

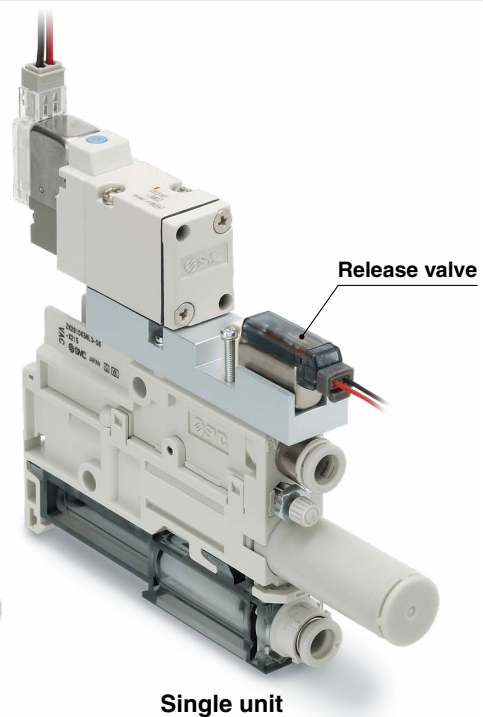
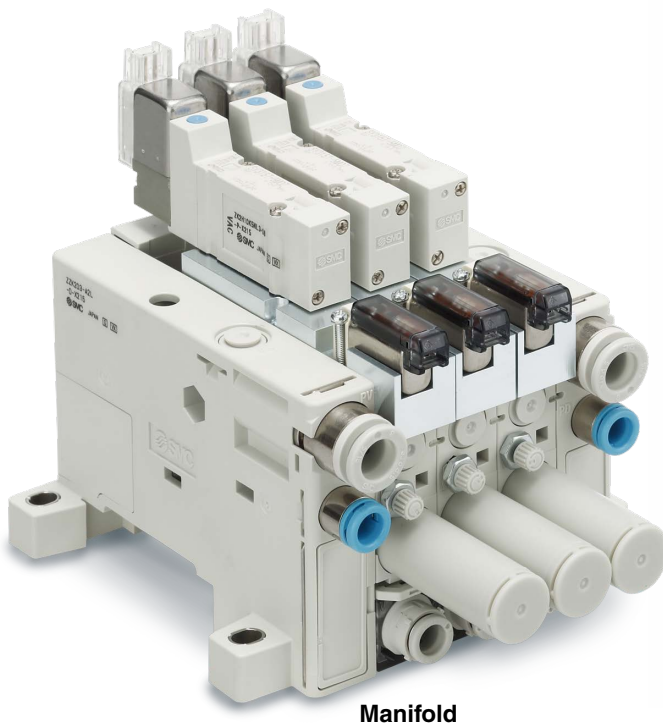
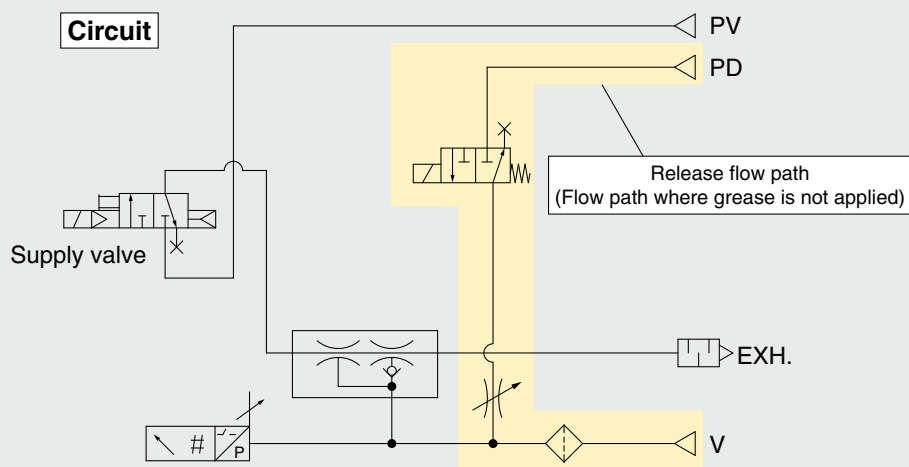
! Contact our sales office for delivery dates and prices as this is a special model.

