

Micro Mechanical Valve

Series VM1000

Miniature structure requires little mounting space.

Built-in hose nipple connection.

Piping options:
Side piping, Bottom piping
Over Travel after actuation
(mechanical operated types)



Specifications

Valve type	N.C. poppet
Number of ports	2 or 3
Piping	Side or bottom ported
Fluid	Air/Inert gas
Operating pressure	0 to 0.8 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Effective area	1 mm ²
Lubrication	Not required (Use turbine oil Class 1 ISO VG32, if lubricated.)
Fitting	With hose nipple
Weight (Basic)	6 g

Option

Total travel (T.T.)	2.5 mm (Basic)
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- A commercially available actuator for the V microswitch can be installed.
- However, be aware that there are different microswitches, such as the P.T./O.T. or F.O.F. types.
- T.T. 2.5 mm is available for basic style only.

Model

	Actuator	Piping	Number of ports	Applicable tubing		Note	
				T0425	TU0425/ET0403		
Mechanical operation	Basic	Side ported	3 port	VM1000-4N-00	VM1000-4NU-00		
			2 port	VM1100-4N-00	VM1100-4NU-00		
		Bottom ported	3 port	VM1010-4N-00	VM1010-4NU-00		
			2 port	VM1110-4N-00	VM1110-4NU-00		
	Roller lever	Side ported	3 port	VM1000-4N-01	VM1000-4NU-01		
			2 port	VM1100-4N-01	VM1100-4NU-01		
		Bottom ported	3 port	VM1010-4N-01	VM1010-4NU-01		
			2 port	VM1110-4N-01	VM1110-4NU-01		
	One way roller lever	Side ported	3 port	VM1000-4N-02	VM1000-4NU-02		
			2 port	VM1100-4N-02	VM1100-4NU-02		
Bottom ported		3 port	VM1010-4N-02	VM1010-4NU-02			
		2 port	VM1110-4N-02	VM1110-4NU-02			
Manual operation	Toggle lever	Side ported	3 port	VM1000-4N-08	VM1000-4NU-08		
			2 port	VM1100-4N-08	VM1100-4NU-08		
		Bottom ported	3 port	VM1010-4N-08	VM1010-4NU-08		
			2 port	VM1110-4N-08	VM1110-4NU-08		
	Push button	Side ported	3 port	VM1000-4N-32R	VM1000-4NU-32R	Red	
			2 port	VM1100-4N-32R	VM1100-4NU-32R	Red	
			Bottom ported	3 port	VM1010-4N-32R	VM1010-4NU-32R	Red
				2 port	VM1110-4N-32R	VM1110-4NU-32R	Red
		Side ported	3 port	VM1000-4N-32B	VM1000-4NU-32B	Black	
			2 port	VM1100-4N-32B	VM1100-4NU-32B	Black	
			Bottom ported	3 port	VM1010-4N-32B	VM1010-4NU-32B	Black
				2 port	VM1110-4N-32B	VM1110-4NU-32B	Black
		Side ported	3 port	VM1000-4N-32G	VM1000-4NU-32G	Green	
			2 port	VM1100-4N-32G	VM1100-4NU-32G	Green	
			Bottom ported	3 port	VM1010-4N-32G	VM1010-4NU-32G	Green
				2 port	VM1110-4N-32G	VM1110-4NU-32G	Green

Note) To replace the push button and push button cover alone, refer to page 5-6-7. Other parts and actuator cannot be replaced.

How to Order

VM1 0 0 0 4N 00 R

• Applicable tubing (Material/Size)		• Actuator type		• Color of push button	
4N	Nylon ø4/2.5 (T0425)	00	Basic	R	Red
	Nylon ø4/3 (T0403)	01	Roller lever	G	Green
4NU	Soft Nylon ø4/2.5 (TS0425)	02	One way roller lever	B	Black
	Polyurethane ø4/2.5 (TU0425)	08	Toggle lever		
		32	Push button		

• Total travel/Basic (T.T.)	
0	4.8 mm
1	2.5 mm (Option)*

* Basic only.

