Vacuum Generator Complex type VX

Small and light weight 10.5 mm width complex type vacuum generator for high-cyclization(Stand-alone and Manifold types)

⚠ 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)

VX (1) H (2) 05 (3) D (4) – 4 (5) 4 (6) S (7) – D24 (8) –A0 (9) – D (10) (11)

(1) Vacuum Generator Complex type VX

(2) Vacuum characteristics

Code	H	L	E
Charact.	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air supply pressure type (Rated supply pressure: 0.35 MPa)

(3) Nozzle bore

Code	Nozzle bore (mm)	H Type			L Type			E Type		
		Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])
05	0.5	-90.4	7〔7〕〈7〉	11.5	-66.5	12〔12〕〈12〉	11.5	-90.4	3〔3〕〈3〉	8.8
07	0.7	-93.1	12〔13〕〈13〉	23	-66.5	19〔23〕〈24〉 19〔22〕〈22〉	23	-90.4	10.5〔10.5〕〈10.5〉	17
10	1.0	-93.1	19〔24〕〈24〉 20〔20〕〈20〉	46	-66.5	20〔26〕〈26〉	46	-90.4	17〔20〕〈20〉 17〔19〕〈19〉	34

*1. Values are when rated pressure is applied. (H and L type: 0.5 MPa, E type: 0.35 MPa.)
*2. Suction flow values on the left represent those of vacuum port dia. 3mm, those in [ ] are of vacuum port dia. of 4mm, and those in <> are of vacuum port dia. of 6mm.
Suction flow values in upper column: Silencer vent type, in lower column: Tube exhaust type
*3. The values in the table are representative values. Suction flow can vary by vacuum port dia. or tube length.

(4) Valve type

Code	No code	D
Valve type	Normally closed type (N.C.)	Double-piloted (Self-holding function)

(5) Vacuum port size (V)

Code	3	4	6
Tube O.D. (mm)	ø3	ø4	ø6

(6) Air supply port size (PS)

Code	4	6
Tube O.D. (mm)	ø4	ø6

(7) Exhaust port (EX)

	Open to air (Silencer vent)	Tube exhaust
Code	S	J
Tube O.D. (mm)	–	ø6

*Tube exhaust (J) is not selectable for nozzle bore 1.0mm of L (Large-flow type).

(8) Solenoid valve voltage

Code	D24	A100
Voltage	24VDC	100VAC

*100 VAC type is not CE marked.

(9) Pressure sensor

Code	Type
No code	Without pressure sensor
–DW	2 switch outputs with LED display
–DA	1 switch output & 1 analog output with LED display
–A0	Analog output pressure sensor (No LED)

(10) Installation

Code	No code	D
Installation	Direct Instl.	DIN rail type

(11) -S3 spec. (Metal option)

Code	No code	–S3(*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

*-S3 specification is available only for tube exhaust type with vacuum port sizes except for ø3 mm. It is not available for electronic components and electric wires.

Model Designation of Manifold type (Example)

VX (1) H (2) 05 (3) D (4) – 4 (5) 1 (6) 1 (7) – D24 (8) –A0 (9) – M 08 (10) (11)

(1) Vacuum Generator Complex type VX

(2) Vacuum characteristics

Code	H	L	E	K
Charact.	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air supply pressure type (Rated supply pressure: 0.35 MPa)	Mixed configurations on a manifold (Fill out Specification Order Form)

*Please secure supply pressure of 0.5 MPa when H or L type and E type are mounted on a manifold together. Vacuum performance indicated in the spec. can not be obtained by applying 0.35MPa to H or L type unit.

(3) Nozzle bore

Code	Nozzle bore (mm)	H type			L type			E type		
		Vacuum level (kPa)	Suction flow (ℓ/min[ANR])	Air consumption (ℓ/min[ANR])	Vacuum level (kPa)	Suction flow (ℓ/min[ANR])	Air consumption (ℓ/min[ANR])	Vacuum level (kPa)	Suction flow (ℓ/min[ANR])	Air consumption (ℓ/min[ANR])
05	0.5	-90.4	7〔7〕〈7〉	11.5	-66.5	12〔12〕〈12〉	11.5	-90.4	3〔3〕〈3〉	8.8
07	0.7	-93.1	12〔13〕〈13〉	23	-66.5	19〔23〕〈24〉 19〔22〕〈22〉	23	-90.4	10.5〔10.5〕〈10.5〉	17
10	1.0	-93.1	19〔24〕〈24〉 20〔20〕〈20〉	46	-66.5	20〔26〕〈26〉	46	-90.4	17〔20〕〈20〉 17〔19〕〈19〉	34
00	Mixed configurations on a manifold on a manifold (Fill out Specification Order Form.)									

*1 Values are when rated pressure is applied. (H and L type: 0.5 MPa, E type: 0.35 MPa.)
*2 Suction flow values on the left represent those of vacuum port dia. 3mm, those in [ ] are of vacuum port dia. of 4mm, and those in <> are of vacuum port dia. of 6mm.Suction flow values in upper column: Silencer vent type, in lower column: Tube exhaust type
*3 The values in the table are representative values. Suction flow can vary by vacuum port dia. or tube length.

(4) Valve type

Code	No code	D	K
Valve type	Normally closed type (N.C.)	Double-piloted (Self-holding function)	Mixed configurations on a manifold on a manifold (Fill out Specification Order Form.)

(5) Vacuum port size (V)

Code	3	4	6	0
Tube O.D. (mm)	ø3	ø4	ø6	Mixed configurations on a manifold on a manifold (Fill out Specification Order Form.)

(6) Air supply port size (PS)

Code	4	6	8	1
Tube O.D. (mm)	ø4	ø6	ø8	ø10

(7) Exhaust port (EX)

	Open to air (Silencer vent)	Tube exhaust		
Code	S	6	8	1
Tube O.D. (mm)	–	ø6	ø8	ø10

*Tube exhaust (J) is not selectable for nozzle bore 1.0mm of L (Large-flow type).

(8) Solenoid valve voltage

Code	D24	A100
Voltage	24 VDC	100 VAC

*100 VAC type is not CE marked.

(9) Pressure sensor

Code	Type
No code	Without pressure sensor
–DW	2 switch outputs with LED display
–DA	1 switch output & 1 analog output with LED display
–A0	Analog output pressure sensor (No LED)
–K	Different sensor configurations on a manifold (Fill out Specification Order Form)

(10) No. of stations

Code	02	03	04	05	06	07	08	09	10
No. of St.	2	3	4	5	6	7	8	9	10

*1. When simultaneous operation of all mounting units is required, contact us in advance.
*2. When 10 and more stations on a manifold are required, contact PISCO.
*3. Exhaust air of operating unit flows into the vacuum port of non-operating unit and comes out. If such exhaust air causes a problem, please contact PISCO.

(11) -S3 spec. (Metal option)

Code	No code	–S3(*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

*-S3 specification is available only for tube exhaust type with vacuum port sizes except for ø3 mm. It is not available for electronic components and electric wires.

Model Designation of Manifold-base alone (Example)

VXM (1) – 8 (2) S (3) – 04 (4) (5)

(1) Manifold-base for Vacuum Generator VX

(2) Air supply port size (PS)

Code	4	6	8	1
Tube O.D. (mm)	ø4	ø6	ø8	ø10

(3) Exhaust port (EX)

Code	6	8	1	S
Tube O.D. (mm)	ø6	ø8	ø10	Open to air (Silencer vent)

(4) No. of stations

Code	02	03	04	05	06	07	08	09	10
No. of St.	2	3	4	5	6	7	8	9	10

(5) -S3 spec. (Metal option)

Code	No code	-S3(*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

*-S3 specification is only for tube exhaust type.

Model Designation of Manifold Installation Top-Mounting Unit alone (Example)

VX (1) H (2) 05 (3) D (4) – 4 (5) – D24 (6) -DA (7) – M (8)

(1) Vacuum Generator Complex type VX

(2) Vacuum characteristics

Code	H	L	E
Charact.	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air supply pressure type (Rated supply pressure: 0.35 MPa)

(3) Nozzle bore

Code	Nozzle bore (mm)	H type			L type			E type		
		Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])
05	0.5	-90.4	7〔7〕〈7〉	11.5	-66.5	12〔12〕〈12〉	11.5	-90.4	3〔3〕〈3〉	8.8
07	0.7	-93.1	12〔13〕〈13〉	23	-66.5	19〔23〕〈24〉 19〔22〕〈22〉	23	-90.4	10.5〔10.5〕〈10.5〉	17
10	1.0	-93.1	19〔24〕〈24〉 20〔20〕〈20〉	46	-66.5	20〔26〕〈26〉	46	-90.4	17〔20〕〈20〉 17〔19〕〈19〉	34

*1 Values are when rated pressure is applied. (H and L type: 0.5 MPa, E type: 0.35 MPa.)
*2 Suction flow values on the left represent those of vacuum port dia. 3mm, those in [ ] are of vacuum port dia. of 4mm, and those in <> are of vacuum port dia. of 6mm.
Suction flow values in upper column: Silencer vent type, in lower column: Tube exhaust type
*3 The values in the table are representative values. Suction flow can vary by vacuum port dia. or tube length.

