

Compact and light weight vacuum ejector unit dedicated for manifolds - greatly reduces vacuum break time.

VSZM Series

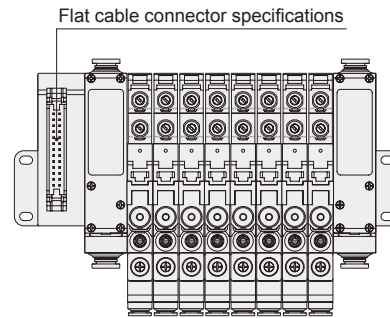
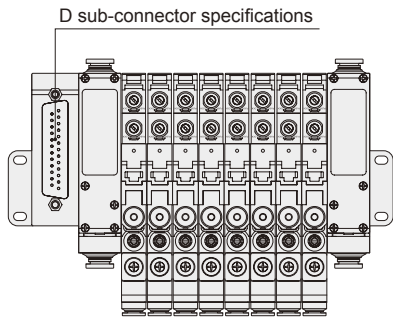
- Nozzle diameter: $\varnothing 0.5$, $\varnothing 0.7$, $\varnothing 1.0$



Features

Ejector system

- Atmospheric pressure break of large flow rates is possible by installing an atmospheric pressure break valve, thereby greatly reducing the vacuum break time.
- Wiring for the vacuum generator valve and vacuum break valve.



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- Either a single solenoid or self holding valve is selected.
- This energy-conserving suppresses the valve consumption to 0.55 W.
- The diverse lineup of vacuum switch variations is compatible with different applications.



Analog output type



1 point output type without display



1 point output + analog output type with LED display



2 point output type with LED display

VSZM

- Manifold stations are increased, allowing specification changes to be handled flexibly.
- Maintenance is easy with the structure taking serviceability into consideration.
- Either the standard push-in joint or female screw piping is selected based on the application.
- Three nozzle diameters are available: 0.5 mm, 0.7 mm, and 1.0 mm.

Specifications

Descriptions	VSZM
Working fluid	Air
Working pressure range MPa	0.3 to 0.7
Ambient temperature range °C	5 to 50

Ejector characteristics

Model no.	Nozzle diameter (mm)	Supply pressure (MPa)	Ultimate vacuum (-kPa)	Suction flow (ℓ/min. (ANR))	Air consumption flow (ℓ/min. (ANR))
VSZM-H05	0.5	0.5	90.4	7	11.5
VSZM-L05			66.5	12	
VSZM-H07	0.7	0.5	93.1	13	23
VSZM-L07			66.5	24	
VSZM-E07		0.35	90.4	10	
VSZM-H10	1.0	0.5	93.1	24	46
VSZM-E10		0.35	90.4	20	34

Solenoid valve specifications

● Pilot valve

Descriptions	Vacuum generator valve	Vacuum break valve
Actuation	Direct operation	
Valve structure	Rubber seal, poppet valve	
Rated voltage	24 VDC	
Tolerable voltage fluctuation range	21.6 VDC to 26.4 VDC	
Surge protective circuit	Surge absorber	
Power consumption	0.55W (with LED)	
Operational indicator light	During coil excitation: red LED ON	During coil excitation: yellow green LED ON
Manual operation	Push & lock type	
Wiring method	D sub-connector, flat cable connector	

● Switching valve

Descriptions	Vacuum generator valve		Vacuum break valve
Actuation	Indirect operation with pilot valve		
Valve structure	Rubber seal, poppet valve		
Valve function	Single solenoid	Self hold	Single solenoid
Valve type	Normally closed		
Pressure resistance	1.05MPa		
Lubrication	Not required		
Effective sectional area (Cv flow factor)	4.5mm ² (0.24)		3.5mm ² (0.19)
Response time	OFF → ON	10msec	10msec
	ON → OFF	15msec	15msec

Vacuum switch specifications

Descriptions	Vacuum switch with LED display		Without display	Separate type	Analog	
	2 point switch output	1 point switch output	1 point switch output	Pressure indication gauge w/ switch		
Current consumption	40mA		20mA	50mA	20mA	
Pressure detection method	Diffused semiconductor pressure sensor			-	Diffused semiconductor pressure sensor	
Working pressure range	-100 to 0kPa			-	-100 to 0kPa	
Set pressure range	-99 to 0kPa			-999 to 999counts	-	
Withstanding pressure	0.2MPa			-	0.2MPa	
Storage temperature range	-20 to 80°C			-20 to 70°C		
Working temperature range	0 to 50°C		-10 to 60°C	-10 to 50°C	-10 to 60°C	
Working humidity range	35 to 85%RH					
Power voltage	12 to 24VDC ±10% ripple (P-P) 10% or less		10.8 to 30 VDC (including ripple)			
Protective structure	IEC standards IP40 or equivalent					
Switch output point	2	1	1	2	-	
Switch operation precision	±0.3%F.S. Max. (at Ta = 25°C)				-	
Hysteresis	Fixing	Variable	Fixing	Variable	-	
Switch output	NPN open collector output				-	
Analog output	Output voltage	-	1 to 5V	-	1 to 5V	
	Zero point voltage	-	1±01 V	-	1±01 V	
	Span voltage	-	4±0.1 V	-	4±0.1 V	
	Output current	-	1mA or less	-	0.5mA or less	1mA or less
	LIN/HYS	-	±0.5%F.S. Max.	-	±0.5%F.S. Max.	
Display	0 to -99kPa (2 digit red LED display)		-	3 digit red LED display	-	
Number of displays	Approx. 4 times/sec.		-	Approx. 4 times/sec.	-	
Display accuracy	±3%F.S. ±2digit		-	±1%F.S.	-	
Resolution	1digit		-	1digit	-	
Switch operational indicator light	Red LED turns ON when SW1 output is ON			Green LED turns ON when SW1 output is ON	-	
	Green LED turns ON when SW2 output is ON		-	Red LED turns ON when SW2 output is ON	-	

Vacuum break

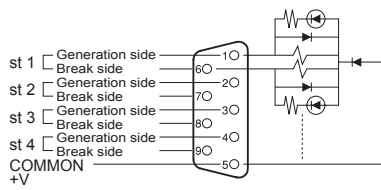
Descriptions	Vacuum break valve	
Vacuum break air flow rate	0 to 50l/min. (ANR) 0.5MPa supply	
Atmospheric pressure break valve	Actuation	Indirect operation with air pressure
	Valve structure	Rubber sealant, poppet valve
	Valve type	Normally open
	Lubrication	Not required
	Orifice	3.5mm or equivalent

Vacuum filter specifications

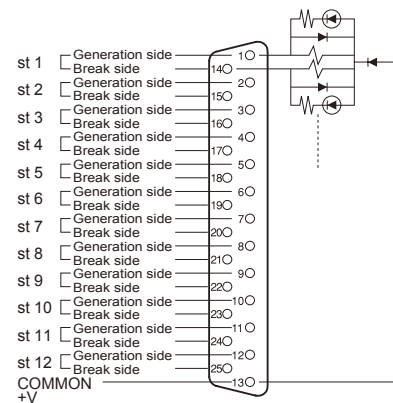
Descriptions	Vacuum filter
Element material	PVF (poly-vinyl formal)
Filtration	10µm
Element surface area	660mm ²
Replacement filter element model no.	VSZM-E

Electric circuit (solenoid valve)

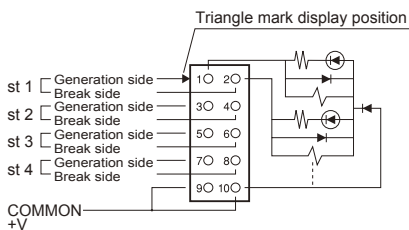
● D sub-connector
9 pin



25 pin

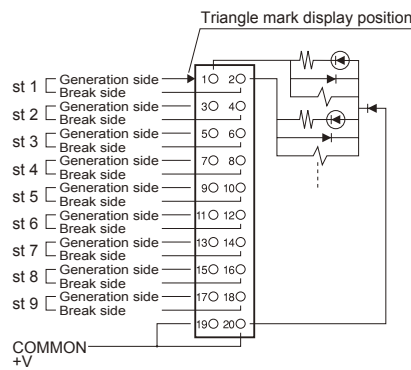


● Flat cable connector
10 pin



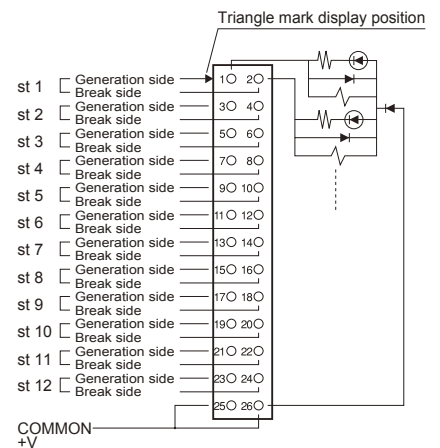
(Note) COMMON (+V) pins No. 9 and 10 are short-circuited internally.

