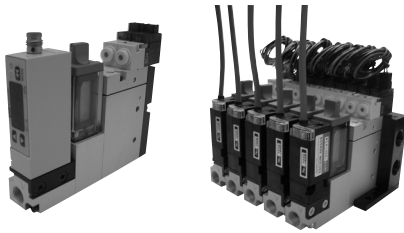


# Vacuum switching valve MPV3 series



- For use with vacuum pump system
- All in one unit

Vacuum sensor, integrated filter, solenoid valve for vacuum and blow-off

- Manifold option available

Up to 8 units

## How to order

Keep blank in case of unit type

MPV3 ① S ② 2 ③ N ④ AB ⑤ 24 ⑥ B ⑦ L ⑧ 3 ⑨ 1 ⑩ 2 ⑪ L

① Body type

S	Units type
M	Manifold type

② Vacuum port

2	Rc1/8 type
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③ Vacuum flow control

N	Adjustable type
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④ Vacuum sensor

Series	Description	Pressure	Display	Signal
AB	MVS-030AB	Vacuum	LED	Output
35G	MVS-035G	Vacuum	LED	Output, analog output
V2G	MPS-V23C	Vacuum	Digital	Output, analog output
R2G	MPS-R23C	Compound	Digital	Output, analog output
201	MVS-201	Compound	Digital	Output, input
Z	Without sensor			

⑤ Solenoid valve voltage

1	DC12V ★
2	DC24V
3	AC100V
4	AC200V ★

Note) ★ are made to order.

⑥ Vacuum valve function

A	Normally open
B	Normally closed

⑦ Solenoid valve wiring

L	Connector type
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⑧ Set side (Manifold type only)

R	Placed to the right
L	Placed to the left
Blank	When ⑧&⑩ are same

⑩ Number of bodies (Manifold type only)

1	1 unit ★	5	5 units
2	2 units	6	6 units ★
3	3 units	7	7 units ★
4	4 units	8	8 units ★

Note) ★ are made to order

⑨ Number of block plates (Manifold type only)

0	none	4	4 units
1	1 unit ★	5	5 units ★
2	2 units	6	6 units ★
3	3 units	7	7 units ★

Note) ★ are made to order

⑪ Number of units (Manifold type only)

1	1 unit ★	5	5 units
2	2 units	6	6 units ★
3	3 units	7	7 units ★
4	4 units	8	8 units ★

Note) ★ are made to order

## Maintenance parts

- Solenoid valve (delivered with gasket and screw)  
Common valve for vacuum generation and blow-off  
(common reference with MC2 vacuum ejector)

MC2 - ① 24 ② B ③ 5

① Voltage

12	DC12V ★
24	DC24V
100	AC100V
200	AC200V ★

Note 1) AC200 is AC100V connected with a converter  
Note 2) ★ are made to order

③ Lead wire length

5	500mm
15	1500mm

② Valve function

A	Normally open
B	Normally closed

Note) For air operated type, please select normally closed.

- Manifold base

MPV3 - M - 1

① Number of units			
1	1 unit ★	5	5 units
2	2 units	6	6 units ★
3	3 units	7	7 units ★
4	4 units	8	8 units ★

Delivered with plug and screw.  
Note) ★ are made to order

- Vacuum sensor with O-ring and screw

MVS - 030AB - MPV3

MVS - 035G - MPV3

MPS - V23C - NGA - MPV3

MPS - R23C - NGA - MPV3

MVS - 201 - MPV3

Note) Please check details p.611

- Vacuum filter

MC2 - E

E	Element
F	Filter kit (with element)
U	Filter unit (with base)

- Block plate for manifold

MPV3 - MM

## Specifications

Series	Units	MPV3	
		Solenoid valve (vacuum)	Solenoid valve (blow-off)
Fluid		Vacuum pressure	Non-lubricated air
Ambient temperature	℃	0 ~ 50(without freezing)	
Pressure range (VP, DP)		-90 ~ 0kPa	0.3 ~ 0.5MPa
Vacuum valve function		Normally open、Normally closed	
Filtration rate	μm	37	
Type of control valve		Pilot operated poppet	
Effective area	mm <sup>2</sup>	5.1	2.6
Control flow *1	ℓ /min (ANR)	About 50 (when -80kPa)	About 60 (when 0.5MPa)
Mass (Unit type without sensor)	g	253	

Note 1) Value is when pressure is -80 kPa.