(4) Valve type

Code	No code	D
Valve type	Normally closed type (N.C.)	Double-piloted (Self-holding function)

(5) Vacuum port size (V)

Code	3	4	6
Tube O.D. (mm)	ø3	ø4	ø6

(6) Solenoid valve voltage

Code	D24	A100
Voltage	24VDC	100VAC

*100 VAC type is not CE marked.

(7) Pressure sensor

Code	Type
No code	Without pressure sensor
-DW	2 switch outputs with LED display
-DA	1 switch output & 1 analog output with LED display
-AO	Analog output pressure sensor (No LED)

(8) -S3 spec. (Metal option)

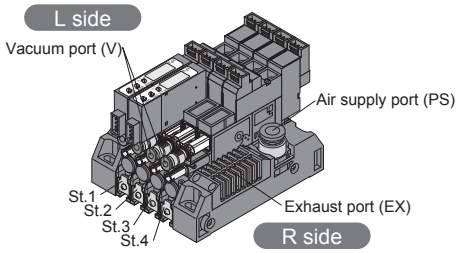
Code	No code	-S3(*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

*-S3 specification is available only for tube exhaust type with vacuum port sizes except for ø3 mm. It is not available for electronic components and electric wires.

Specification order form example for Manifold type

			Type (1)	Vacuum characteristics (2)	Nozzle bore (3)	Valve type (4)		Vacuum port (5)	Air supply port (6)	Exhaust port (EX) (7)		Solenoid valve voltage (8)		Pressure sensor (9)		No. of stations (10)	-S3 Metal option (11)
Manifold model code			VX	K	00	K	–	0	8	S	–	D24	–	K	–	04	
Mounting unit model code	L side	St.1	E	07	D	–	6			–		–	DW			
	⬆ Station No.	St.2	E	07	D	–	6			–		–	DW			
		St.3	H	05		–	4			–		–				
		St.4	H	05		–	4			–		–				
		St.5				–				–		–				
		St.6				–				–		–				
		St.7				–				–		–				
		St.8				–				–		–				
		St.9				–				–		–				
	R side	St.10				–				–		–				

Manifold Type (reference)



*Station No. is counted as St.1, St.2, ···St.10 from L (left) side when the vacuum port is facing the front as shown in the figure.

Cut here

Vacuum Generator VX Series Manifold type Specification Order Form

Name

To: NIHON PISCO CO., Ltd.

Distributor address TEL

Delivery address TEL

Customer name and address TEL

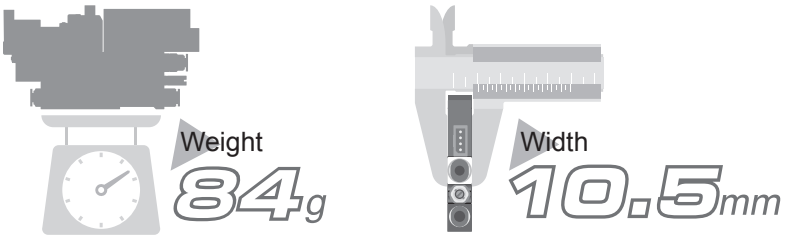
Requested EX-W PISCO Date: Order quantity: pcs.

			Type (1)	Vacuum characteristics (2)	Nozzle bore (3)	Valve type (4)		Vacuum port (5)	Air supply port (6)	Exhaust port (EX) (7)		Solenoid valve voltage (8)		Pressure sensor (9)		No. of stations (10)	-S3 Metal option (11)
Manifold model code			VX				–				–		–		–		
Mounting unit model code	L side	St.1					–				–		–				
	⬆ Station No.	St.2					–				–		–				
		St.3					–				–		–				
		St.4					–				–		–				
		St.5					–				–		–				
		St.6					–				–		–				
		St.7					–				–		–				
		St.8					–				–		–				
		St.9					–				–		–				
	R side	St.10					–				–		–				

*1. Refer to the above example to fill in the form.
*2. Make photocopies of this page and fill in.
*3. When the combination of mounting unit spec. is different, a new Specification Order Form is required.
*4. -S3 spec. is not available when selecting vacuum port dia. 3mm and/or silencer vent.

Characteristics

A light weight and compact body meeting market needs.



Pursuing responsiveness of suction solenoid valve to the fastest limit and achieving higher cycle rates of vacuum system.

Two types of valves are available: Normally closed type and Double-piloted type (self-holding function) that is suitable for saving energy.

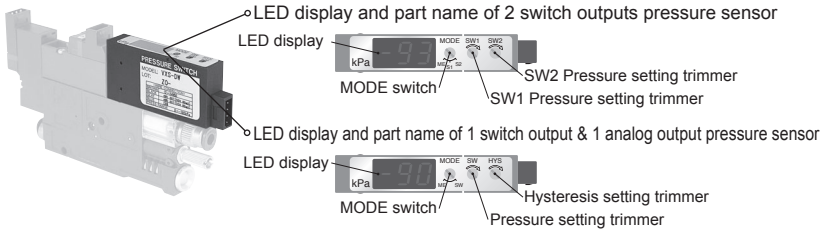
2 installation methods to better suit the applications.

Direct-installation type is to fix the product from side using threads. DIN rail type is to install the product on DIN rail.

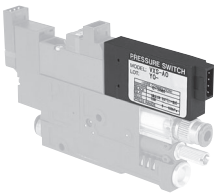
2 types of pressure sensors.

Pressure sensor with legible LED display (2 switch outputs type and 1 switch output + 1 analog output) and cost-optimized analog type.

Pressure sensor with LED display (2 types)



Analog pressure sensor



Standard nozzle bore: dia. 0.5 mm, 0.7 mm and 10 mm.

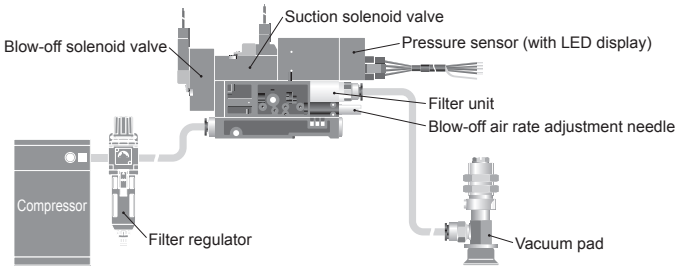
Manifold type allows up to 10 units to be mounted.

● -S3 spec. (Metal option)

No copper-based metallic materials used in flow paths.

Seal rubber material is HNBR or FKM, both of which have good ozone resistance.

Piping Example



Specifications

Fluid medium		Air (JIS B 8392-1 : Compliant with [Class 1.2.1 to 2.4.3])
Operating press. range		0.3 to 0.7 MPa
Operating temp. range		5 to 50°C (No freezing)
Operating humid. range		35 to 85%RH (No dew condensation)
Vibration resist. /Shock resist.		50m/s² max / 150m/s² max
Protective structure		IEC standard IP40 equiv.
Lubrication		Not required
Proof pressure	Air supply. circuit	1.05 MPa
	Vac. circuit	0.2 MPa

*Proof pressure is the level of pressure at which the product would not be damaged. It does not mean the pressure where the product works normally.

Solenoid valve specifications

Rated voltage	24 VDC ±10%	100 VAC ±10%
Power consumption	1.2 W (with LED)	1.5 VA (with LED)
Surge protection	Varistor	Bridge diode
Operation indicator	Current application : Red LED ON	
Manual override	Push button (non-lock)	

Suction main valve specifications

Operation type		Indirect operation by pilot valve	
Valve type		Normally closed type	Double-piloted (Self-holding function)(*1)
Response time (Standard)	OFF→ON	24 VDC: 7 msec	24 VDC: 5.5 msec
		100 VAC: 10 msec	100 VAC: 8.5 msec
	ON→OFF	24 VDC: 14.5 msec	24 VDC: 10.5 msec
		100 VAC: 16 msec	100 VAC: 13.5 msec
Response time (-S3 spec.)	OFF→ON	24 VDC: 8 msec	24 VDC: 6.5 msec
		100 VAC: 11 msec	100 VAC: 9.5 msec
	ON→OFF	24 VDC: 23.5 msec	24 VDC: 18.5 msec
		100 VAC: 29.5 msec	100 VAC: 15 msec

*1. Excitation time of the solenoid must be 50 msec or more.
*2. The response time at supply air: 0.5 MPa with rated voltage (100%).

Blow-off main valve specifications

Operation type		Direct operating poppet
Valve type		Normally closed
Response time	OFF→ON	24 VDC: 3.5 msec
		100 VAC: 8 msec
	ON→OFF	24 VDC: 3 msec
		100 VAC: 14 msec

*The response time at supply air: 0.5 MPa with rated voltage (100%).

Vacuum filter specifications

Element material	PVFM (Polyvinyl formal)
Filtering accuracy (*)	5 µm
Filter area	502 mm²

*Based on PISCO measuring condition.