Specialized Product **P.G.** Point to Group information

# Vacuum Ejector: Grease-free Release Flow Path Specification ZK2-X215

Features

Prevents grease from splashing onto workpieces due to release air



**Caution**

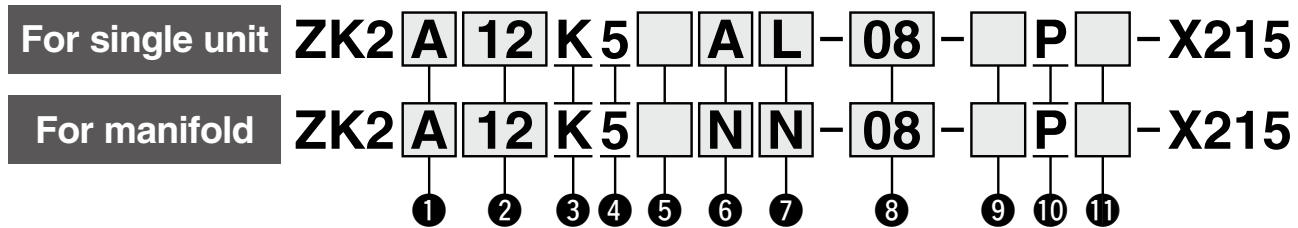
To ensure the safest possible operation of this product, please be sure to thoroughly read the "Safety Instructions" in our "Best Pneumatics" catalog before use.

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SP177E-019E  
P: WQ

### How to Order Single Unit



#### 1 System/Body type

Symbol	System	Body type	Exhaust type
<b>A</b>	Ejector system	For single unit	Silencer exhaust
<b>B</b>			Port exhaust*1
<b>G</b>			High-noise reduction silencer exhaust
<b>C</b>		For manifold	Complex exhaust*2
<b>F</b>			Individual port exhaust*1
<b>H</b>			High-noise reduction silencer exhaust

- \*1 Port size of exhaust port: mm: ø8
- \*2 The complex exhaust method combines the common exhaust from the end plate and the direct exhaust from each station.

#### 2 Nominal nozzle size

Symbol	System	Nominal size
<b>07</b>	Ejector system*3	ø0.7
<b>10</b>		ø1.0
<b>12</b>		ø1.2
<b>15</b>		ø1.5

- \*3 Standard supply pressure for nozzle size 07 to 12: 0.35 MPa  
15: 0.4 MPa

#### 3 Combination of supply valve and release valve

Symbol	Supply valve	Release valve
<b>K</b>	N.C.	N.C.

#### 4 Rated voltage\*4

Symbol	Voltage
<b>5</b>	24 VDC

- \*4 Rated voltage for the supply and release valve

#### 5 Supply valve manual override

Symbol	Type
<b>Nil</b>	Non-locking push type
<b>E</b>	Push-turn locking lever type

#### 6 Pressure sensor/Digital pressure switch for vacuum specifications

Symbol	Type	Pressure range [kPa]	Specifications
<b>P</b>	Pressure sensor	0 to -101	Analog output 1 to 5 V
<b>T</b>		-100 to 100	Analog output 1 to 5 V
<b>A</b>	Digital pressure switch for vacuum	0 to -101	NPN 2 outputs Unit selection function*5 SI unit only*6
<b>B</b>			PNP 2 outputs Unit selection function*5 SI unit only*6
<b>C</b>			PNP 2 outputs Unit selection function*5 SI unit only*6
<b>D</b>		-100 to 100	NPN 2 outputs Unit selection function*5 SI unit only*6
<b>E</b>			PNP 2 outputs Unit selection function*5 SI unit only*6
<b>F</b>			PNP 2 outputs Unit selection function*5 SI unit only*6
<b>J</b>	-100 to 100	NPN 1 output Unit selection function*5 SI unit only*6	
<b>K</b>		PNP 1 output Unit selection function*5 SI unit only*6	
<b>Q</b>		PNP 1 output Unit selection function*5 SI unit only*6	
<b>R</b>	Digital pressure switch for vacuum with energy saving function	-100 to 100	PNP 1 output Unit selection function*5 SI unit only*6
<b>S</b>			PNP 1 output Unit selection function*5 SI unit only*6
<b>N</b>	Without pressure sensor/digital pressure switch for vacuum		