20 pin



(Note) COMMON (+V) pins No. 19 and 20 are short-circuited internally.

26 pin



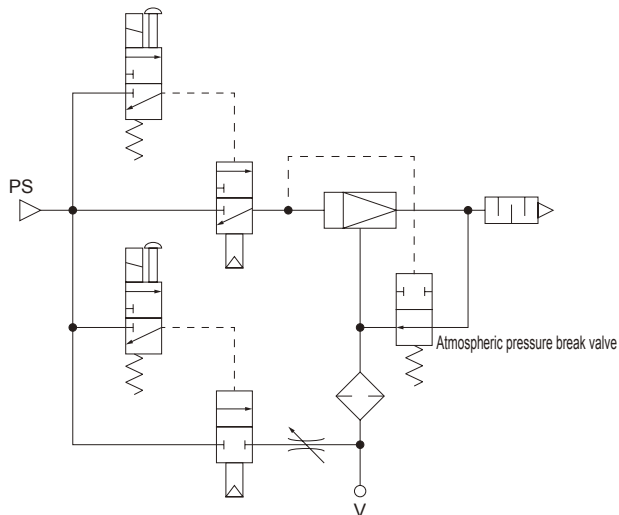
(Note) COMMON (+V) pins No. 25 and 26 are short-circuited internally.

Note 1: Generation side ... Vacuum generation side coil

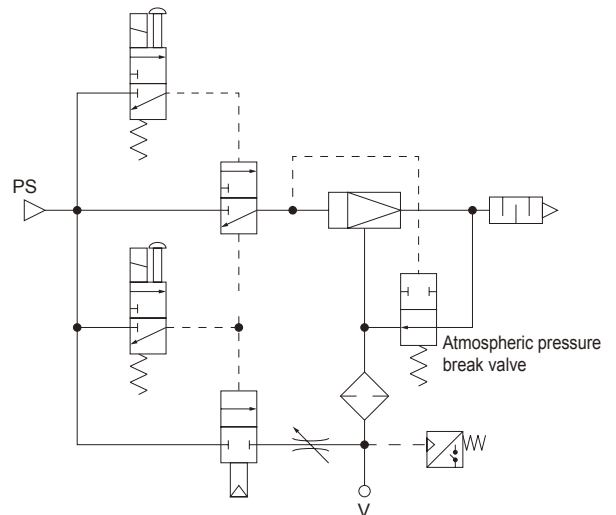
Note 2: Break side ... Vacuum break side coil

Circuit diagram

● Normally closed type



● Self hold type



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How to order

● 11mm pitch manifold dedicated vacuum ejector unit

VSZM - H 05 D - 6 8 8 - 3 - 8 - S - F 20

● 11mm pitch manifold dedicated vacuum ejector unit, ejector unit assembly

VSZM - H 07 M5 S

● 11mm pitch manifold dedicated vacuum ejector unit, valve unit assembly

VSZM V D 3

● 11mm pitch manifold dedicated vacuum ejector unit, manifold only

VSZM 10 10 8 F 20

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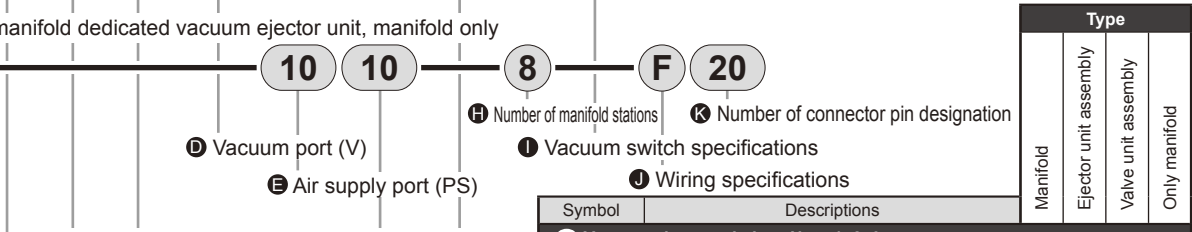
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A Vacuum characteristics

B Nozzle diameter

C Valve type

F Exhaust port (EX)

G Solenoid valve voltage

Type			
Manifold	Ejector unit assembly	Valve unit assembly	Only manifold

Symbol	Descriptions
--------	--------------

A Vacuum characteristics Note 1, 2, 3			
H	High vacuum/medium flow type	●	●
L	Medium vacuum/large flow rate type	●	●
E	High vacuum/small flow rate type	●	●
Z	For mixed specifications (Indicate details in specification sheet.)	●	

B Nozzle diameter Note 1, 2, 3			
05	ø0.5	●	●
07	ø0.7	●	●
10	ø1.0	●	●
00	For mixed specifications (Indicate details in specification sheet.)	●	

C Valve type Note 2			
B	Normally closed type	●	●
D	Self hold type	●	●
Z	For mixed specifications (Indicate details in specification sheet.)	●	

D Vacuum port (V) Note 2			
4	ø4 push-in joint	●	●
6	ø6 push-in joint	●	●
M5	M5 x 0.8	●	●
CX	For mixed joint (Indicate details in specification sheet.)	●	

E Air supply port (PS)			
6	ø6 push-in joint	●	●
8	ø8 push-in joint	●	●
10	ø10 push-in joint	●	●

F Exhaust port (EX)			
S	Atmospheric release with silencer	●	●
6	ø6 push-in joint common exhaust	●	●
8	ø8 push-in joint common exhaust	●	●
10	ø10 push-in joint common exhaust	●	●

G Solenoid valve voltage			
3	24 VDC	●	●

H Number of manifold stations Note 5			
2	2 stations	●	●
to	to		
12	12 stations	●	●

I Vacuum switch specifications Note 2			
Blank	Without vacuum switch	●	●
DW	2-point NPN output with LED display	●	●
DA	NPN output 1 point + analog output with LED display	●	●
S	1 point NPN output without display	●	●
V1	Analog output for negative pressure	●	●
V2	Separate type LED display + analog output for negative pressure	●	●
R1	Analog output for compound pressure	●	●
R2	Separate type LED display + analog output for compound pressure	●	●
Z	For mixed specifications (Indicate details in specification sheet.)	●	

J Wiring specifications Note 4			
F	Flat cable connector	●	●
D	D sub-connector	●	●

K Number of connector pin designation Note 4			
Refer to Table 1 for number of connector pin designation		●	●

⚠ Note on model no. selection

Note 1: The **A** **B** "E05" and "L10" combinations cannot be selected.

Note 2: Indicate "Mixed manifold specifications" when selecting mixed specifications. Refer to page 162 for details.

Note 3: Only **B** "00" is selectable for **A** "Z". Only **A** "Z" is selectable for **B** "00".

Note 4: When **K** "20" and "26", **J** "D" can not be selected.

When **K** "25", **J** "F" can not be selected.

Note 5: The number of stations operated simultaneously differs with nozzle diameter and port size combination. Consult with CKD for details.

● Model no.

· Filter element

VSZM-E

· Silencer element

VSZM-SE

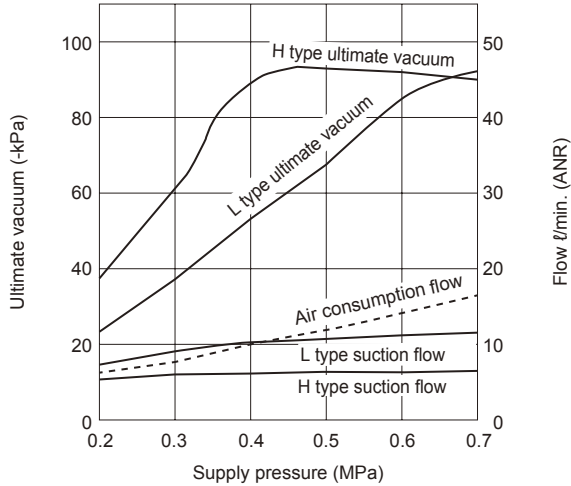
Table 1

Number of connector pin designation	
Blank	For flat cable specifications 2 to 4 stations: 10 pins 5 to 9 stations: 20 pins 10 to 12 stations: 26 pins For D sub-connector specifications 2 to 4 stations: 9 pins 5 to 12 stations: 25 pins
20	20 pin flat cable connector (max.9 stations)
26	26 pin flat cable connector (max.12 stations)
25	25 pin D sub-connector (max.12 stations)