Blow-off function

Blow-off air rate	Normally closed	0 to 7.5 ℓ/min[ANR] (Supply pressure: 0.5 MPa)
	Double-piloted (Self-holding function)	0.2 to 2 ℓ/min[ANR] (Supply pressure: 0.5 MPa)

*1. The value of blow-off air rate of normally closed type is for vacuum characteristics E10, stand-alone type. Blow-off air rate varies according to vacuum characteristic. Also, the blow-off air rate of manifold-type is about 70% of the stand-alone type.
*2. When the air rate is out of the above range, the response of the double-piloted type does not satisfy the specification.
*3. Blow-off air rate varies according to the vacuum port dia. and tube length (piping resistance and others) on vacuum side.

Specifications of Pressure sensor with LED display

Specifications		–DW (2 switch outputs with LED display)	–DA (1 switch output & 1 analog output with LED display)
Current consumption		40 mA	
Pressure detection		Diffused metaloxide semiconductive pressure switch	
Operating press. range		-100 to 0 kPa	
Pressure setting range		-99 to 0 kPa	
Proof pressure		0.2 MPa	
Power requirements		12 to 24 VDC ±10% Ripple (P-P) 10% max.	
No. of pressure setting		2	1
Operating accuracy		±3%F.S. max. (Standard temp. at 25°C)	
Hysteresis		Fixed (2% F.S. max.)	Variable (about 0 to15% F.S. max.)
Switch output		NPN open collector output: 30 V 80 mA max. Residual voltage 0.8 V max.	
Analog output	Output voltage		1 to 5 V
	Zero-point voltage		1 ±0.1 V
	Span voltage		4 ±0.1 V
	Output current		1mA max. (load resistance min.5kΩ)
	LIN / HYS		±0.5% F.S. max. (Standard temp. at 25°C)
Response		About 2 msec or less	
Indication		0 to -99 kPa (2-digit red LED display)	
Display frequency		About 4 times/sec	
Indication accuracy		±3%F.S. ±2 digit max.	
Sensor resolution		1 digit	
Operation indicator		SW1: Red LED turns on when pressure is above setting SW2: Green LED turns on when pressure is above setting	Red LED turns on when pressure is above setting

*Allowable range of the variation of “Zero point voltage”, "Span voltage" and “Pressure setting value” caused by repeated voltage application is ± 3% F.S.

Pressure sensor (without display) specifications

Specifications		–A0 (1 analog output)
Power requirements		12 to 24 VDC ±10% Ripple (P-P) 10% max.
Current consumption		15 mA
Pressure detection		Diffused metaloxide semiconductive pressure sensor
Proof pressure		0.2 MPa
Analog output	Output voltage	1 to 5 V
	Zero-point voltage	1 ±0.1 V
	Span voltage	4 ±0.1 V
	Output current	1 mA max.
	Temp. charact. (Zero point)	±0.1 %F.S./ºC (Standard temp. at 25°C)
	Temp. charact. (Span)	±0.1 %F.S./ºC (Standard temp. at 25°C)
	Linearity	±0.5%F.S. max.

*Allowable range of the variation of “Zero point voltage”, "Span voltage" and “Pressure setting value” caused by repeated voltage application is ± 3% F.S.

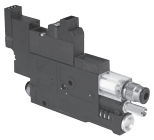
RoHS2 (2011/65/EU+EU2015/863) compliant CE (*2)

Open to air (Silencer vent)

Direct install. type

Type	Model code
Without pressure sensor	VX□□□-□□S-□

VX



Type	Model code
Pressure sensor with LED display (2 switch outputs)	VX□□□-□□S-□-DW

VX

Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VX□□□-□□S-□-DA

VX

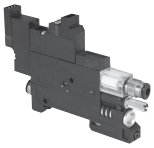
Type	Model code
Analog output pressure sensor	VX□□□-□□S-□-A0

VX

DIN rail type

Type	Model code
Without pressure sensor	VX□□□-□□S-□-D

VX

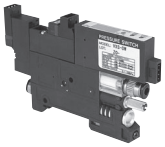


Type	Model code
Pressure sensor with LED display (2 switch outputs)	VX□□□-□□S-□-DW-D

VX

Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VX□□□-□□S-□-DA-D

VX

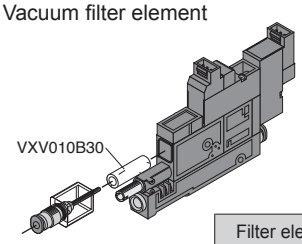


Type	Model code
Analog output pressure sensor	VX□□□-□□S-□-A0-D

VX

Replacement element

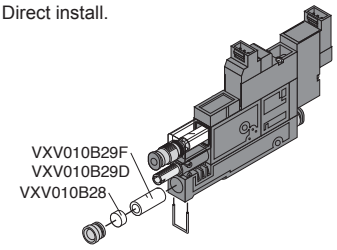
Vacuum filter element



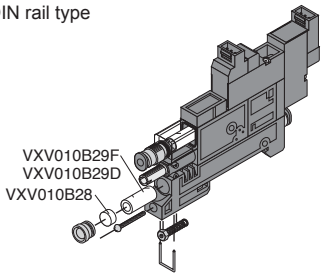
Filter element Model code
VXV010B30

Silencer element

Direct install.



DIN rail type



Silencer element Model code	Vacuum characteristics
VXV010B28	–
VXV010B29F	For H10, L10, E10, H07, L07
VXV010B29D	For E07, H05, L05

Notes

*1. Please select each code referring to the example of model designation. 2: Code of vacuum characteristics, 3: Nozzle dia. Code, 4: Valve type, 5: Vacuum port size code, 6: Supply port size, 8: Solenoid valve type code.

*2. 100 VAC type is not CE marked.

CAD data is available at PISCO website.

Packaging specifications

1 pc. /bag

10 pcs. /bag: Replacement element

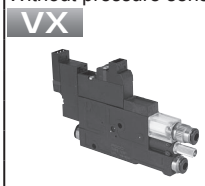
Vacuum Generator Complex type VX

RoHS2 (2011/65/EU+EU2015/863) compliant CE (*3)

Tube exhaust

Direct install. type

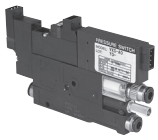
Type	Model code
Without pressure sensor	VX2 3 4-5 6J-8 11



Type	Model code
Pressure sensor with LED display (2 switch outputs)	VX2 3 4-5 6J-8-DW 11

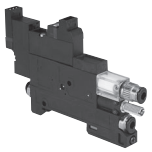
Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VX2 3 4-5 6J-8-DA 11

Type	Model code
Analog output pressure sensor	VX2 3 4-5 6J-8-A0 11



DIN rail type

Type	Model code
Without pressure sensor	VX2 3 4-5 6J-8-D 11



Type	Model code
Pressure sensor with LED display (2 switch outputs)	VX2 3 4-5 6J-8-DW-D 11

Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VX2 3 4-5 6J-8-DA-D 11

Type	Model code
Analog output pressure sensor	VX2 3 4-5 6J-8-A0-D 11

Notes

*1. Please select each code referring to the example of model designation. 2: Code of vacuum characteristics, 3: Nozzle dia. Code, 4: Valve type, 5: Vacuum port size code, 6: Supply port size, 8: Solenoid valve type code.

*2. For Tube exhaust type (both Standard spec, and -S3 spec.), the combination of vacuum characteristics L and nozzle bore 1.0 mm is not available.

*3. 100 VAC type is not CE marked.

CAD data is available at PISCO website.

Packaging specifications

1 pc. /bag

Options

11 : -S3 ⇒ -S3 spec. (Metal option)

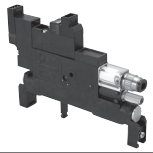
*-S3 spec. is not available for vacuum port size dia.3mm.

RoHS2 (2011/65/EU+EU2015/863) compliant CE (*3)

Manifold Installation Top-Mounting Unit alone

Type	Model code
Without pressure sensor	VX[2][3][4]-[5]-[6]-M[8]

VX-M



Type	Model code
Pressure sensor with LED display (2 switch outputs)	VX[2][3][4]-[5]-[6]-DW-M[8]

VX-M

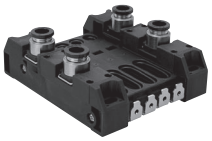
Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VX[2][3][4]-[5]-[6]-DA-M[8]

VX-M

Type	Model code
Analog pressure sensor (No LED)	VX[2][3][4]-[5]-[6]-A0-M[8]

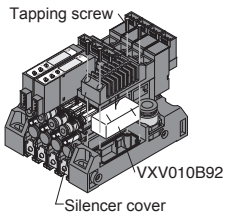
VX-M

Manifold-base alone

Type	Model code
	VXM-[2][3]-02[5] (2 stations)
	VXM-[2][3]-03[5] (3 stations)
	VXM-[2][3]-04[5] (4 stations)
	VXM-[2][3]-05[5] (5 stations)
	VXM-[2][3]-06[5] (6 stations)
	VXM-[2][3]-07[5] (7 stations)
	VXM-[2][3]-08[5] (8 stations)
	VXM-[2][3]-09[5] (9 stations)
	VXM-[2][3]-10[5] (10 stations)

Replacement element

Silencer element for Manifold-base



Silencer element Model code
VXV010B92

Notes

*1. Please select each code referring to the example of Manifold installation Top-Mounting unit model designation . [2]: Code of vacuum characteristics, [3]: Nozzle dia. code, [4]: Valve type code, [5]: Vacuum port size code, and [6]: Solenoid valve type.
*2. Please select each code referring to the example of Manifold -base alone model designation. [2]: Supply port size and [3]: Exhaust type code.
*3. 100 VAC type is not CE marked.