- \*5 The unit selection function is not available in Japan due to the New Measurement Law.
- \*6 Fixed unit: kPa

#### 7 Supply valve/Release valve/Digital pressure switch for vacuum connector specifications

Symbol	3 For supply valve/release valve*7		6 Lead wire with connector for pressure switch/sensor*10
	Connector type	Lead wire with connector	
<b>L</b>	L plug connector	○*8	○*11
<b>L1</b>		×*9	○*11
<b>L2</b>		○*8	×*12
<b>L3</b>		×*9	×*12

- \*7 Solenoid valve with light/surge voltage suppressor
- \*8 The standard lead wire length for the solenoid valve is 300 mm.
- \*9 For lead wire lengths other than that of the standard, select "L1" or "L3," and order a connector assembly with the desired length, referring to the **Web Catalog** (Replacement Parts).
- \*10 The standard lead wire length for the pressure sensor is 3 m. The standard length for the lead wire with connector for the switch for vacuum and the lead wire length for the switch with energy saving function is 2 m.
- \*11 Select "L" or "L1" when the pressure sensor (P, T) is selected for 6 Pressure Sensor/Digital Pressure Switch for Vacuum Specifications. Since only the grommet type is available for the pressure sensor, the sensor without a lead wire cannot be selected.
- \*12 Select when no pressure switch for vacuum, pressure sensor, or pressure switch for vacuum with connector without a lead wire is used.

#### 8 Vacuum (V) port\*13

Symbol	Type	Port size
<b>06</b>	Metric size	ø6 One-touch fitting
<b>08</b>		ø8 One-touch fitting

- \*13 Supply port (PV) size of single unit: ø6

#### 10 Release pressure supply specification

Symbol	Specification
<b>P</b>	Manifold common release pressure supply specification

#### 11 With exhaust interference prevention valve

Symbol	Type
<b>Nil</b>	None
<b>W</b>	Built-in

#### 9 Optional specifications (Single unit)\*14

Symbol	Type
<b>Nil</b>	Without option
<b>B</b>	With one bracket for mounting a single unit (A mounting screw is attached.)
<b>E</b>	Long lock nut specification Screwdriver operation type*15
<b>J</b>	Vacuum break flow adjusting needle Round lock nut type
<b>K</b>	Vacuum break flow adjusting needle Screwdriver operation type
<b>W</b>	With exhaust interference prevention valve*16 *17 *18

- \*14 When more than one option is selected, list the option symbols in alphabetical order. Example) -BJ Refer to the **Web Catalog** for Function/Application.
- \*15 Combinations of "EJ," "EK," and "EJK" are not available.

#### 9 Optional specifications (Manifold)\*14

Symbol	Type
<b>Nil</b>	Without option
<b>E</b>	Long lock nut specification Screwdriver operation type
<b>J</b>	Vacuum break flow adjusting needle Round lock nut type
<b>K</b>	Vacuum break flow adjusting needle Screwdriver operation type

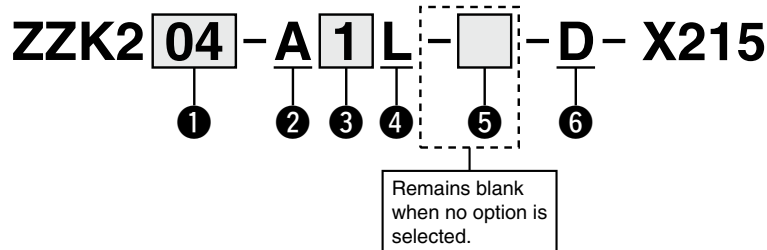
- \*16 To prevent backflow of the manifold common exhaust, not for holding vacuum. This option does not completely stop the backflow of the exhaust air. Select the port exhaust type according to the application.
- \*17 When "J" is selected for 3 Combination of Supply Valve and Release Valve, and "W" (with exhaust interference prevention valve) is selected for 9 Optional Specifications, install a release valve or vacuum breaker.
- \*18 When "K," "Q," "R," or "S" is selected for 6 Pressure Sensor/Digital Pressure Switch for Vacuum Specifications, a model with an exhaust interference prevention valve is provided. So, it is not necessary to select "W."