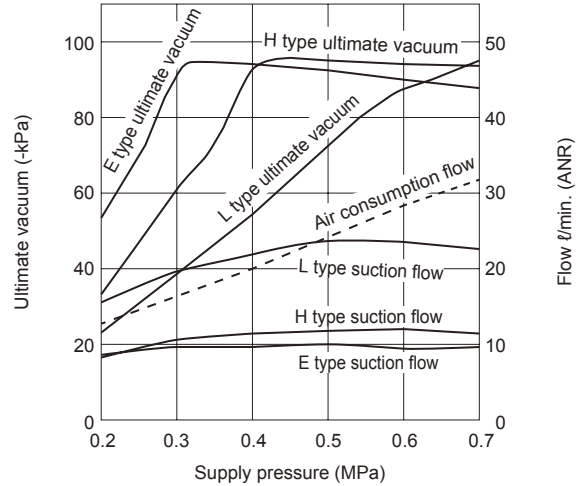
Vacuum characteristics

Supply pressure - ultimate vacuum, suction flow, consumed flow

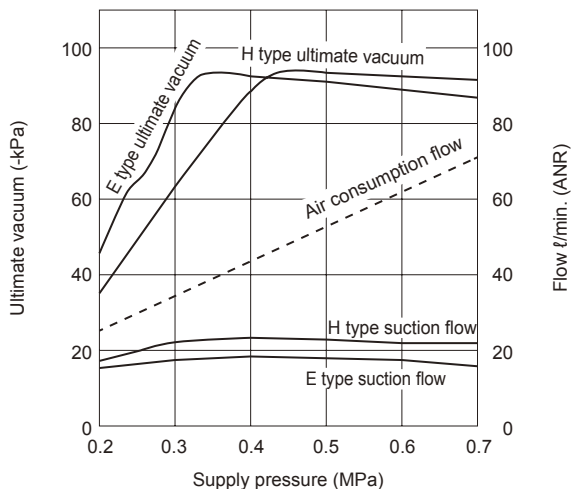
● VSZM-H05, VSZM-L05



● VSZM-H07, VSZM-L07, VSZM-E07



● VSZM-H10, VSZM-E10

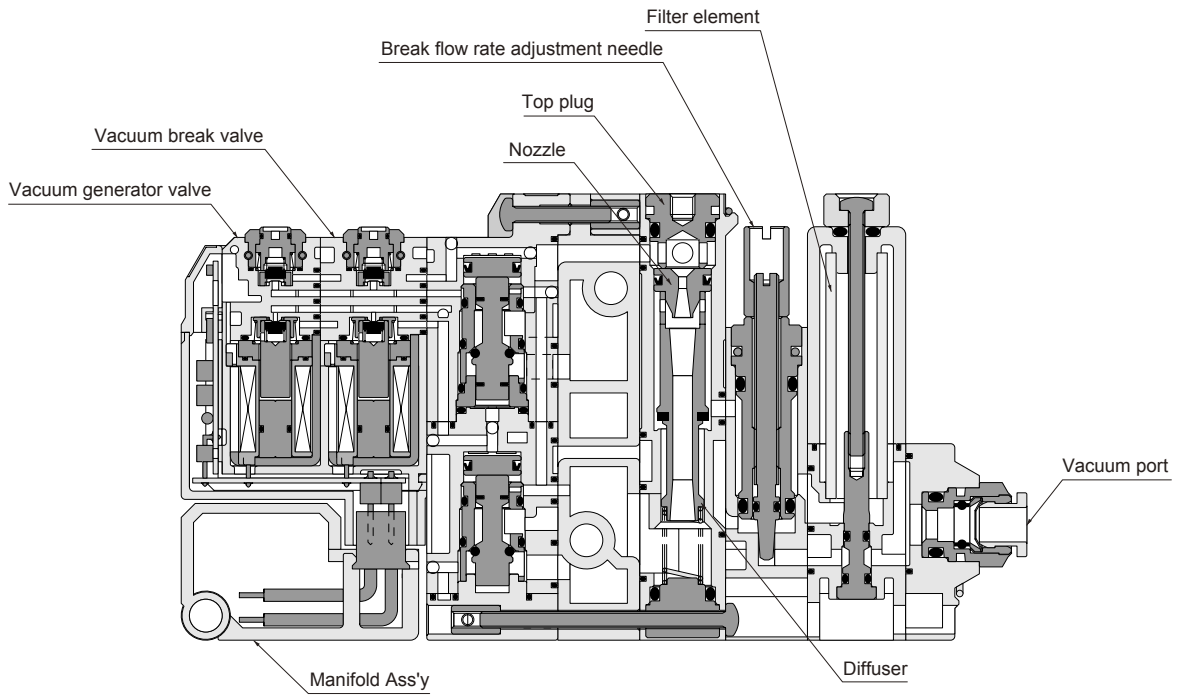


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VSX VSXM
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- The supply pressure above applies at vacuum generation.
- An abnormal popping may sound at the supply pressure (H type: 0.4 to 0.45 MPa, E type: 0.29 to 0.32 MPa) just before the ultimate vacuum peaks. This abnormal noise is because characteristics are unstable and increases with instability. This may adversely affect the sensor, etc. Reset supply pressure.
 - (e.g. 1. When the H vacuum ejector operates with a base pressure of 0.5 MPa, an abnormal noise sounds when supply pressure drops to 0.43 MPa due to a pressure drop. → Reset the supply pressure to 0.5 MPa when the vacuum ejector operates.)
- Select piping and components using a sectional area 3 times larger than the nozzle diameter. Satisfactory vacuum cannot be attained if a sufficient air flow cannot be ensured.
 - (Popping occurs at the set pressure if the intake flow is insufficient, the ultimate vacuum cannot be attained, etc.)
 - (e.g. 2. An abnormal noise sounds even when using the H vacuum ejector at a working pressure of 0.5MPa. → The air flow is insufficient. (The air flow is restricted preceding the vacuum ejector due to piping resistance, etc., keeping satisfactory air flow from being attained. → Select piping components that provide the required effective section.)
 - (e.g. 3. When using the vacuum ejector with a 1.0 mm nozzle diameter, cross-sectional area is $0.5^2 \times \pi = 0.785 \text{ mm}^2 \times 3 = 2.35 \text{ mm}^2$. Select piping and devices that ensure an effective section of 2.3 mm² or more.

Internal structure drawing

● Without vacuum switch



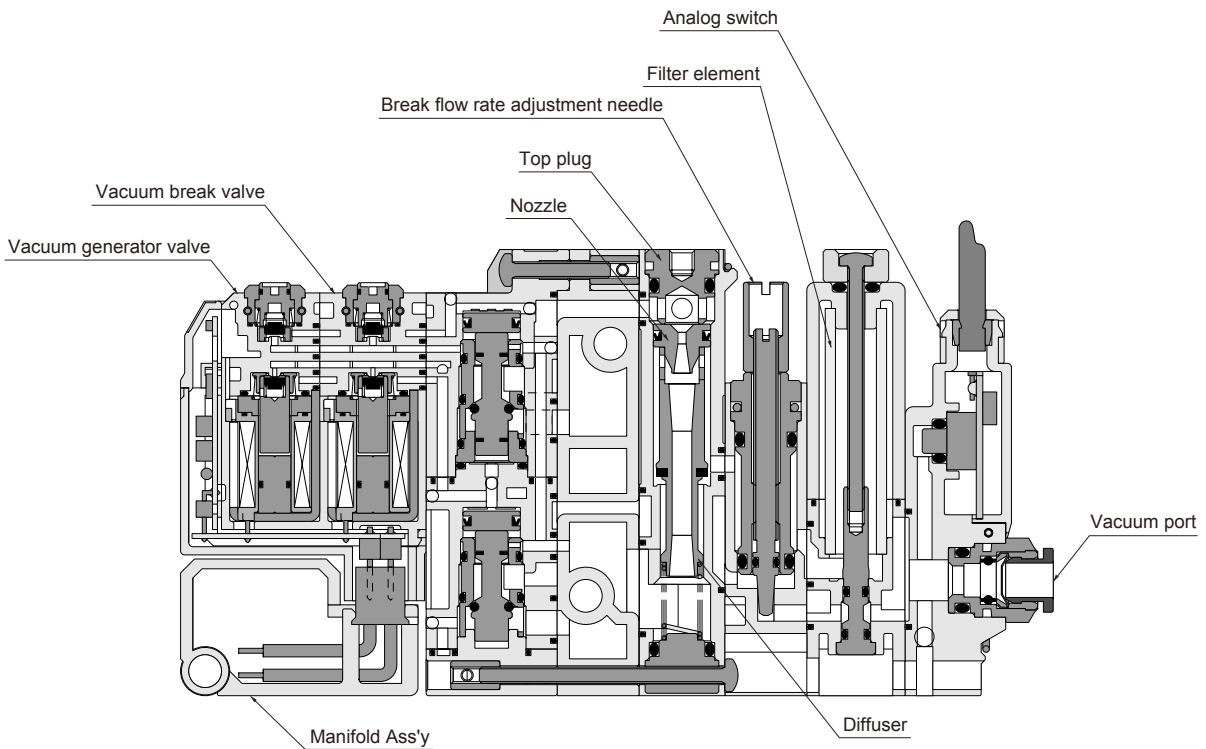
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● Vacuum switch with analog output