CAD data is available at PISCO website.

Options

1 pc. /bag
2 pcs. /set: Replacement element for Manifold-base

Options

[8] ([5] for Manifold-base alone): -S3 ⇒ -S3 spec. (Metal option)
*1. -S3 spec. for Manifold-base alone is available for Tube exhaust type only.
*2. -S3 spec. for Manifold installation Top-mounting unit is not available for vacuum port size dia. 3 mm.

Stand-alone Type Weight List

Model code	Details of unit	Weight (g)
VX□□□-□□S-□	Open to air (Silencer vent), Without Pressure sensor	71
VX□□□-□□J-□	Tube exhaust, Without Pressure sensor	74
VX□□□-□□S-□-DW(DA)	Open to air (Silencer vent), With LED display pressure sensor	81
VX□□□-□□J-□-DW(DA)	Tube exhaust, With LED display pressure sensor	84
VX□□□-□□S-□-A0	Open to air (Silencer vent), With Analog output pressure sensor	78
VX□□□-□□J-□-A0	Tube exhaust, With Analog output pressure sensor	81

*Add 5 g to the above weights for the DIN rail type.

Manifold Type Weight List

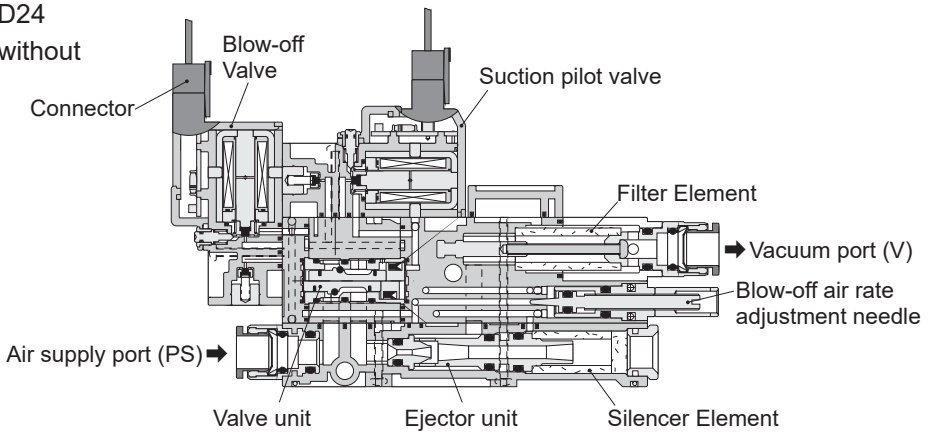
Model code	Details of Manifold mounting unit	Weight (g)
VX□□□-□□S-□□-DW(DA)-M02	Open to air (Silencer vent), With LED display pressure sensor, 2-station Manifold	310
VX□□□-□□□-□□-DW(DA)-M02	Tube exhaust, With LED display pressure sensor, 2-station Manifold	330

*1. Add 90 g for each additional station.

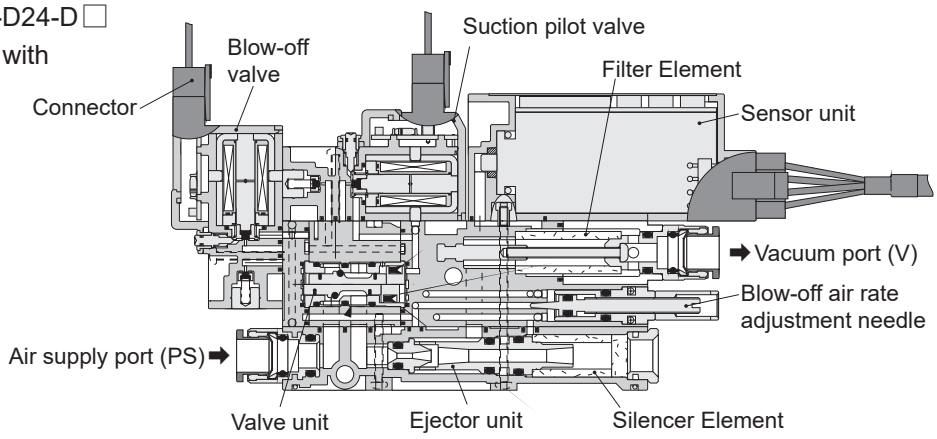
*2. The weights above indicates the weight of Manifold type with LED display pressure sensor. Manifold type with Analog output pressure sensor (no pressure display) weighs 3 grams less than the weights above, and Manifold type without Pressure sensor weighs 10 grams less than the weights above.

Sectional Drawings

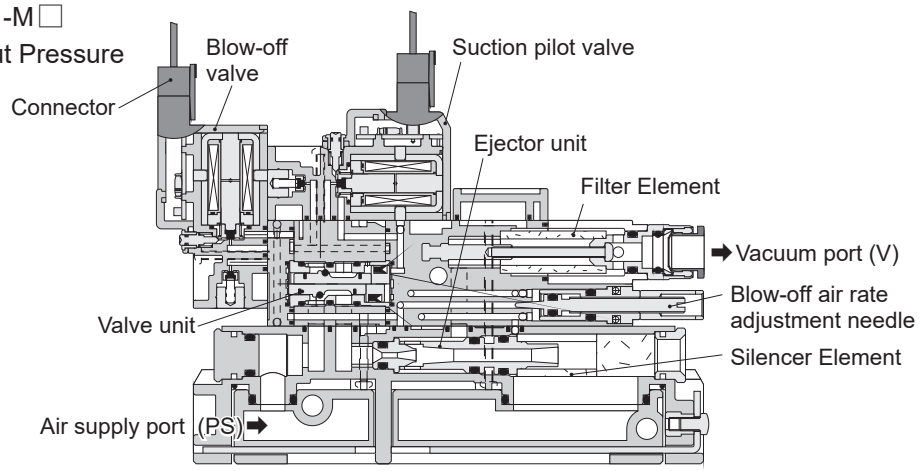
Ex.). VX□□□-□□S-D24
(Stand-alone type without Pressure sensor)



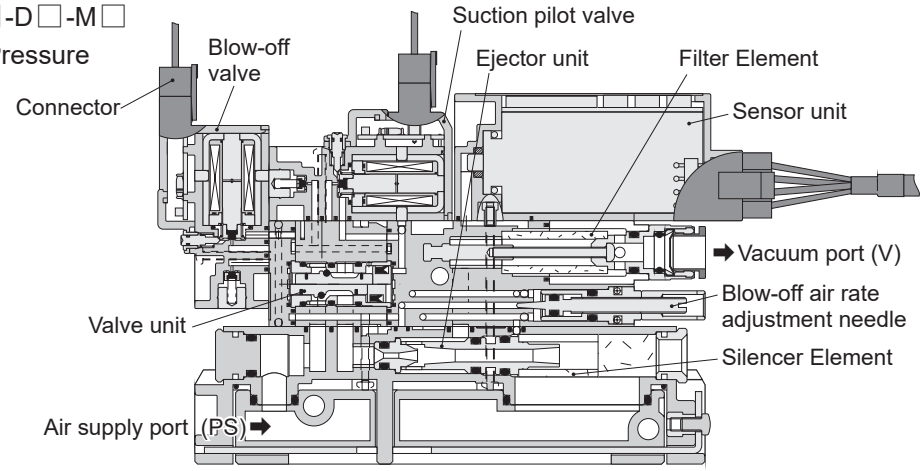
Ex.). VX□□□-□□S-D24-D□
(Stand-alone type with Pressure sensor)



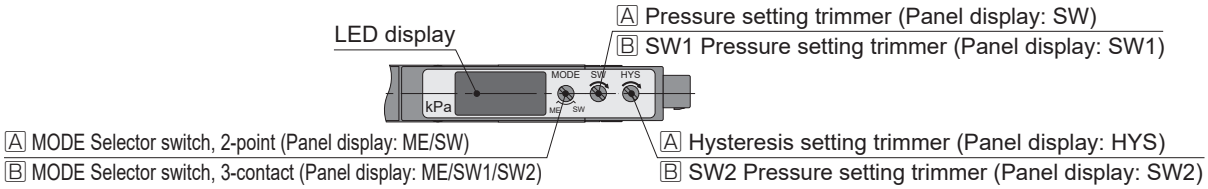
Ex.). VX□□□-□□S-□-M□
(Manifold type without Pressure sensor)



Ex.). VX□□□-□□S-□-D□-M□
(Manifold type with Pressure sensor)



Names of Pressure Sensor Components

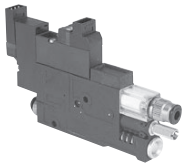


A: 1 switch output, 1 analog output, B: 2 switch outputs

Dimensional Drawings

VX Silencer vent, Direct instl.