## Solenoid valve specifications

Voltage	V	AC100、200 (50,60Hz)	DC24
	%	± 10	
Power consumption	W	—	0.6
Apparent power	VA	1.2	—
Thermal class		Class E	
Manual operation		Driver operating locking manual override	
Display surge killer		LED, diod	
Wiring		Lead wire with connector	

## Vacuum sensor specifications

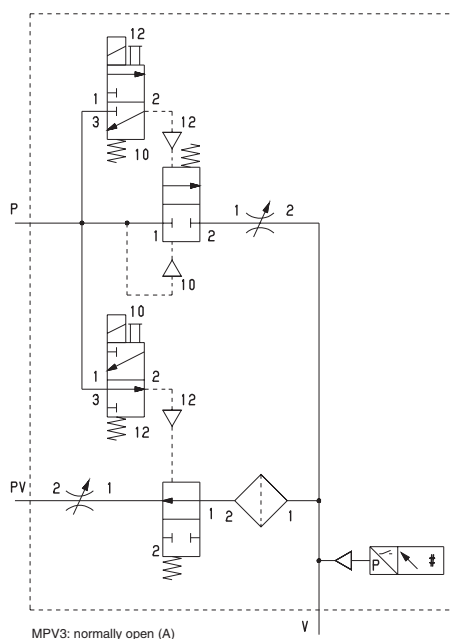
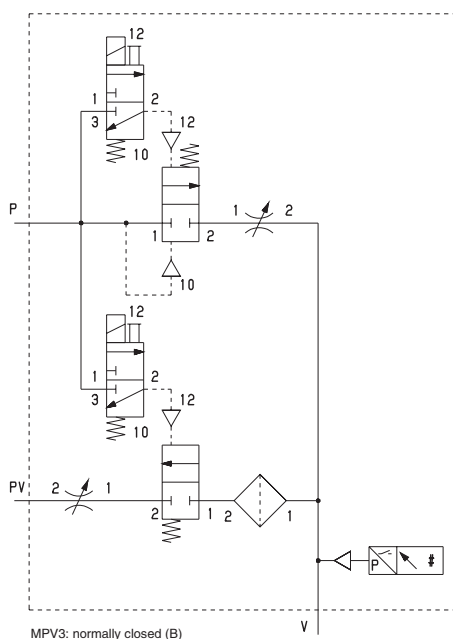
	Units	MVS-030	MVS-035	MPS-V23	MPS-R23	MVS-201
Fluid		Vacuum pressure				
Pressure range	kPa	-10 ~ -101	-3 ~ -101	0 ~ -101	500 ~ -101	500 ~ -101
Ambient temperature	℃	0 ~ 50				
Signal		Output	Output Analog signal	Output Analog signal	Output Analog signal	Output Input
Display		LED	LED	Digital	Digital	Digital
Voltage	V	DC12 ~ 24				

Note) Please check details p.611

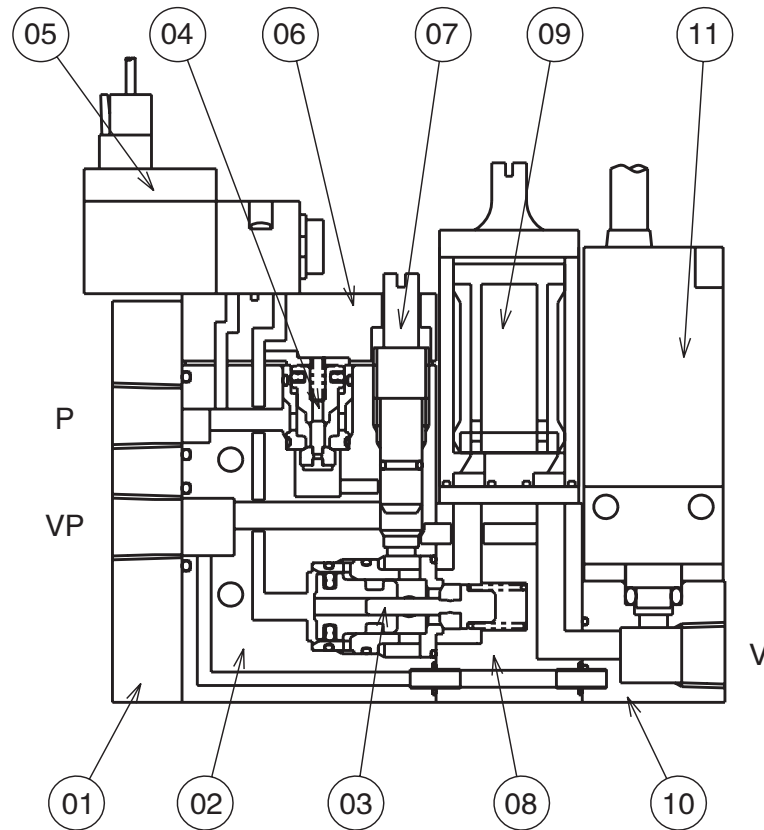
Note) For MVS-201, solenoid valves (both vacuum and blow-off) are normally open.

In case of normally closed type needed, please consult with us.