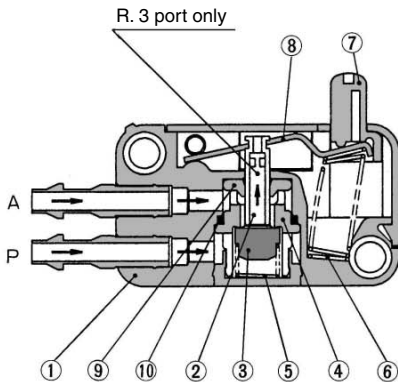
• Piping	
0	Side ported
1	Bottom ported

• Number of ports	
0	3 port
1	2 port

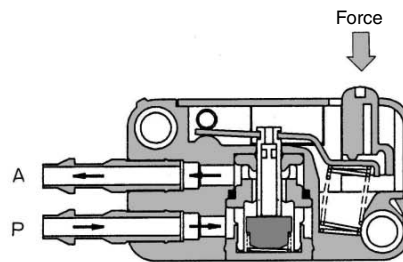
- A
- A
- A
- A
- VM
- VR
- VH
- VHS

Construction

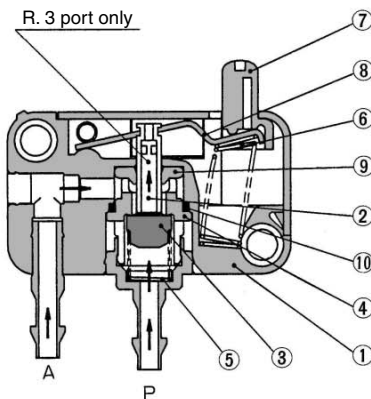
Side ported/Non-actuated



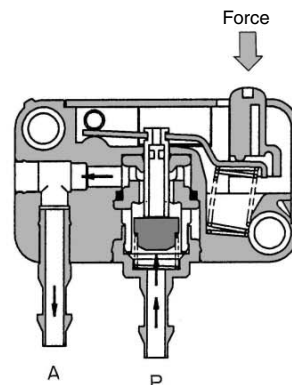
Side ported/Actuated



Bottom ported/Non-actuated



Bottom ported/Actuated



Component Parts

No.	Description	Material	Note
①	Body	PBT	
②	Valve	POM	
③	Valve	NBR	
④	Retainer	POM	
⑤	Spring	Stainless steel	

No.	Description	Material	Note
⑥	Spring	Stainless steel	
⑦	Plunger	POM	T.T. = 2.5 mm only, w/threads
⑧	Lever	Stainless steel	
⑨	Packing	NBR	
⑩	O-ring	NBR	

Series VM1000

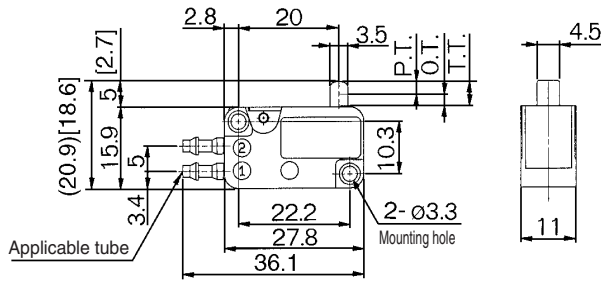
Series VM1000/Side Ported

Basic

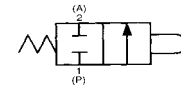
VM1000-4N-00
VM1000-4NU-00
VM1100-4N-00
VM1100-4NU-00