Model code: VX□□(D)-□□S-□



Unit: mm

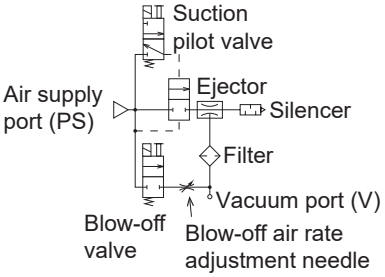
	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	13.2	10.4
	4	13.2	10.9
	6	13.5	11.7

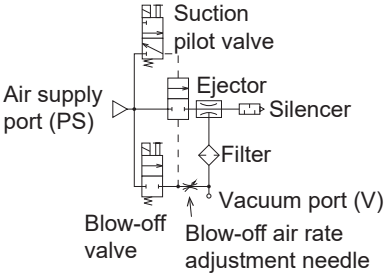
*100 VAC type is not CE marked.

Circuit diagram

Normally closed

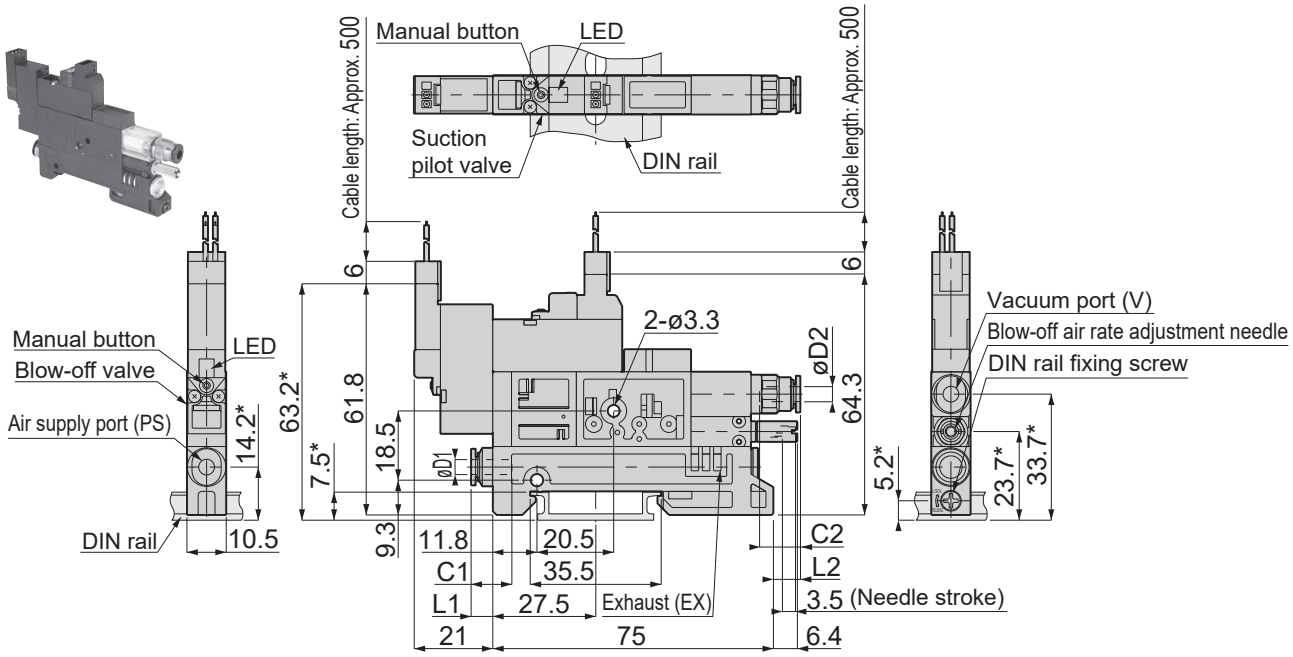


Double-piloted



VX Silencer vent, DIN rail

Model code: VX□□(D)-□□S-□-D



Unit: mm

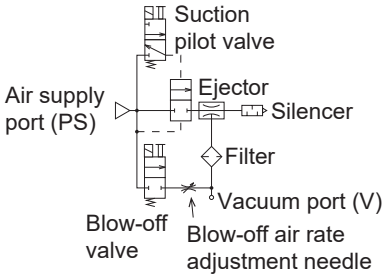
	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	7.2	10.4
	4	7.2	10.9
	6	7.5	11.7

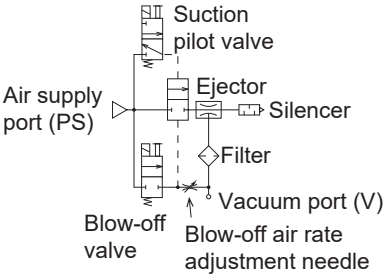
1. The dimensions marked with "" are for DIN rail height of 7.5 mm.
*2. 100 VAC type is not CE marked.

Circuit diagram

Normally closed

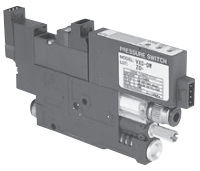


Double-piloted



VX Silencer vent, With LED display pressure sensor (2 switch outputs), Direct instl.

Model code: VX□□(D)-□□S-□-DW



Unit: mm

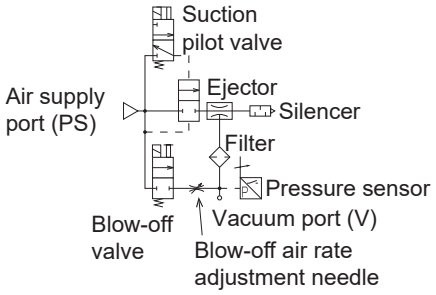
	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	13.2	10.4
	4	13.2	10.9
	6	13.5	11.7

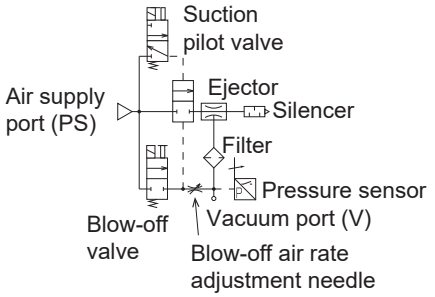
*100 VAC type is not CE marked.

Circuit diagram

Normally closed

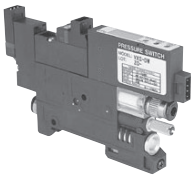


Double-piloted



VX Silencer vent, With LED display pressure sensor (2 switch outputs), DIN rail

Model code: VX□□(D)-□□S-□-DW-D



Unit: mm

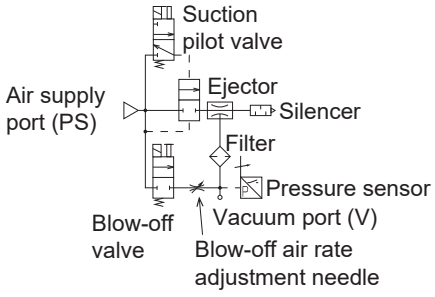
	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	7.2	10.4
	4	7.2	10.9
	6	7.5	11.7

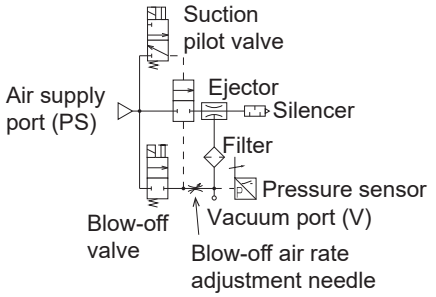
1. The dimensions marked with "" are for DIN rail height of 7.5 mm.
*2. 100 VAC type is not CE marked.

Circuit diagram

Normally closed

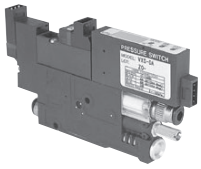


Double-piloted



VX Silencer vent, With LED display pressure sensor (1 analog and 1 switch output), Direct instl.

Model code: VX□□(D)-□□S-□-DA



Unit: mm

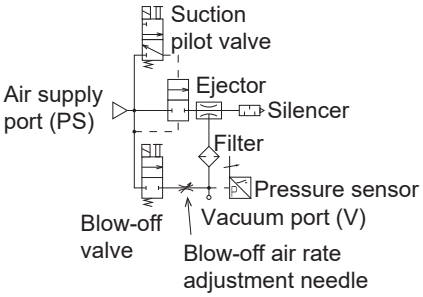
	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	13.2	10.4
	4	13.2	10.9
	6	13.5	11.7

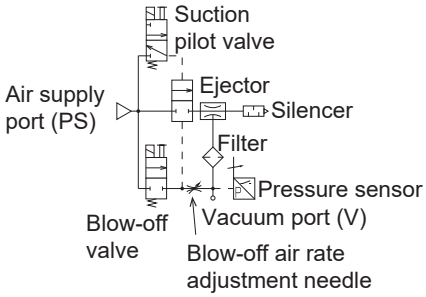
*100 VAC type is not CE marked.