#### Single Unit and Options

1 System/Body type	2 Nominal nozzle size	3 Combination of supply valve and release valve	4 Rated voltage	6 Pressure sensor/Digital pressure switch for vacuum specifications	7 Supply valve/Release valve/Digital pressure switch for vacuum connector specifications	8 Vacuum (V) port	9 Optional specifications
A/B/G	07 10 12 15	K	5	P/T	L/L1	06 08	B/J/K/W
				A/B/C/D/E/F/H/J	L/L1/L2/L3		
				N	L2/L3		
				K/Q/R/S	L3		
				P/T	L/L1		
				A/B/C/D/E/F/H/J	L/L1/L2/L3		
C/F/H				N	L2/L3		J/K
				P/T	L/L1		
				A/B/C/D/E/F/H/J	L/L1/L2/L3		
				N	L2/L3		
				K/Q/R/S	L3		

For options not listed in the table above, please contact SMC.

## How to Order Manifold



### ① Stations\*1

Symbol	Stations
01	1 station
02	2 stations
⋮	⋮
10	10 stations

\*1 In the case of ejectors, for adequate performance, the number of stations that can be operated simultaneously depends on the nozzle diameter. (Refer to Maximum Number of Manifold Stations that can be Operated Simultaneously in the **Web Catalog**.)

### ② System (Port combination)

Symbol	System	Port	Standard
A	Ejector system	Common PV: ø8	Metric size

### ③ Exhaust

Symbol	Exhaust type	
1	Ejector system	Complex exhaust*4 (End plate on both sides)*2
2		Individual exhaust (Individual port exhaust, High-noise reduction silencer exhaust)*3

\*2 Select "C" for ① System/Body Type for the single unit model number. Air is exhausted not only from the end plate but also from the exhaust of each station.

\*3 Select "F" or "H" for ① System/Body Type for the single unit model number.

\*4 The complex exhaust method combines the common exhaust from the end plate and the direct exhaust from each station.

### ④ Wiring\*5

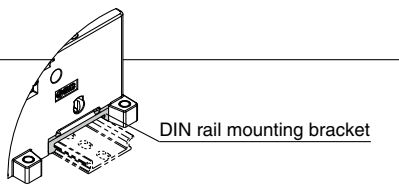
Symbol	Type
L	Individual wiring specification*6

\*5 Common wiring is available only for solenoid valve wiring. Individual wiring is specified for vacuum switches and sensors.

\*6 Select "L" or "L□" for ⑦ Supply Valve/Release Valve/Digital Pressure Switch for Connector Specifications for the single unit model number.

### ⑤ Option

Symbol	Type
Nil	Without option
B	With DIN rail mounting bracket*7



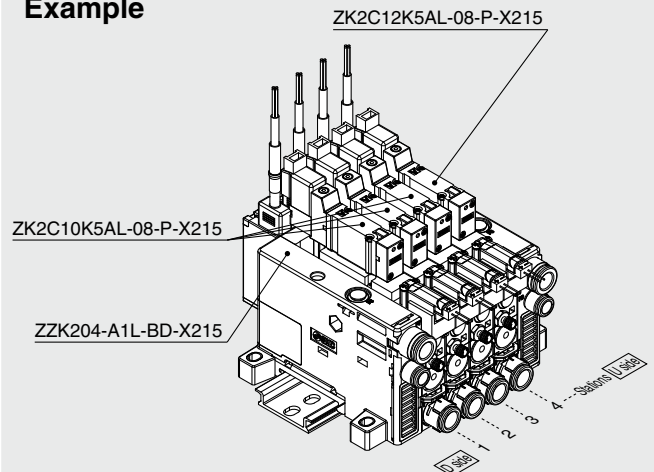
\*7 The DIN rail should be ordered separately. (Refer to the **Web Catalog**)