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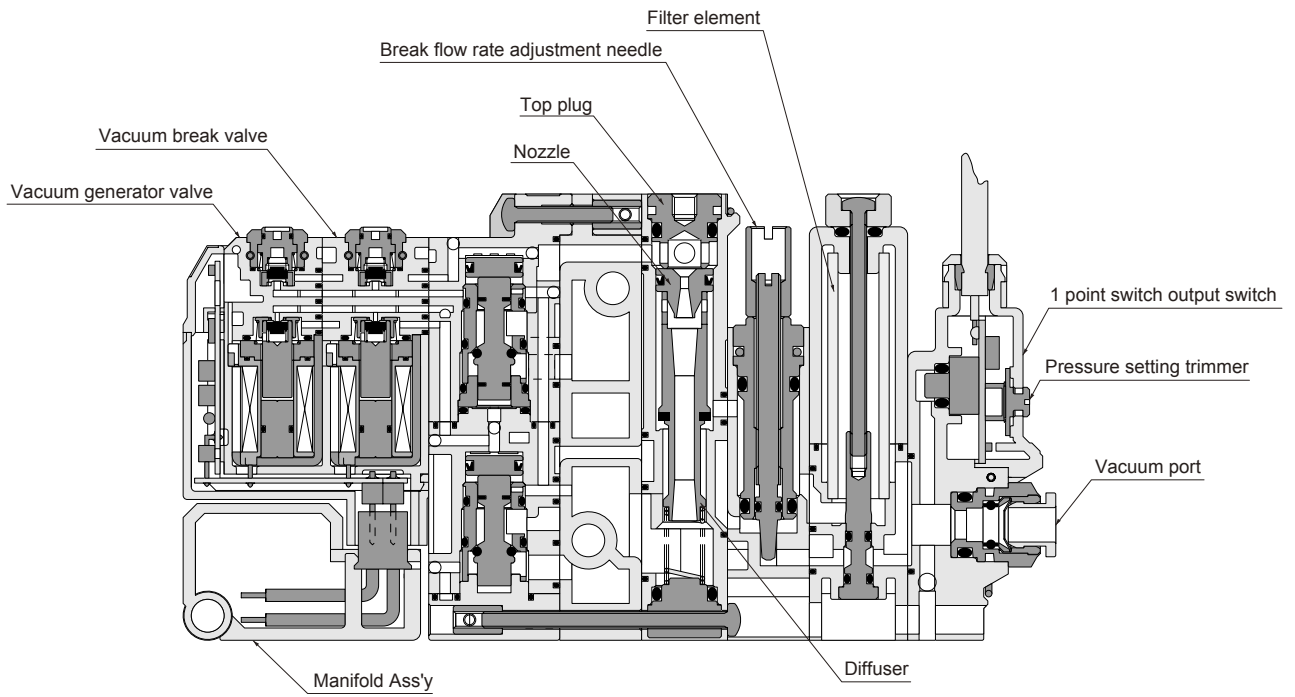
VSX
VSXM

VSQ

VSZM

Internal structure drawing

● Vacuum switch with 1 point switch output



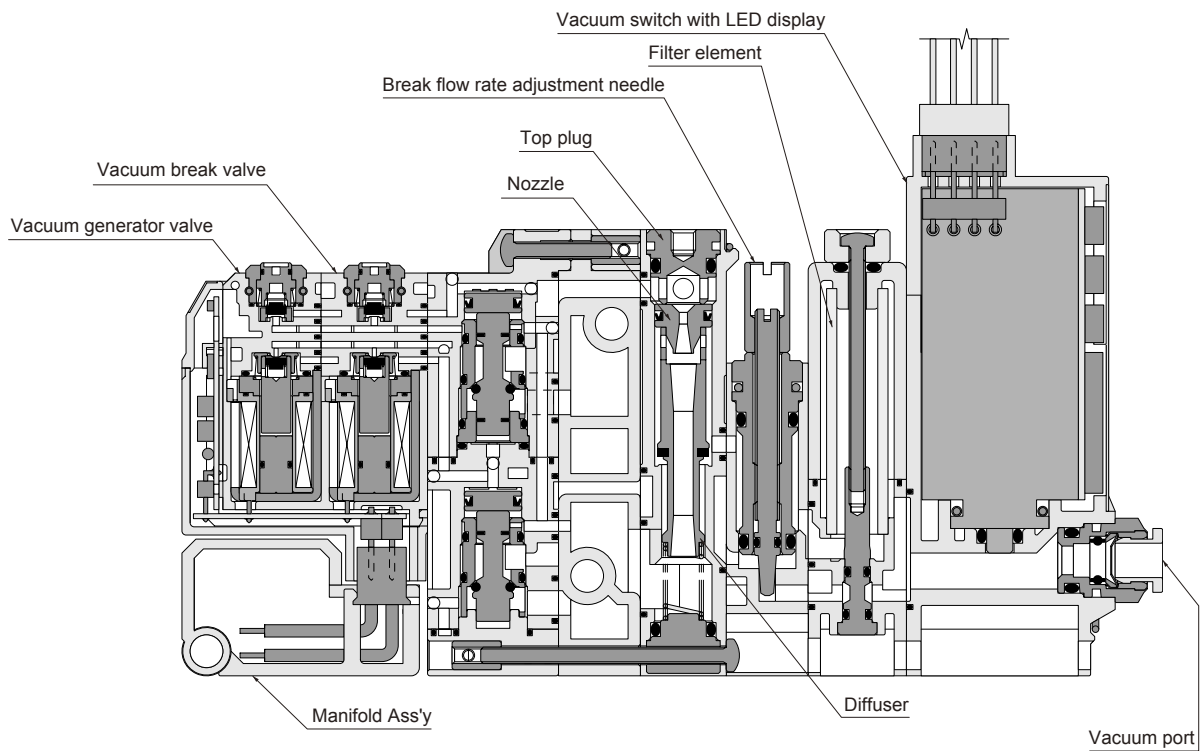
Ejector system

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● Vacuum switch with LED display



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Dimensions (D sub-connector specifications)

● Common exhaust type

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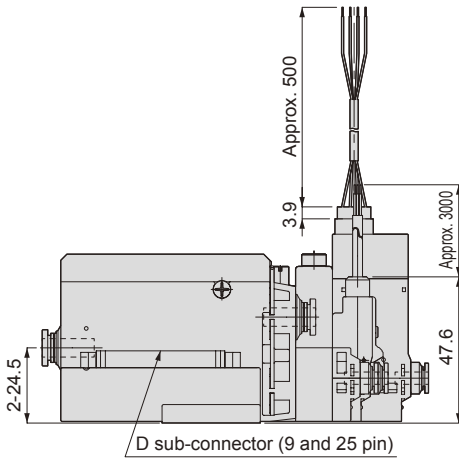
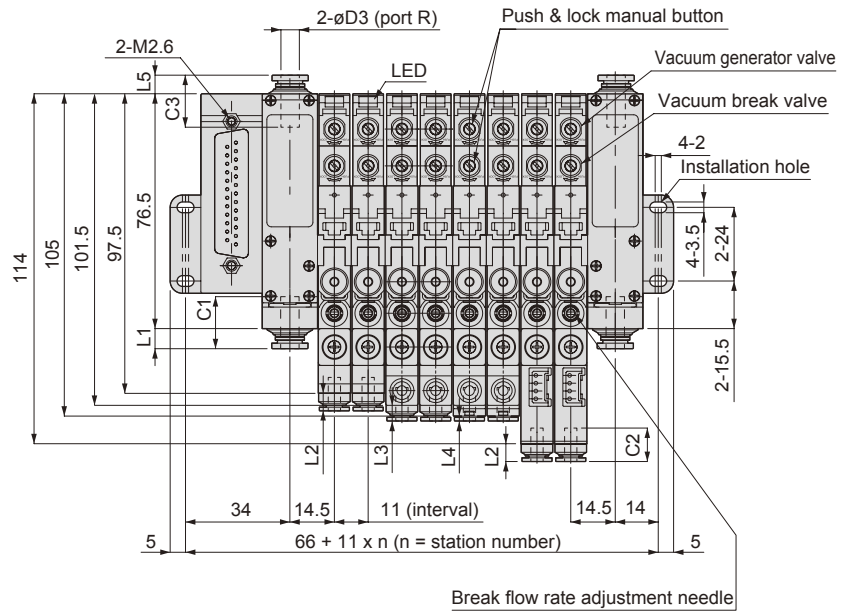
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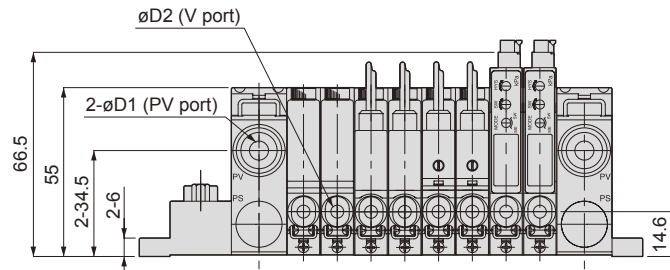
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D sub-connector (9 and 25 pin)