Circuit diagram

Normally closed

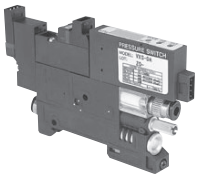


Double-piloted



VX Silencer vent, With LED display pressure sensor (1 analog and 1 switch output), DIN rail

Model code: VX□□(D)-□□S-□-DA-D



Unit: mm

	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

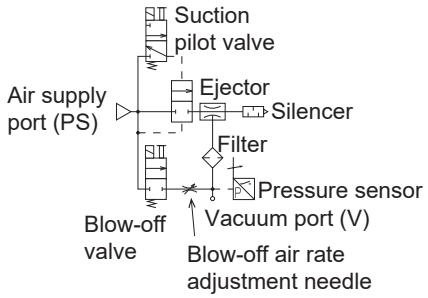
	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	7.2	10.4
	4	7.2	10.9
	6	7.5	11.7

1. The dimensions marked with "" are for DIN rail height of 7.5 mm.

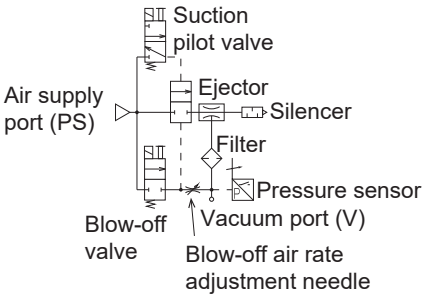
*2. 100 VAC type is not CE marked.

Circuit diagram

Normally closed

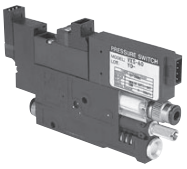


Double-piloted



VX Silencer vent, With Analog output pressure sensor, Direct instl.

Model code: VX□□(D)-□□S-□-A0



Unit: mm

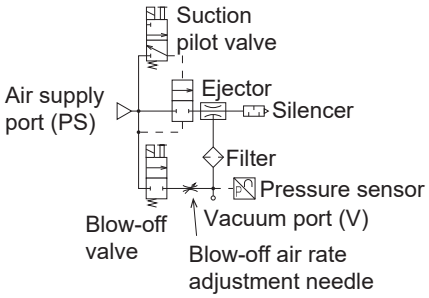
	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	13.2	10.4
	4	13.2	10.9
	6	13.5	11.7

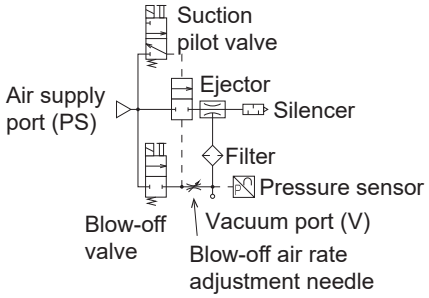
*100 VAC type is not CE marked.

Circuit diagram

Normally closed

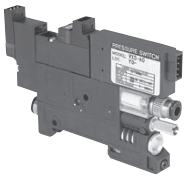


Double-piloted



VX Silencer vent, With Analog output pressure sensor, DIN rail

Model code: VX□□(D)-□□S-□-A0-D



Unit: mm

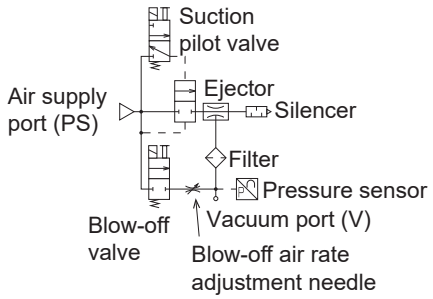
	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	7.2	10.4
	4	7.2	10.9
	6	7.5	11.7

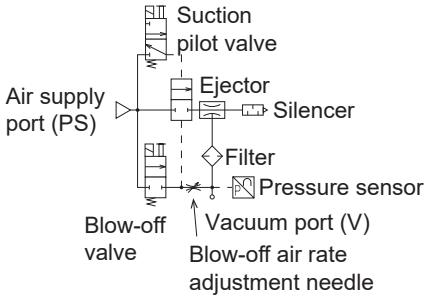
1. The dimensions marked with "" are for DIN rail height of 7.5 mm.
*2. 100 VAC type is not CE marked.

Circuit diagram

Normally closed

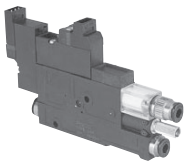


Double-piloted



VX Tube exhaust, Direct instl.

Model code: VX□□(D)-□□J-□□



Unit: mm

	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

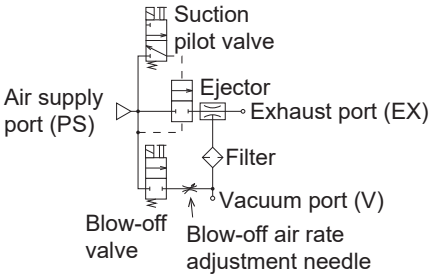
	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	13.2	10.4
	4	13.2	10.9
	6	13.5	11.7

*1. 100 VAC type is not CE marked.

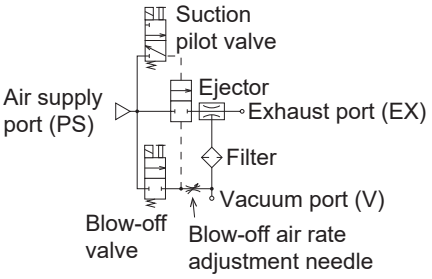
*2. For -S3 spec. (Metal option), add “-S3” at the end of the model code. -S3 spec. is not available for ø3 mm vacuum port size.

Circuit diagram

Normally closed

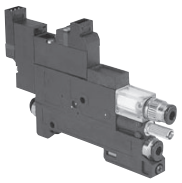


Double-piloted



VX Tube exhaust, DIN rail

Model code: VX□□(D)-□□J-□-D□



Unit: mm

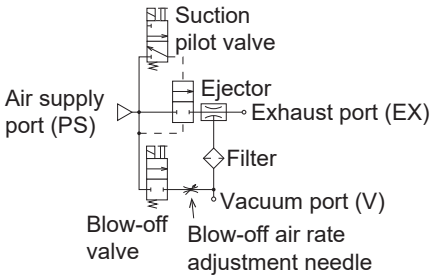
	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	7.2	10.4
	4	7.2	10.9
	6	7.5	11.7

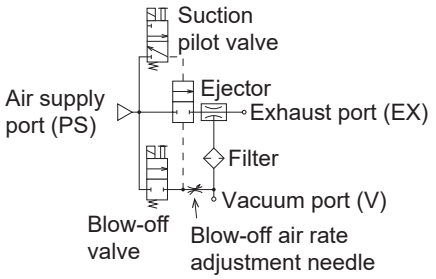
1. The dimensions marked with "" are for DIN rail height of 7.5 mm.
*2. 100 VAC type is not CE marked.
*3. For -S3 spec. (Metal option), add "-S3" at the end of the model code. -S3 spec. is not available for ø3 mm vacuum port size.

Circuit diagram

Normally closed

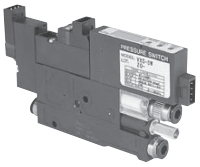


Double-piloted



VX Tube exhaust, With LED display pressure sensor (2 switch outputs), Direct instl.

Model code: VX□□(D)-□□J-□-DW□



Unit: mm

	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

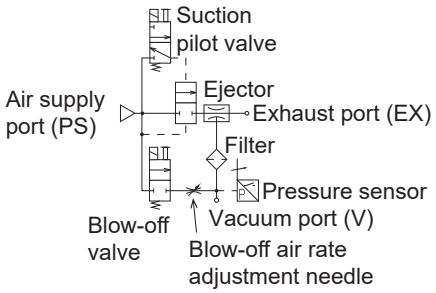
	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	13.2	10.4
	4	13.2	10.9
	6	13.5	11.7

*1. 100 VAC type is not CE marked.

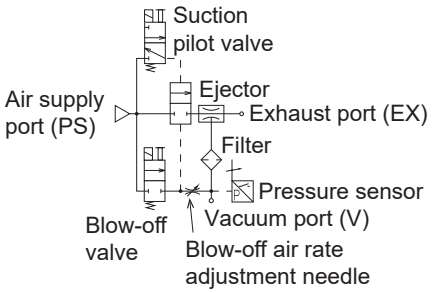
*2. For -S3 spec. (Metal option), add “-S3” at the end of the model code. -S3 spec. is not available for ø3 mm vacuum port size.

Circuit diagram

Normally closed

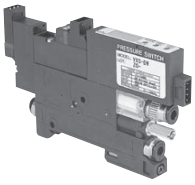


Double-piloted



VX Tube exhaust, With LED display pressure sensor (2 switch outputs), DIN rail

Model code: VX□□(D)-□□J-□-DW-D□



Unit: mm

	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	7.2	10.4
	4	7.2	10.9
	6	7.5	11.7

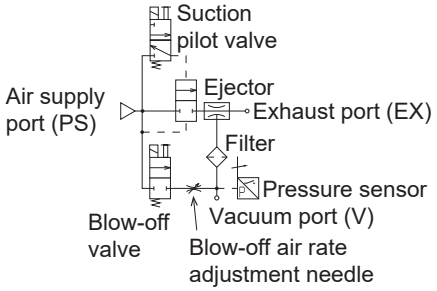
1. The dimensions marked with "" are for DIN rail height of 7.5 mm.