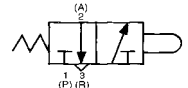
Ⓜ: T.T. = 2.5 mm



JIS Symbol/2 port



3 port

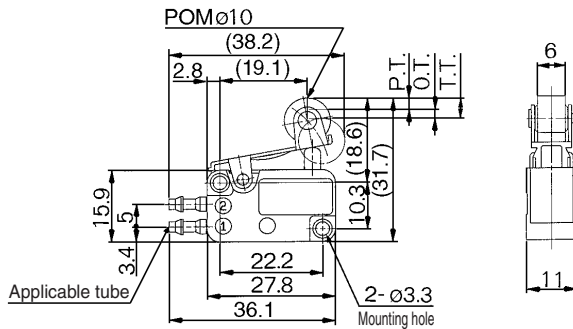


* 0.5 MPa supply

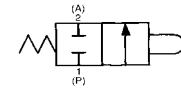
		Applicable tubing	
		T0425	TU0425, T0403, TS0425
Side ported	3 port	VM1000-4N-00	VM1000-4NU-00
	2 port	VM1100-4N-00	VM1100-4NU-00
F.O.F. *		6 N	
P.T.		2.5 mm [2.0 mm]	
O.T.		2.3 mm [0.5 mm]	
T.T.		4.8 mm [2.5 mm]	

Roller lever

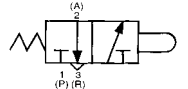
VM1000-4N-01
VM1000-4NU-01
VM1100-4N-01
VM1100-4NU-01



JIS Symbol/2 port



3 port

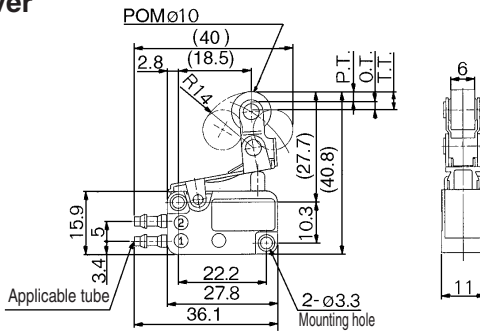


* 0.5 MPa supply

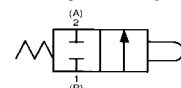
		Applicable tubing	
		T0425	TU0425, T0403, TS0425
Side ported	3 port	VM1000-4N-01	VM1000-4NU-01
	2 port	VM1100-4N-01	VM1100-4NU-01
F.O.F. *		6 N	
P.T.		2.5 mm	
O.T.		2.0 mm	
T.T.		4.5 mm	

One way roller lever

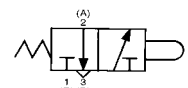
VM1000-4N-02
VM1000-4NU-02
VM1100-4N-02
VM1100-4NU-02



JIS Symbol/2 port



3 port

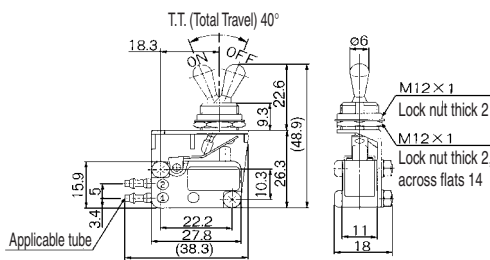


* 0.5 MPa supply

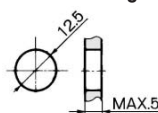
		Applicable tubing	
		T0425	TU0425, T0403, TS0425
Side ported	3 port	VM1000-4N-02	VM1000-4NU-02
	2 port	VM1100-4N-02	VM1100-4NU-02
F.O.F. *		6 N	
P.T.		2.5 mm	
O.T.		2.0 mm	
T.T.		4.5 mm	

Toggle lever

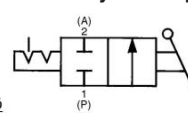
VM1000-4N-08
VM1000-4NU-08
VM1100-4N-08
VM1100-4NU-08