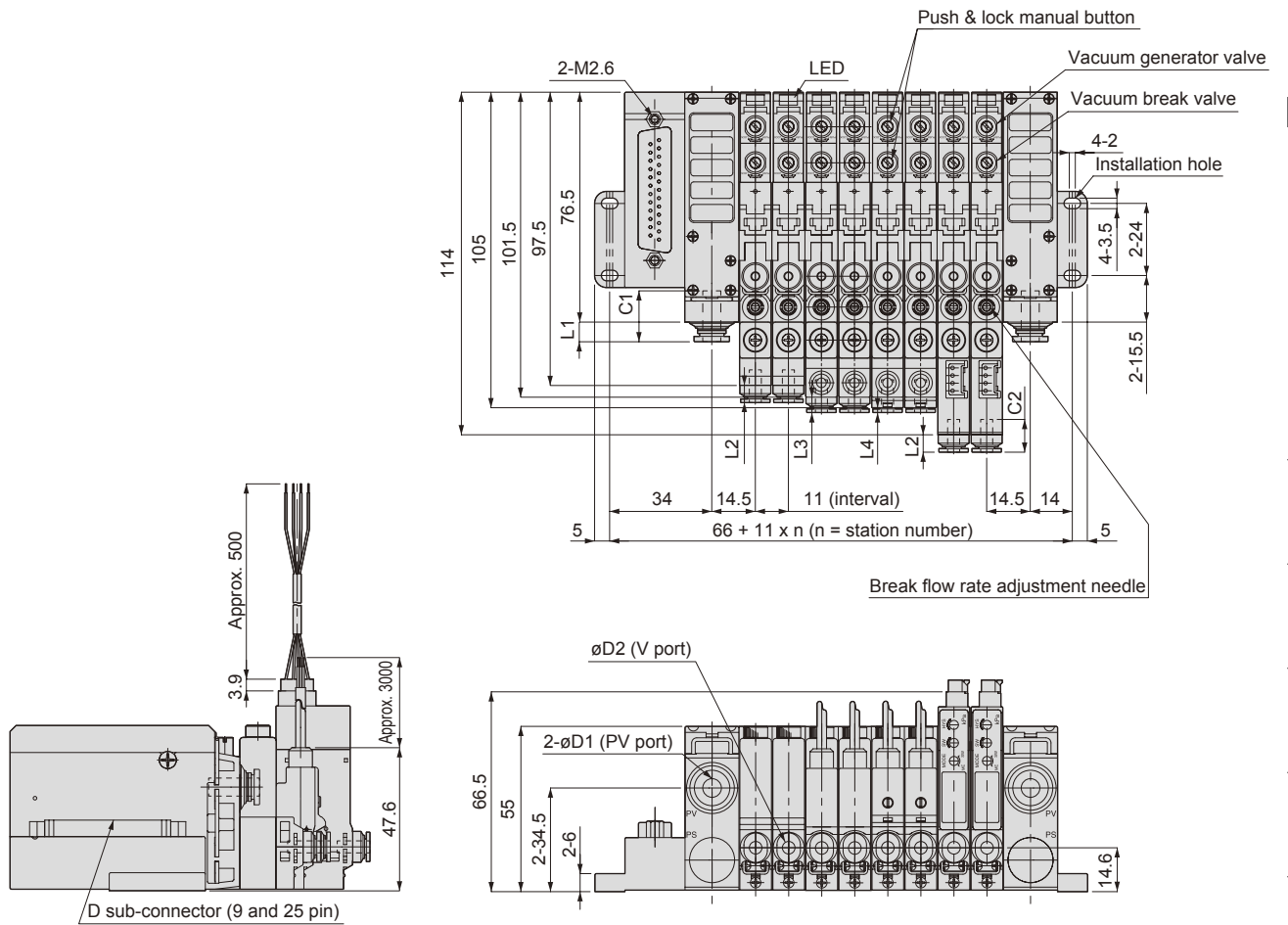


Unit: mm

PV port øD1	C1	L1	V port øD2	C2	L2	L3	L4	Port R øD3	C3	L5
6	17	6.6	4	11.2	6.1	5.4	1.9	6	17	6.1
8	18.2	8.1	6	10	8.9	8.2	4.7	8	18.2	7.6
10	20.7	11.7	M5 (female thread)	-	4	3.3	-0.2	10	20.7	11.2

Dimensions (D sub-connector specifications)

- Atmospheric release type



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Unit: mm

PV port øD1	C1	L1	V port øD2	C2	L2	L3	L4
6	17	6.6	4	11.2	6.1	5.4	1.9
8	18.2	8.1	6	10	8.9	8.2	4.7
10	20.7	11.7	M5 (female thread)	-	4	3.3	-0.2

Dimensions (flat cable connector specifications)

● Common exhaust type

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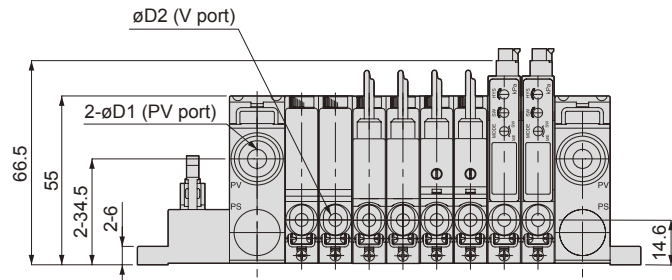
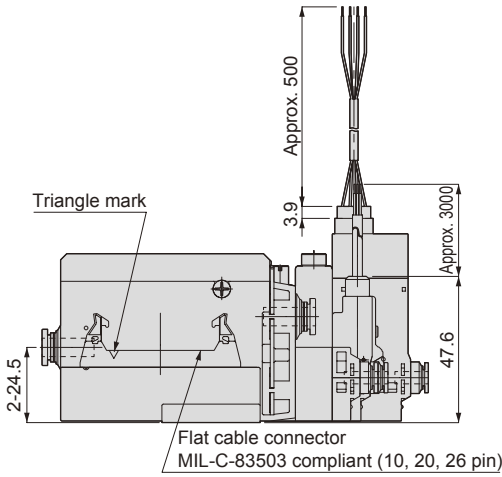
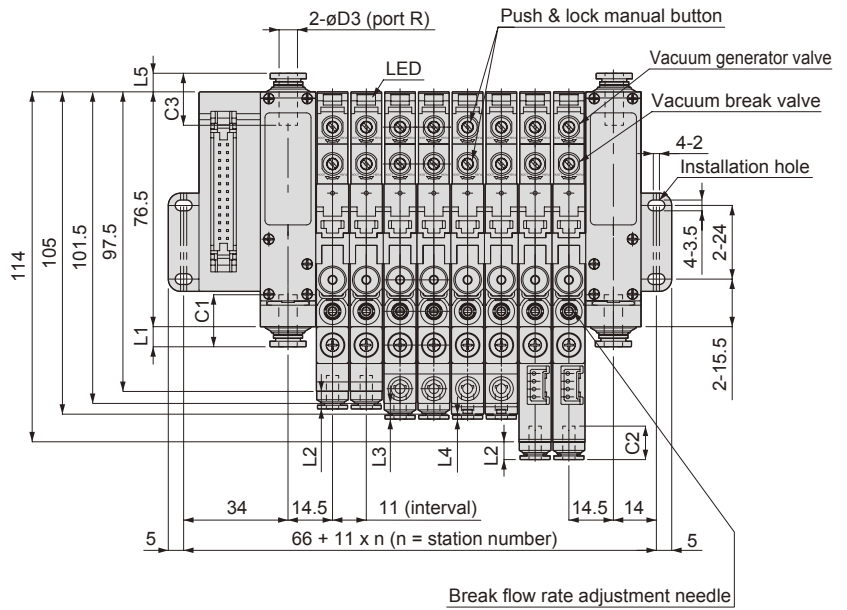
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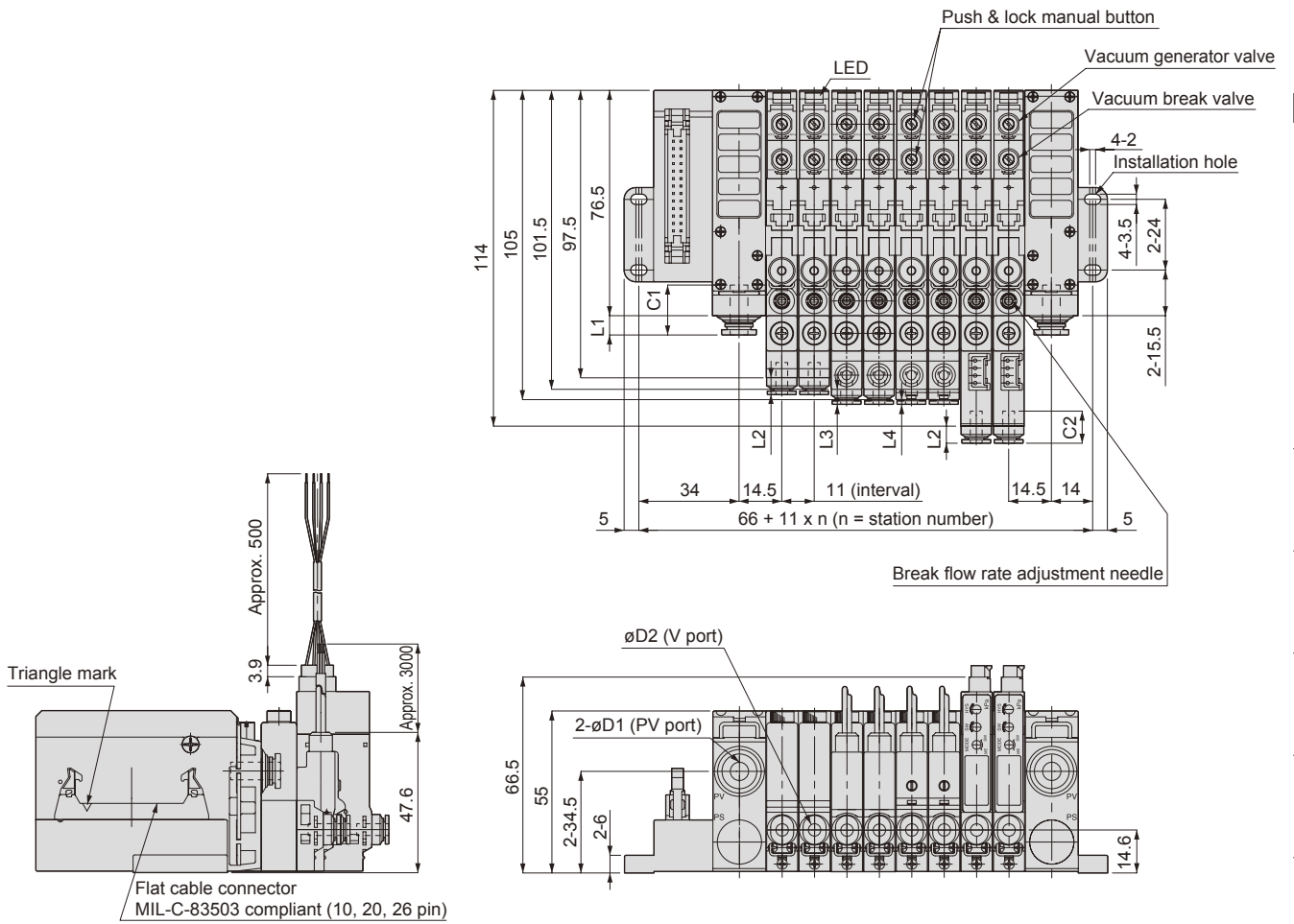