*2. 100 VAC type is not CE marked.

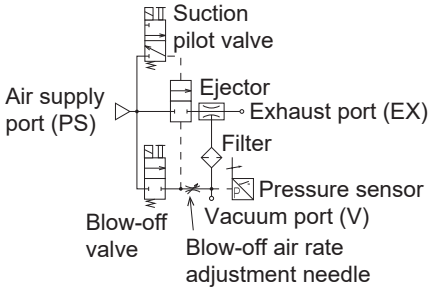
*3. For -S3 spec. (Metal option), add "-S3" at the end of the model code. -S3 spec. is not available for ø3 mm vacuum port size.

Circuit diagram

Normally closed

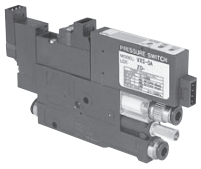


Double-piloted



VX Tube exhaust, With LED display pressure sensor (1 analog and 1 switch output), Direct instl.

Model code: VX□□(D)-□□J-□-DA□



Unit: mm

	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

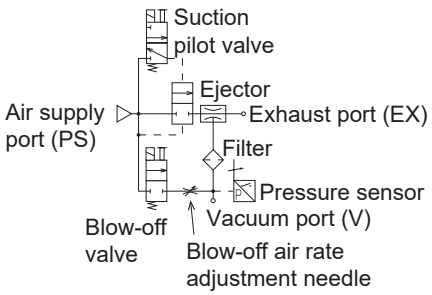
	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	13.2	10.4
	4	13.2	10.9
	6	13.5	11.7

*1. 100 VAC type is not CE marked.

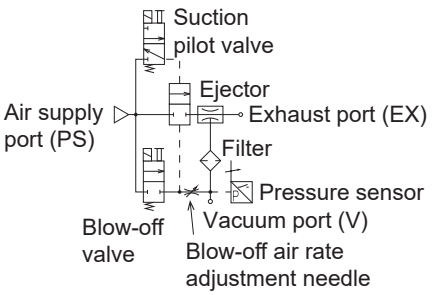
*2. For -S3 spec. (Metal option), add “-S3” at the end of the model code. -S3 spec. is not available for ø3 mm vacuum port size.

Circuit diagram

Normally closed

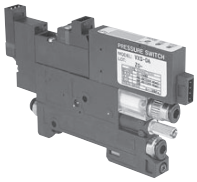


Double-piloted



VX Tube exhaust, With LED display pressure sensor (1 analog and 1 switch output), DIN rail

Model code: VX□□(D)-□□J-□-DA□-D□



Unit: mm

	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	7.2	10.4
	4	7.2	10.9
	6	7.5	11.7

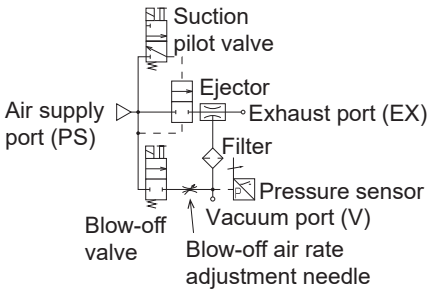
1. The dimensions marked with "" are for DIN rail height of 7.5 mm.

*2. 100 VAC type is not CE marked.

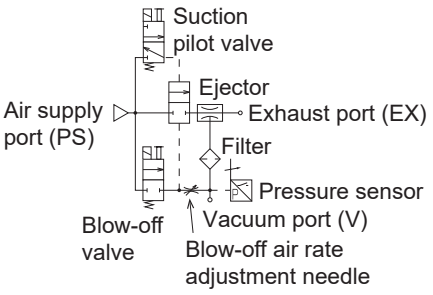
*3. For -S3 spec. (Metal option), add "-S3" at the end of the model code. -S3 spec. is not available for ø3 mm vacuum port size.

Circuit diagram

Normally closed

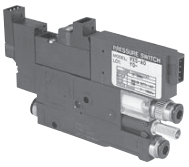


Double-piloted



VX Tube exhaust, With Analog output pressure sensor, Direct instl.

Model code: VX□□(D)-□□J-□-A0□



Unit: mm

	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

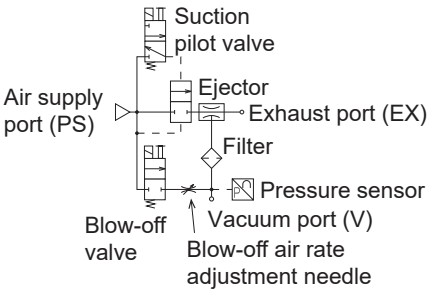
	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	13.2	10.4
	4	13.2	10.9
	6	13.5	11.7

*1. 100 VAC type is not CE marked.

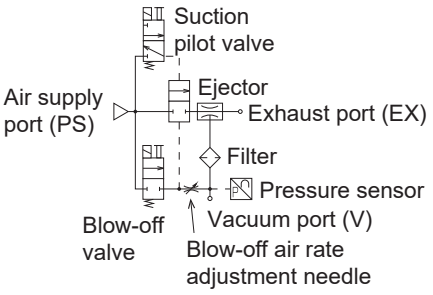
*2. For -S3 spec. (Metal option), add “-S3” at the end of the model code. -S3 spec. is not available for ø3 mm vacuum port size.

Circuit diagram

Normally closed

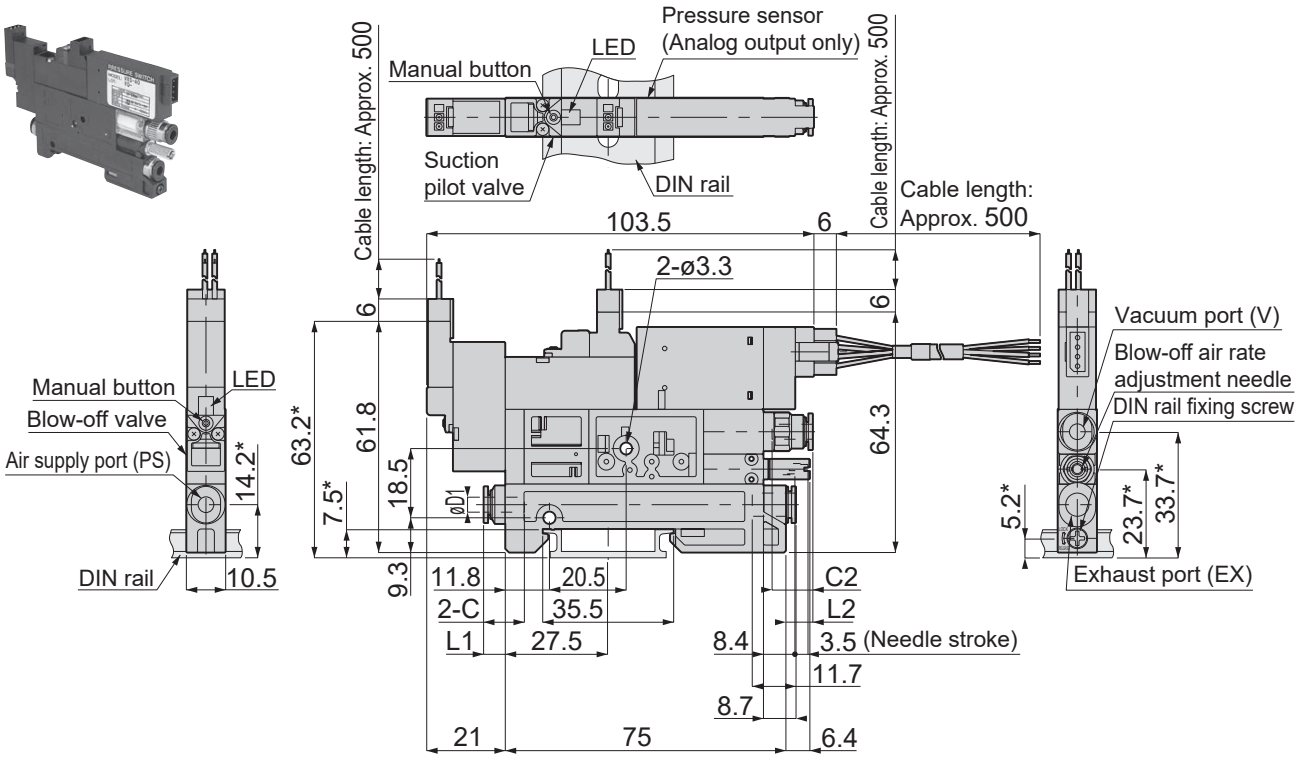


Double-piloted



VX Tube exhaust, With Analog output pressure sensor, DIN rail

Model code: VX□□(D)-□□J-□-A0-D



Unit: mm

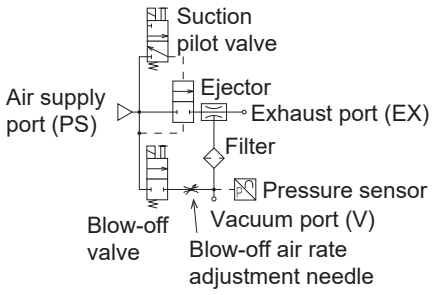
	Tube O.D. øD1	L1	Tube end C1
Air supply port	4	5.8	10.9
	6	8.7	11.7

	Tube O.D. øD2	L2	Tube end C2
Vacuum port	3	7.2	10.4
	4	7.2	10.9
	6	7.5	11.7

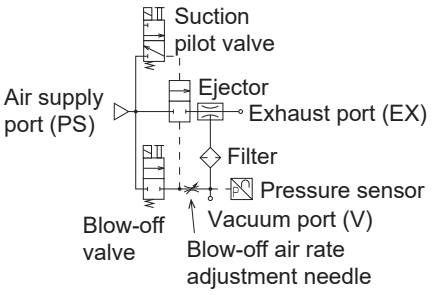
1. The dimensions marked with "" are for DIN rail height of 7.5 mm.
*2. 100 VAC type is not CE marked.
*3. For -S3 spec. (Metal option), add "-S3" at the end of the model code. -S3 spec. is not available for ø3 mm vacuum port size.