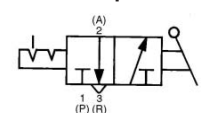
Panel mounting hole



JIS Symbol/2 port



3 port

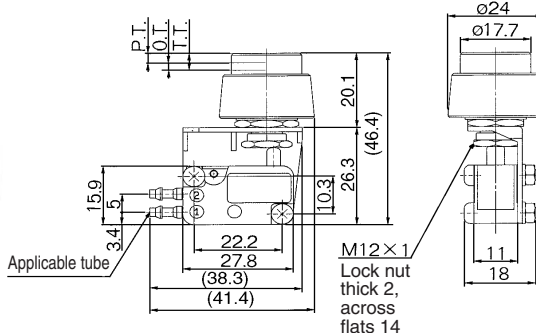


* 0.5 MPa supply

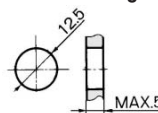
		Applicable tubing	
		T0425	TU0425, T0403, TS0425
Side ported	3 port	VM1000-4N-08	VM1000-4NU-08
	2 port	VM1100-4N-08	VM1100-4NU-08
F.O.F. *		4 N	
P.T.		40°	

Push button

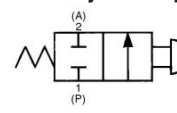
VM1000-4N-32
VM1000-4NU-32
VM1100-4N-32
VM1100-4NU-32



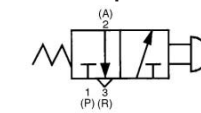
Panel mounting hole



JIS Symbol/2 port



3 port



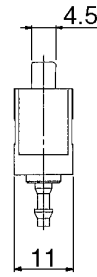
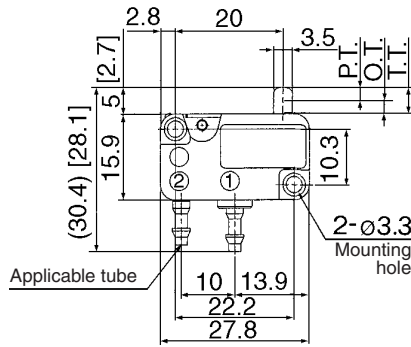
* 0.5 MPa supply

		Applicable tubing	
		T0425	TU0425, T0403, TS0425
Side ported	3 port	VM1000-4N-32	VM1000-4NU-32
	2 port	VM1100-4N-32	VM1100-4NU-32
F.O.F. *		6 N	
P.T.		2.5 mm	
O.T.		2.0 mm	
T.T.		4.5 mm	

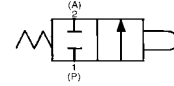
Series VM1000/Bottom Ported

Basic

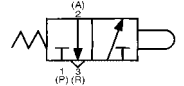
VM1010-4N-00
VM1010-4NU-00
VM1110-4N-00
VM1110-4NU-00



JIS Symbol/2 port



3 port

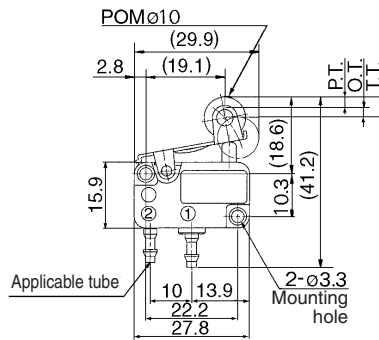


* 0.5 MPa supply

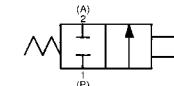
		Applicable tubing	
		T0425	TU0425, T0403, TS0425
Bottom ported	3 port	VM1010-4N-00	VM1010-4NU-00
	2 port	VM1110-4N-00	VM1110-4NU-00
F.O.F. *		6 N	
P.T.		2.5 mm	
O.T.		2.3 mm [0.5 mm]	
T.T.		4.8 mm [2.5 mm]	

Roller lever

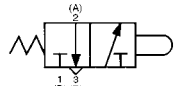
VM1010-4N-01
VM1010-4NU-01
VM1110-4N-01
VM1110-4NU-01



JIS Symbol/2 port



3 port

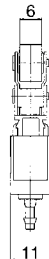
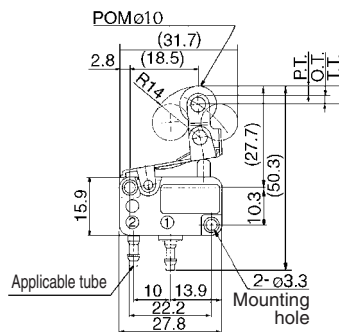