Unit: mm

PV port øD1	C1	L1	V port øD2	C2	L2	L3	L4	Port R øD3	C3	L5
6	17	6.6	4	11.2	6.1	5.4	1.9	6	17	6.1
8	18.2	8.1	6	10	8.9	8.2	4.7	8	18.2	7.6
10	20.7	11.7	M5 (female thread)	-	4	3.3	-0.2	10	20.7	11.2

Dimensions (flat cable connector specifications)

● Atmospheric release type



- Ejector system
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- VSZM**

Unit: mm

PV port øD1	C1	L1	V port øD2	C2	L2	L3	L4
6	17	6.6	4	11.2	6.1	5.4	1.9
8	18.2	8.1	6	10	8.9	8.2	4.7
10	20.7	11.7	M5 (female thread)	-	4	3.3	-0.2

Safety precautions

Refer to Intro 13 for general precautions of the pneumatic system components.

WARNING

- Check that leakage current is 1 mA or less when operating the valve. Malfunctions could result from the leakage current and cause accidents.
- When continuously energizing the pilot valve for a long time, heat generated from the coil could cause burns or adversely affect peripheral devices. Contact CKD when energizing the pilot valve for a long time.
- When using the self holding type (VSZ-D...), the switching valve (main valve) position is neutral when the pilot air supply is stopped (including when using for the first time after delivery). When restarting the pilot air supply, issue a signal to the pilot valve or accurately switch the valve manually.
- Stop the supplied air and release the residual pressure before attaching or removing the unit from the manifold.
- Do not use this product where there is excessive vibration or impact. The product could malfunction or break. (Keep vibration at an acceleration of 49m/s² or less.)

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- When using the self holding type (VSZ-D...) in a vibrating application, install so that the vibration direction is at right angles to the switching valve (main valve).

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CAUTION

- Do not apply strong tension or excessively bending to the valve or vacuum switch's leads. Wires or connectors may break.
- Compressed air contains large amounts of drainage (water, oxidized oil, tar, foreign matter, etc.) that may adversely affect performance. Dehumidify air with an after cooler or dryer and improve air quality.
- Do not use a lubricator.
- Rust, etc., in piping may result in operation faults. Install a 5 μm or smaller filter preceding the supply port. Flush pipes before use and at an appropriate cycle.
- Avoid using this vacuum ejector in environments with corrosive or flammable gas. Do not use this unit for fluids.
- Before installing and uninstalling the cartridge joint or ejector's top plug, remove all matter on the seal, and accurately insert the set pin. Read Precautions for Use in this manual before starting.

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- When using the manifold's silencer specifications, performance could drop or problems could occur if the element is clogged. Regularly service and inspect the element.
- Before installing each unit on the manifold, remove all matter on the seal, and securely fix with screws. Read Precautions for Use in this manual before starting.
- Check electrical circuit diagrams in this manual before wiring the D-sub connector and flat cable connector.
- When the manifold type is selected, vacuum performance could drop or problems could occur depending on working conditions. Read and understand Precautions of the Manifold in this manual before using.

Precautions for using the manifold

- Increasing the number of manifold stations may adversely affect performance or cause problems due to the causes below. Consult with CKD for details.

The number of stations that ensure performance (number of stations operated simultaneously) is determined based on the nozzle size, vacuum characteristics, and manifold specifications, etc. Consult with CKD for details.

1. Drop in vacuum performance due to insufficient air supply.
 - Countermeasures -
 - ① Check the air supply capacity, etc.
 - ② Keep piping as short as possible.
 - ③ Increase joint size.
2. Drops in vacuum performance because of insufficient exhaust port capacity or interference of exhaust air with other stations

Cause: Performance drops when exhaust resistance increases because of an insufficient silencer or piping capacity.

 - Countermeasures -
 - ① Common piping (exhaust) specifications → Keep piping length thick and thin.
 - ② Avoid exhaust at walls.
 - ③ Decrease the number of units operating simultaneously.

Methods not moving all units simultaneously will cause the ejector exhaust in the moving ejector to flow into the unit's vacuum port. This can cause problems with exhaust, so contact CKD.

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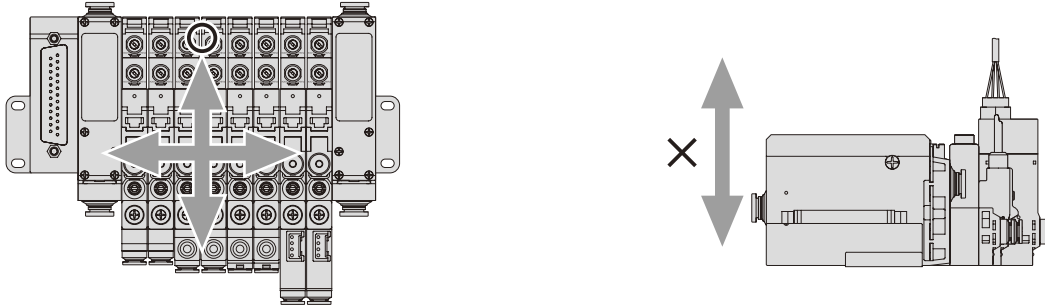
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How to use

1. Installation

If the installing position vibrates, install so that the vibrating direction is at right angles to the switching valve.



Ejector system

2. Adjusting the vacuum break air flow rate

When the vacuum break air flow rate adjusting needle is turned right (CW), the flow rate will decrease, and when turned left (CCW), the flow rate will increase. After adjusting, securely tighten the lock nut with a tightening torque of 0.1 to 0.3 N·m.

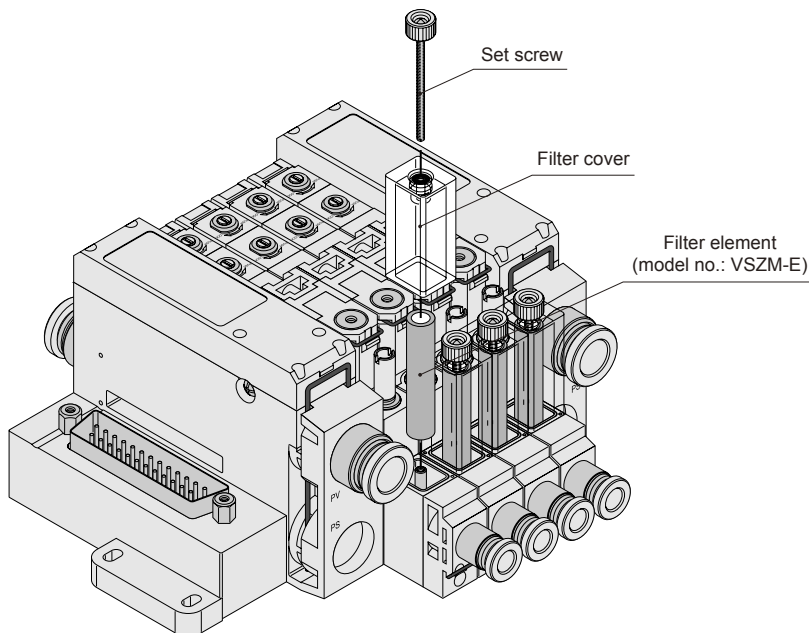
Left turn: Increases vacuum break air flow rate

Right turn: Decreases vacuum break air flow rate



3. Replacing the filter element

Remove the set screw, and replace the filter element. After replacing the element, confirm that the filter packing is attached, and securely fix with a tightening torque of 0.3 to 0.5 N·m.