### ⑥ PD port

Symbol	Port size
D	ø6

## How to Order Valve Manifold Assembly

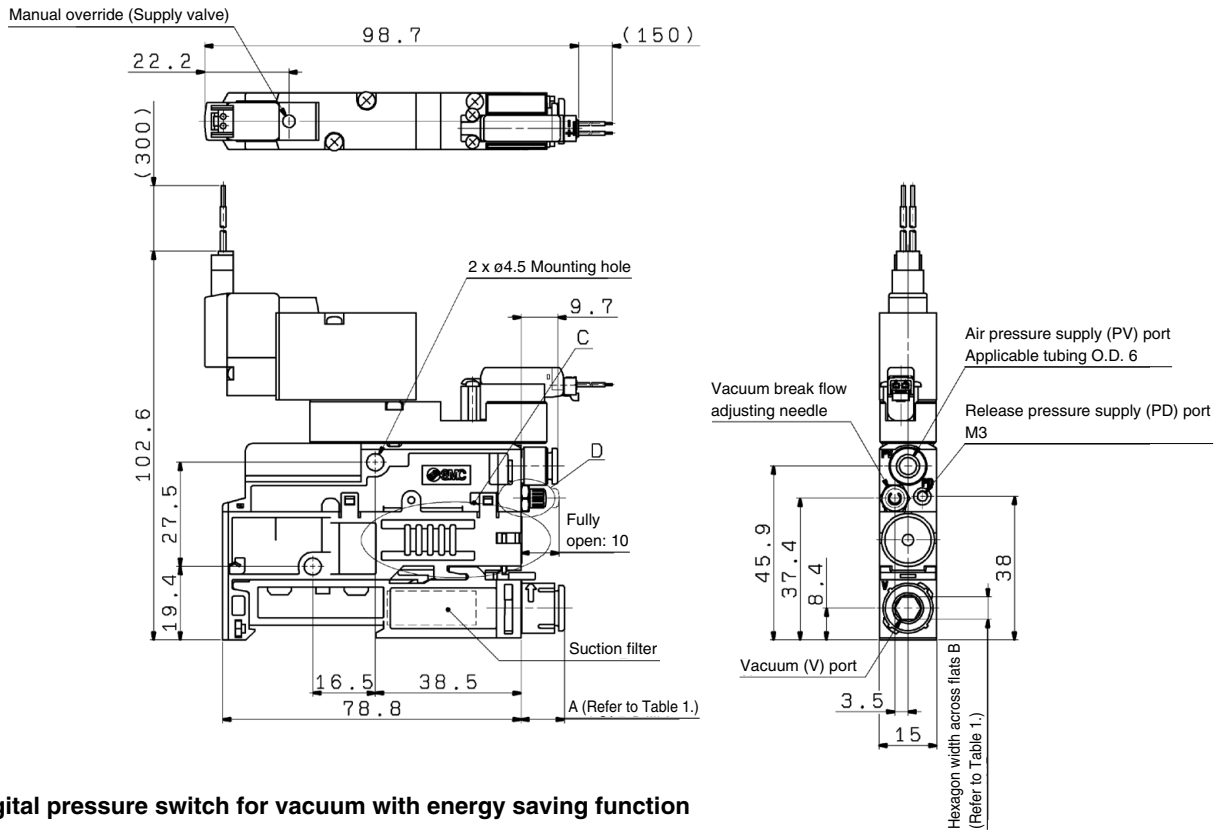
### Example



**ZZK204-A1L-BD-X215.....1 set (Manifold part number)**  
 \* ZK2C10K5AL-08-P-X215.....3 sets (Nozzle nominal size: ø1.0)  
 \* ZK2C12K5AL-08-P-X215.....1 set (Nozzle nominal size: ø1.2)  
 ↳ \* The asterisk denotes the symbol for the assembly.  
 \* Prefix to the single unit part number.

- When the manifold is viewed from the V port, the first station starts from the left (D side).
- After the manifold part number, specify the installed single unit from the first station.
- Complex exhaust and individual port exhaust cannot be mixed in the ejector system manifold.
- The DIN rail should be ordered separately. (Refer to the ZK2 series in the **Web Catalog**.)