* 0.5 MPa supply

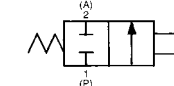
		Applicable tubing	
		T0425	TU0425, T0403, TS0425
Bottom ported	3 port	VM1010-4N-01	VM1010-4NU-01
	2 port	VM1110-4N-01	VM1110-4NU-01
F.O.F. *		6 N	
P.T.		2.5 mm	
O.T.		2.0 mm	
T.T.		4.5 mm	

One way roller lever

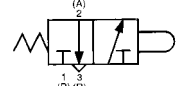
VM1010-4N-02
VM1010-4NU-02
VM1110-4N-02
VM1110-4NU-02



JIS Symbol/2 port



3 port

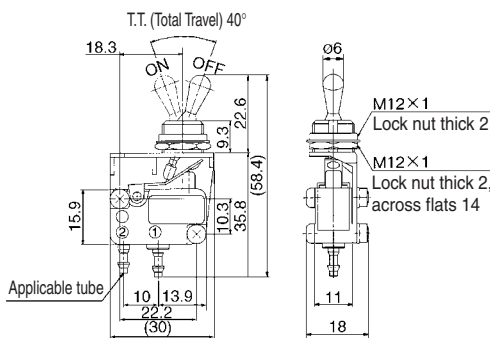


* 0.5 MPa supply

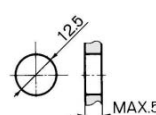
		Applicable tubing	
		T0425	TU0425, T0403, TS0425
Bottom ported	3 port	VM1010-4N-02	VM1010-4NU-02
	2 port	VM1110-4N-02	VM1110-4NU-02
F.O.F. *		6 N	
P.T.		2.5 mm	
O.T.		2.0 mm	
T.T.		4.5 mm	

Toggle lever

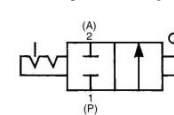
VM1010-4N-08
VM1010-4NU-08
VM1110-4N-08
VM1110-4NU-08



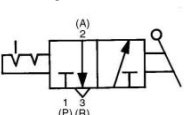
Panel mounting hole



JIS Symbol/2 port



3 port

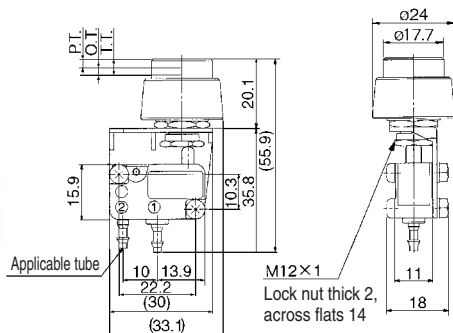


* 0.5 MPa supply

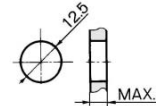
		Applicable tubing	
		T0425	TU0425, T0403, TS0425
Bottom ported	3 port	VM1010-4N-08	VM1010-4NU-08
	2 port	VM1110-4N-08	VM1110-4NU-08
F.O.F. *		4 N	
T.T.		40°	

Push button

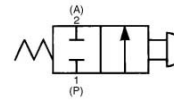
VM1010-4N-32
VM1010-4NU-32
VM1110-4N-32
VM1110-4NU-32



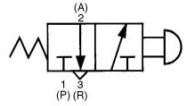
Panel mounting hole



JIS Symbol/2 port



3 port



* 0.5 MPa supply

		Applicable tubing	
		T0425	TU0425, T0403, TS0425
Bottom ported	3 port	VM1010-4N-32	VM1010-4NU-32
	2 port	VM1110-4N-32	VM1110-4NU-32
F.O.F. *		6 N	
P.T.		2.5 mm	
O.T.		2.0 mm	
T.T.		4.5 mm	