VSY

VSH·VSU
VSB·VSC

VSG

VSK
VSKM

VSJ
VSJM

V SX
V SXM

V SQ

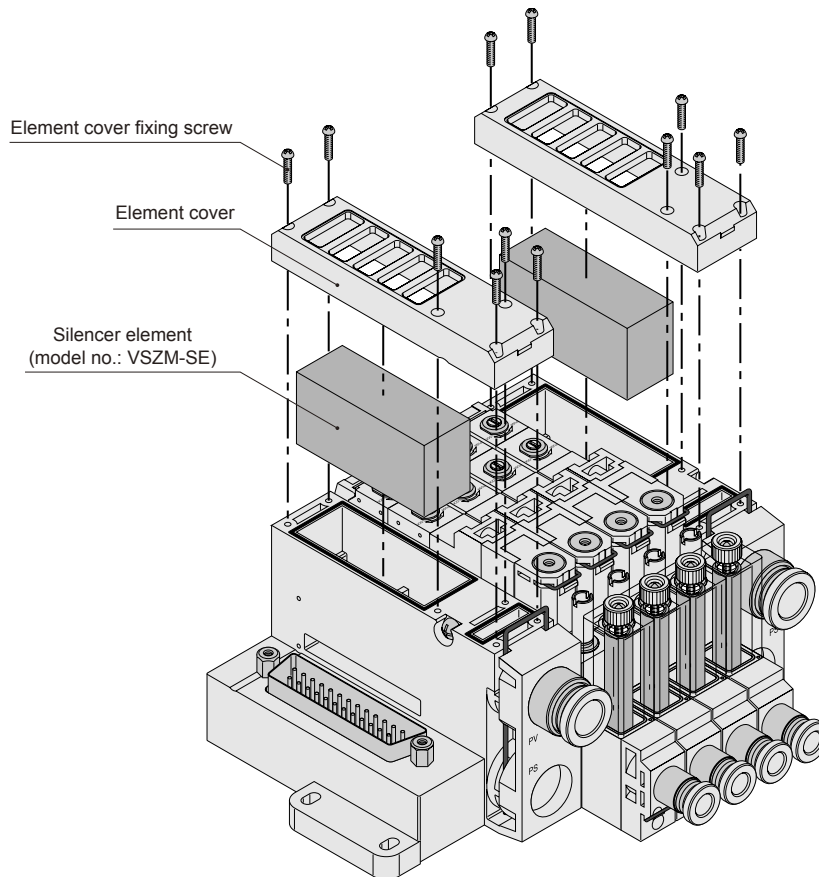
VSZM

How to use

4. Replacing the silencer element

Replace the silencer element as follows.

- ① Remove the six element cover fixing screws.
 - ② Remove the element.
 - ③ Insert the element, attach the element cover, and securely tighten with a tightening torque of 0.4 to 0.5 N·m.
- (Note) When using a resin tapping screw for the fixing screws, check the initial fit with a precision driver, and tighten completely.



Ejector system

VSY

VSH·VSU
VSB·VSC

VSG

VSK
VSKM

VSJ
VSJM

VSX
VSXM

VSQ

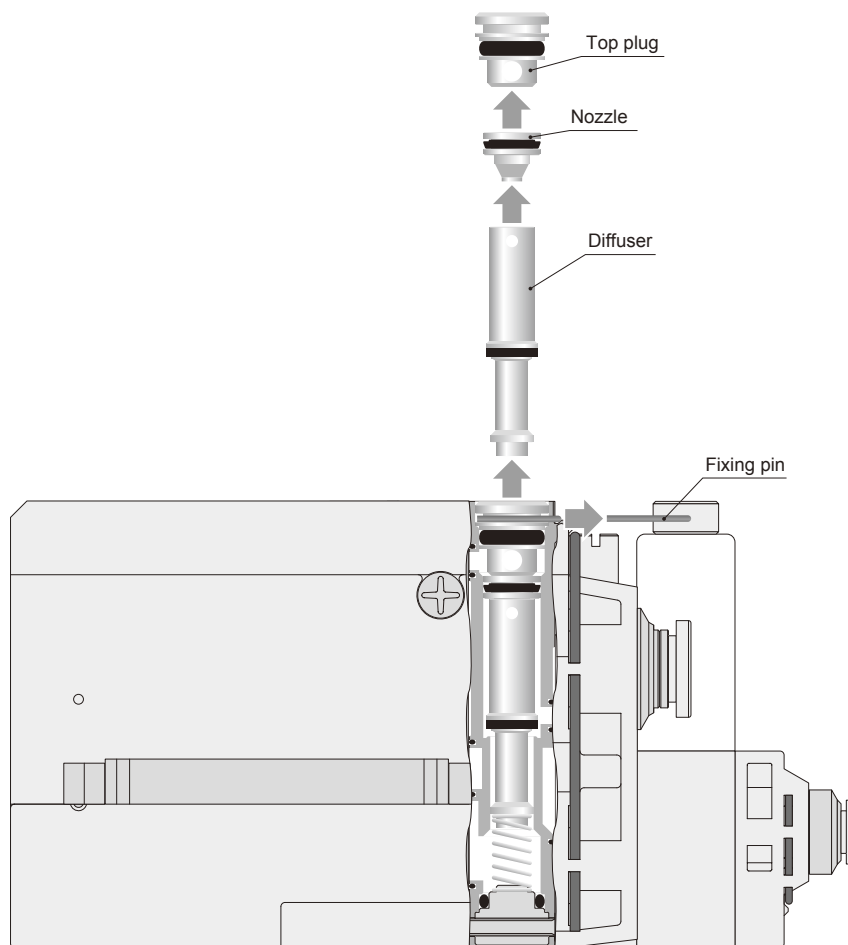
VSZM

How to use

5. Replacing and cleaning the nozzle and diffuser

Replace and clean the nozzle and diffuser as follows.

- ① Using a flat-tip screwdriver, etc., pull out the pin fixing the top plug onto the ejector.
- ② Pull out the top plug, nozzle, and diffuser.
- ③ Remove all matter on the inner side of the nozzle and diffuser and the seal with compressed air or by wiping it off.
(Note) Do not scratch the inside of the nozzle and diffuser or the seal.
- ④ If required, apply grease on the nozzle's piston packing.
(Note 1) If grease at packing has splattered, apply a thin coat around the periphery of packing. Use grease that does not permeate the rubber or resin.
(Note 2) Note that grease causes dirt and lint to stick to packing.
- ⑤ Insert the diffuser, nozzle, and top plug in this order into the main unit.
- ⑥ Insert the top plug fixing pin.



Ejector system

VSY

VSH•VSU
VSB•VSC

VSG

VSK
VSKM

VSJ
VSJM

VSX
VSXM

VSQ

VSZM

How to use

6. Removing from and installing onto the manifold

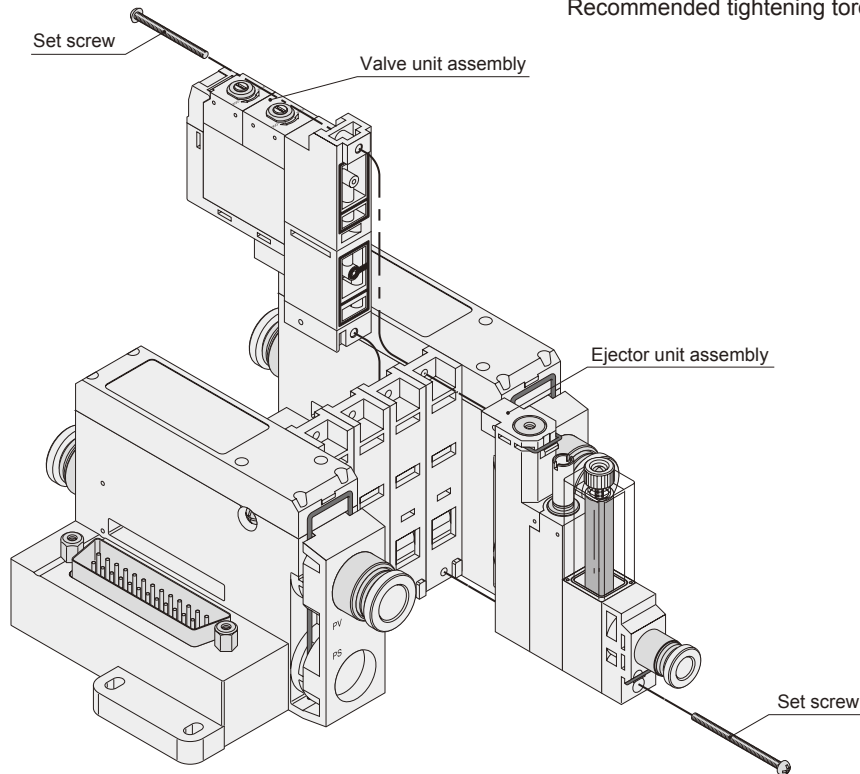
[Removal]

Remove units from the manifold as follows:

- ① Stop the supply air, and release pressure in pipes.
- ② Remove the two set screws with an appropriate tool.
- ③ Remove each unit from the manifold.