## Dimensions



With digital pressure switch for vacuum with energy saving function

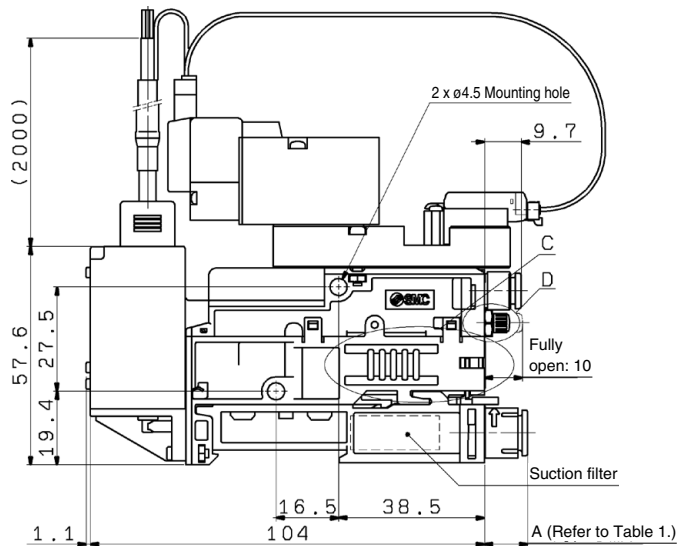
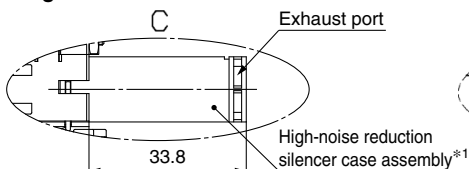


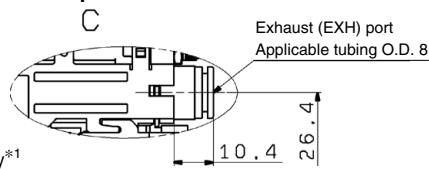
Table 1. V Port Dimensions [mm]

V port size		A	B
Metric size	<b>06</b> $\phi 6$	8.3	4
	<b>08</b> $\phi 8$	11.4	6

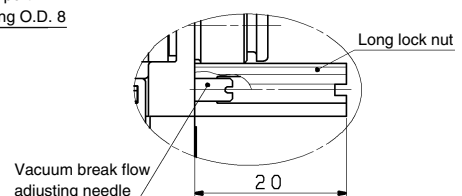
For high-noise reduction silencer exhaust