## Symbol



## Construction

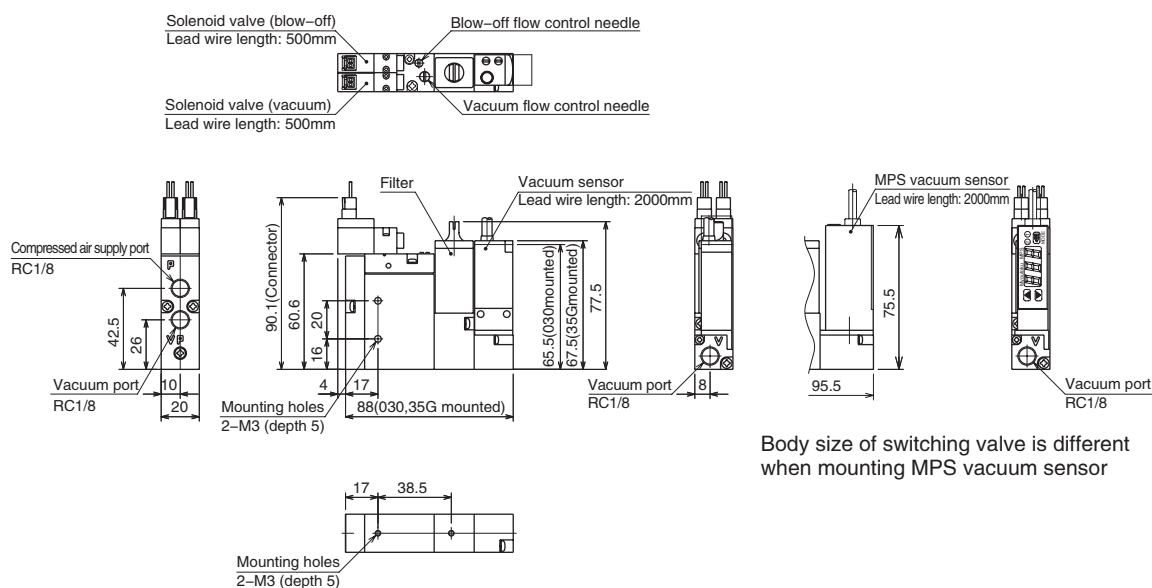


No.	Part name	Materials
1	Air supply base	Aluminium
2	Body	Aluminium
3	Poppet valve for vacuum	Aluminium, NBR, SUS
4	Poppet valve for blow-off	Aluminium, NBR, SUS
5	Solenoid valve	–
6	Up plate	Aluminium
7	Vacuum flow control needle	Brass
8	Filter base	Aluminium
9	Filter assembly	–
10	Sensor base	Aluminium
11	Vacuum sensor	–

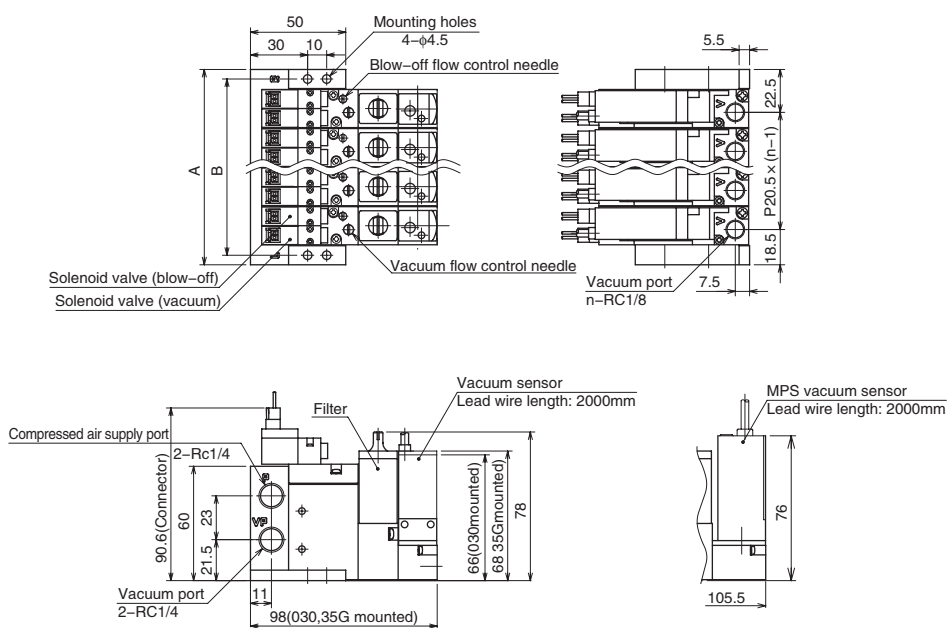
## Dimensions

(mm)

### Unit type



### Manifold type



n (number of units)

	1 unit	2 units	3 units	4 units	5 units	6 units	7 units	8 units
A	41	61.5	82	102.5	123	143.5	164	184.5
B	31	51.5	72	92.5	113	133.5	154	174.5