Circuit diagram

Normally closed

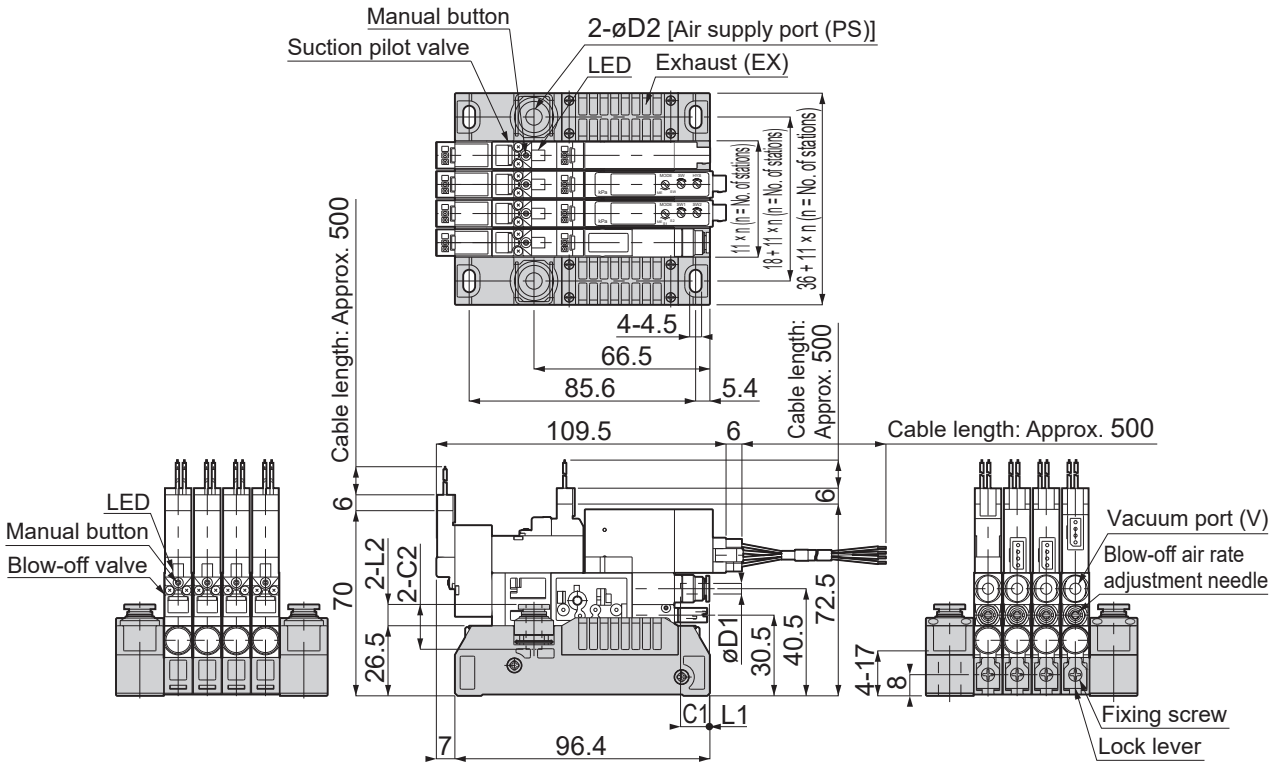


Double-piloted



VX-M Silencer vent, Manifold type

Model code: VX□□□-□□S-□□-M□



Unit: mm

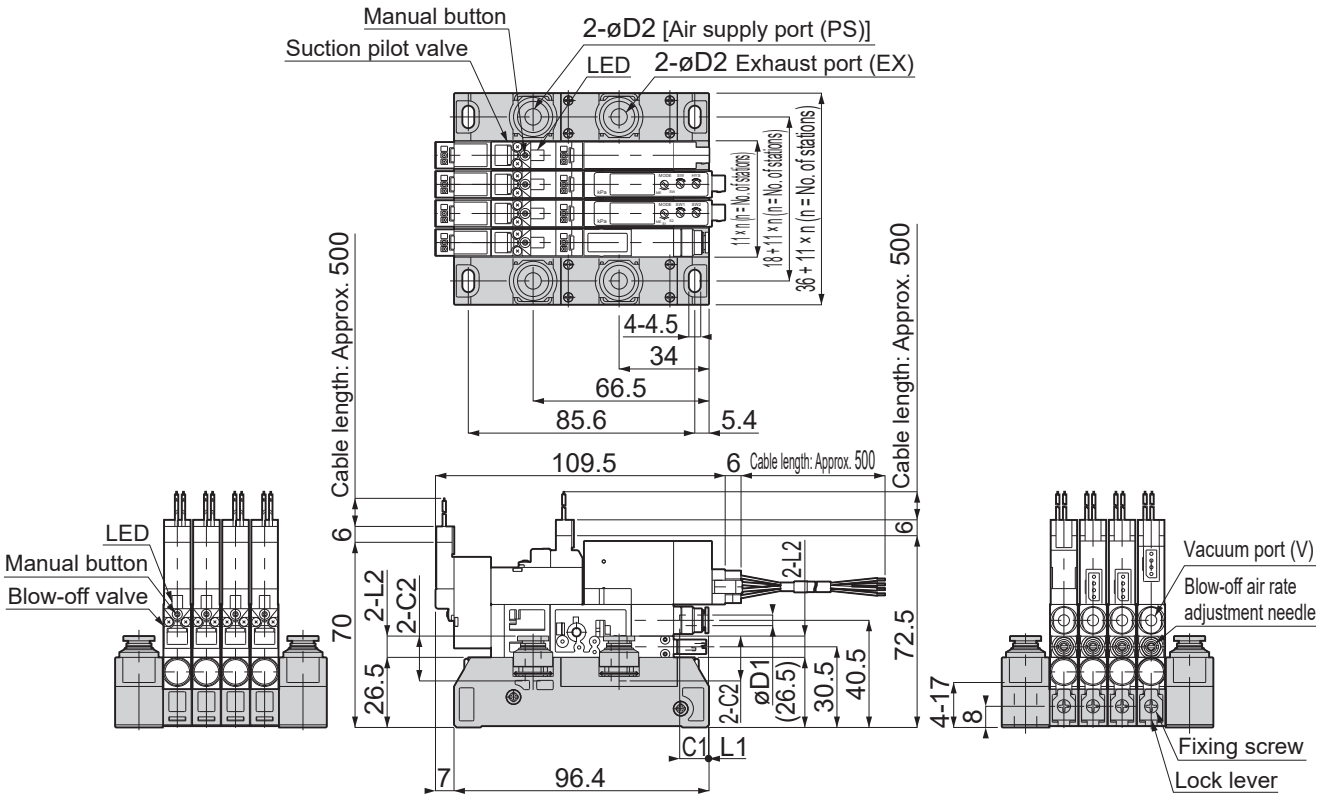
	Tube O.D. øD1	L1	Tube end C1
Vacuum port	3	0.2	10.4
	4	0.2	10.9
	6	-0.1	11.7

	Tube O.D. øD2	L2	Tube end C2
Air supply port	4	3.5	14.9
	6	8.1	17
	8	9.6	18.2
	10	13.2	20.7

*100 VAC type is not CE marked.

VX-M Tube exhaust, Manifold type

Model code: VX□□□-□□□-□□-M□□



Unit: mm

	Tube O.D. øD1	L1	Tube end C1
Vacuum port	3	0.2	10.4
	4	0.2	10.9
	6	-0.1	11.7

	Tube O.D. øD2	L2	Tube end C2
Air supply port Exhaust port	4	3.5	14.9
	6	8.1	17
	8	9.6	18.2
	10	13.2	20.7

*1. 100 VAC type is not CE marked.

*2. For -S3 spec. (Metal option), add “-S3” at the end of the model code. -S3 spec. is not available for ø3 mm vacuum port size.