code MVUøD[4]	
Silencer exhaust Pin type MVP  øD	MVP42 MVP62 MVP43 MVP63	MVP ^{1/8} 2U MVP ^{5/32} 2U MVP ^{1/8} 3U MVP ^{5/32} 3U	Silencer exhaust Roller type MVP  øD	MVP42-R MVP62-R MVP43-R MVP63-R	MVP ^{1/8} 2-RU MVP ^{5/32} 2-RU MVP ^{1/8} 3-RU MVP ^{5/32} 3-RU	Air switch MVU øD 	MVU42 MVU62 MVU43 MVU63	MVU ^{1/8} 2 MVU ^{5/32} 2 MVU ^{1/8} 3 MVU ^{5/32} 3
Type	Model code MVPøD3-J	Model code MVPøD3-JU	Type	Model code MVPøD3-RJ	Model code MVPøD3-RJU			
Tube exhaust Pin type MVP  øD	MVP43-J MVP63-J	MVP ^{1/8} 3-JU MVP ^{5/32} 3-JU	Tube exhaust Roller type MVP  øD	MVP43-RJ MVP63-RJ	MVP ^{1/8} 3-RJU MVP ^{5/32} 3-RJU			
Microswitch type				Foot switch type				
Type	Model code MVMøD[4][5]	Type	Model code MVMøD[4][5]-R	Type	Model code MVFøD[4][5]			
Silencer exhaust Pin type MVM  øD	MVM42 MVM62 MVM42A MVM62A MVM43 MVM63 MVM43A MVM63A MVM ^{1/8} 2 MVM ^{5/32} 2 MVM ^{1/8} 2A MVM ^{5/32} 2A MVM ^{1/8} 3 MVM ^{5/32} 3 MVM ^{1/8} 3A MVM ^{5/32} 3A	Silencer exhaust Roller type MVM  øD	MVM42-R MVM62-R MVM42A-R MVM62A-R MVM43-R MVM63-R MVM43A-R MVM63A-R MVM ^{1/8} 2-R MVM ^{5/32} 2-R MVM ^{1/8} 2A-R MVM ^{5/32} 2A-R MVM ^{1/8} 3-R MVM ^{5/32} 3-R MVM ^{1/8} 3A-R MVM ^{5/32} 3A-R	Foot switch MVF 	MVF42 MVF62 MVF42A MVF62A MVF43 MVF63 MVF43A MVF63A MVF ^{1/8} 2 MVF ^{5/32} 2 MVF ^{1/8} 2A MVF ^{5/32} 2A MVF ^{1/8} 3 MVF ^{5/32} 3 MVF ^{1/8} 3A MVF ^{5/32} 3A			
Type	Model code MVMøD3[5]-J	Type	Model code MVMøD3[5]-RJ					
Tube exhaust Pin type MVM  øD	MVM43-J MVM63-J MVM43A-J MVM63A-J MVM ^{1/8} 3-J MVM ^{5/32} 3-J MVM ^{1/8} 3A-J MVM ^{5/32} 3A-J	Tube exhaust Roller type MVM  øD	MVM43-RJ MVM63-RJ MVM43A-RJ MVM63A-RJ MVM ^{1/8} 3-RJ MVM ^{5/32} 3-RJ MVM ^{1/8} 3A-RJ MVM ^{5/32} 3A-RJ					
				Notes * MVM (Microswitch Pin type) is incorporated into MVF (Foot switch type). Foot switch type Construction Sectional drawing 				

CAD data is available
at PISCO website.Packaging specifications
1 pc. /bag

Notes

* MVM (Microswitch Pin type) is incorporated into MVF (Foot switch type).

Foot switch type Construction
Sectional drawing

■ Handling

	Normally closed type	Normally open type
Microswitch type		
Panel mount type		
Explanation	For the 3-way normally closed type, the compressed air from P port is stopped. Pressing the push pin will switch the flow path, directing the air to flow out to A port.	For the 3-way normally closed type, the compressed air from P port flows out to A port. Pressing the push pin will switch the flow path, stopping the air flow, and the residual pressure at A port will be released from R port (Open-air exhaust or Tube exhaust).

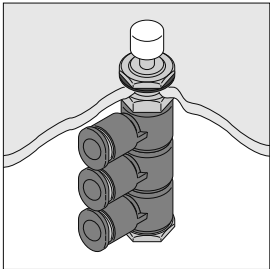
P port: Air supply port, A port: Secondary port, R port: Exhaust port

■ How to fix

(1) Fastening the bulkhead

For the Panel mount type of Mechanical Valve, fasten the bulkhead hex nut with a wrench.
When mounting, fasten at the designated torque.

Designated torque	2.5 to 3.5 N·m
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(2) Fixing the body

For the Microswitch type or Air switch type of Mechanical Valve, use the fixing holes in the resin body to fix with M3 screws. (Refer to the dimensional drawings of Mechanical Valve under “Type & Price List” on Pisco website.)
(<https://www.pisco.co.jp/en/product/c/c04/>)