[Installation]

- ① Check that packing is attached, and that no foreign matter adheres.
 - ② Install each unit on the manifold.
 - ③ Confirm that each unit is accurately positioned and set.
 - ④ Tighten the two fixing screws with an appropriate tool.
- (Note) Gradually and alternately tighten the two screws.
Recommended tightening torque: 0.4 to 0.5N·m

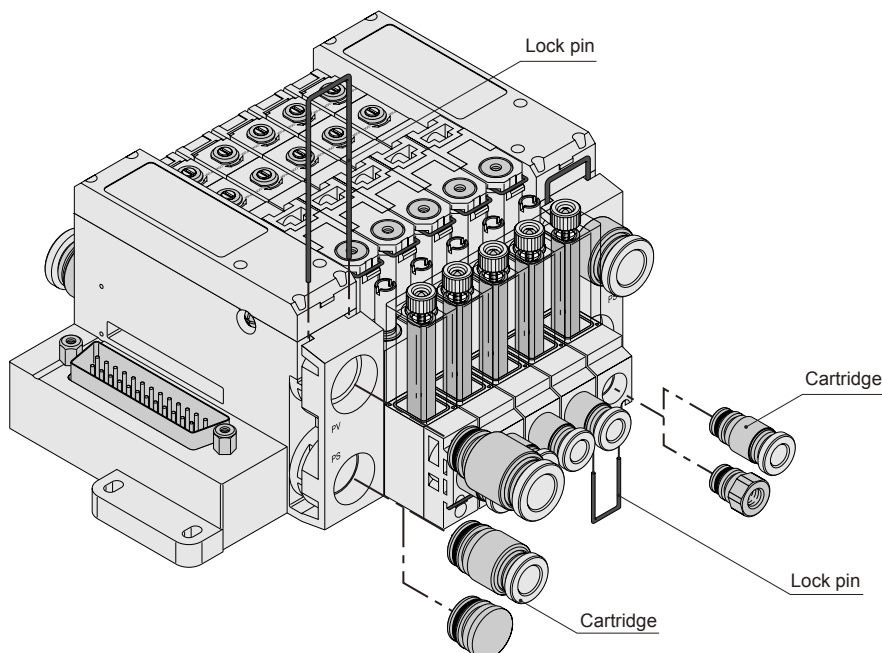


7. Replacing the cartridge joint

The cartridge joint and M5 female screw are replaced as follows.

- ① Pull out the set pin with a flat-tip screwdriver, etc.
- ② Pull the cartridge out in the connection direction.

Note: Before installing the cartridge in the unit, check that no dirt or lint, etc., is caught on the O-ring.



Ejector system

VSJ

VSH·VSU
VSB·VSC

VSG

VSK
VSKM

VSJ
VSJM

VSX
VSXM

VSQ

VSZM

Preparing the VSZM mixed manifold specifications

● Mixed manifold model No. (Example)

VSZM - ^AZ - ^B00 - ^CZ - ^DCX - ^E8 - ^F6 - ^G3 - ^H5 - ^IZ - ^JF - ^K26

● Mixed manifold specifications (Example)

Ejector system	Vacuum ejector model no.					Layout position												Quantity
	A	B	C	D	I	1	2	3	4	5	6	7	8	9	10	11	12	
VSZM-	H	05	B	4	DW	○	○											2
VSZM-	H	07	B	6	DA			○	○									2
VSZM-	H	07	D	6						○								1
VSZM-																		
VSZM-																		

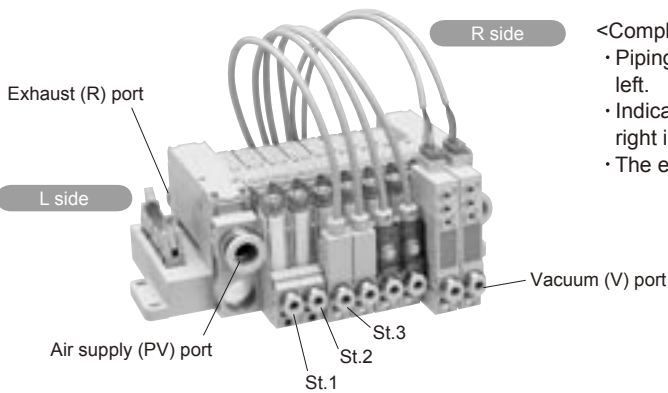
(Specifications when only output port size joints are mixed)

● Mixed manifold model No. (Example)

VSZM - ^AH - ^B07 - ^CB - ^DCX - ^E8 - ^F5 - ^G3 - ^H5 - ^IDW - ^JF - ^K26

● Mixed manifold specifications (Example)

VSG	Vacuum ejector model no.					Layout position												Quantity
	A	B	C	D	I	1	2	3	4	5	6	7	8	9	10	11	12	
VSZM-	H	07	B	6	DW	○			○									2
VSZM-	H	07	B	4	DW		○			○								2
VSZM-	H	07	B	M5	DW			○										1
VSZM-																		
VSZM-																		



<Completing the form>

- Piping locations start from the vacuum port, and are set in order from the left.
- Indicate the total number of designated product models required at the far right in the table.
- The electronic connector assembly is fixed on the L side of the manifold.

VSZM mix manifold specifications

Contact _____ Quantity _____ Sets _____ Delivery / / _____ Issue / / _____
 Slip No. _____ Order No. _____ Customer name _____
 Person in charge _____
 Order No. _____

● Mixed manifold model No.

VSZM - - - - -

A Vacuum characteristics Note 1, 2	
H	High vacuum/medium flow type
L	Medium vacuum/large flow rate type
E	High vacuum/small flow rate type
Z	For mixed specifications (Indicate details in specification sheet.)

B Nozzle diameter Note 1, 2	
05	ø0.5
07	ø0.7
10	ø1.0
00	For mixed specifications (Indicate details in specification sheet.)

C Valve type	
B	Normally closed type
D	Self hold type
Z	For mixed specifications (Indicate details in specification sheet.)

D Vacuum port (V)	
4	ø4 push-in joint
6	ø6 push-in joint
M5	M5 x 0.8
CX	For mixed joint (Indicate details in specification sheet.)

E Air supply port (PS)	
6	ø6 push-in joint
8	ø8 push-in joint
10	ø10 push-in joint

F Exhaust port (EX)	
S	Atmospheric release with silencer
6	ø6 push-in joint common exhaust
8	ø8 push-in joint common exhaust
10	ø10 push-in joint common exhaust

G Solenoid valve voltage	
3	24 VDC

H Number of manifold stations	
2 to 12	2 stations to 12 stations

I Vacuum switch specifications	
Blank	Without vacuum switch
DW	2-point output with LED display
DA	1-point output + analog output with LED display
S	1-point NPN output without display
V1	Analog output for negative pressure
R1	Analog output for compound pressure
Z	For mixed specifications (Indicate details in specification sheet.)

J Wiring specifications	
F	Flat cable connector
D	D sub-connector

K Number of connector pin designation	
Blank	For flat cable connector specifications
	2 to 4 stations 10 pin
	5 to 9 stations 20 pin
Blank	For D sub-connector specifications
	2 to 4 stations 9 pin
	5 to 12 stations 25 pin
20	20 pin flat cable connector (max.9 stations)
26	26 pin flat cable connector (max.12 stations)
25	25 pin D sub-connector (max.12 stations)

⚠ Note on model no. selection

Note 1: A E, B 05 and A L and B 10 combinations can not be selected.
 Note 3: When A Z, only B 00 can be selected.
 For B 00. Only A Z can be selected.

● Mixed manifold specification sheet

Vacuum ejector model no. A B C D I	Layout position												Quantity
	1	2	3	4	5	6	7	8	9	10	11	12	
VSZM- <input type="text"/>													
VSZM- <input type="text"/>													
VSZM- <input type="text"/>													
VSZM- <input type="text"/>													
VSZM- <input type="text"/>													

Ejector system
 VSY
 VSH•VSU
 VSB•VSC
 VSG
 VSK
 VSKM
 VSJ
 VSJM
 VSX
 VSXM
 VSQ
 VSZM