For port exhaust

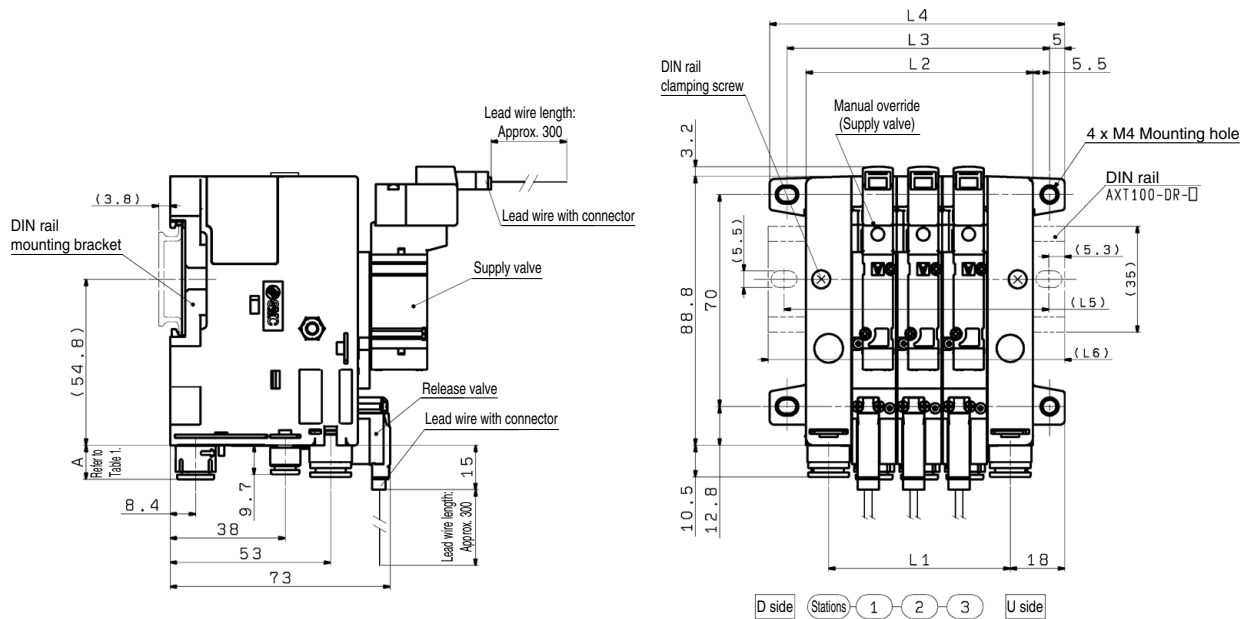


D (2:1)  
ZK2\*\*K5\*\*\*-\*-E-X215



\*1 For the part number and maintenance of the high-noise reduction silencer case assembly, refer to the ZK2 series in the **Web Catalog**.

## Dimensions



### With digital pressure switch for vacuum with energy saving function

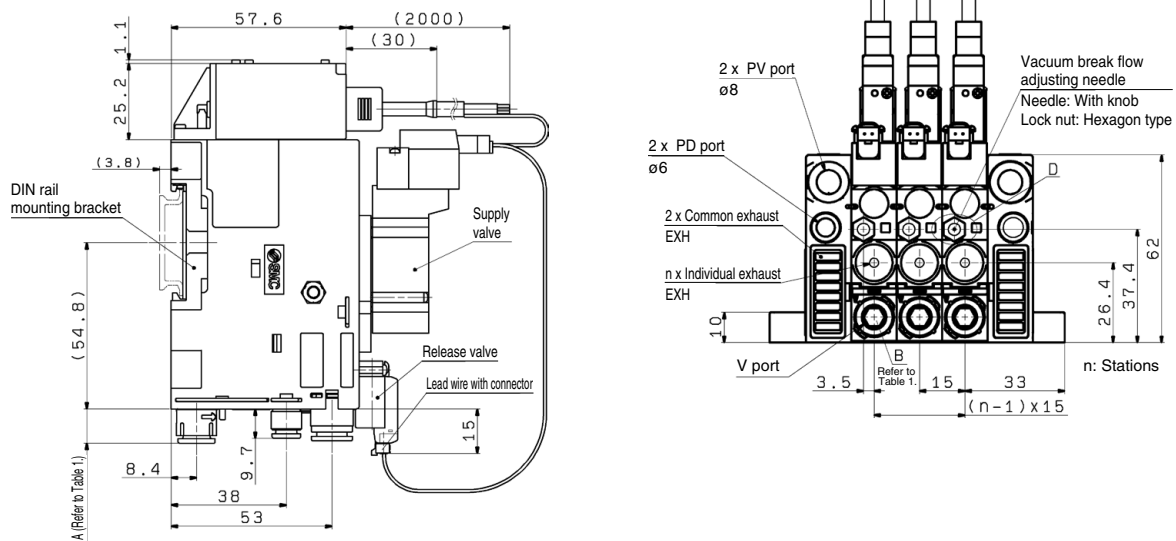


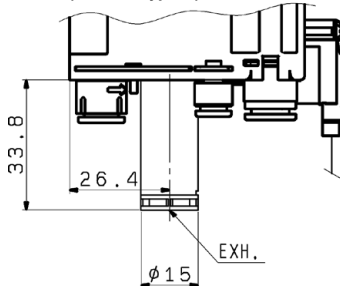
Table 1. V Port Dimensions [mm]

V port size		A	B
Metric size	06 ø6	8.3	4
	08 ø8	11.4	6

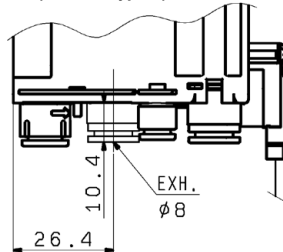
Table 2. Dimensions

Stations	1	2	3	4	5	6	7	8	9	10
L1	30	45	60	75	90	105	120	135	150	165
L2	45	60	75	90	105	120	135	150	165	180
L3	56.8	71.8	86.8	101.8	116.8	131.8	146.8	161.8	176.8	191.8
L4	67.5	82.5	97.5	112.5	127.5	142.5	157.5	172.5	187.5	202.5
L5	62.5	75	87.5	112.5	125	137.5	150	162.5	187.5	200
L6	73	85.5	98	123	135.5	148	160.5	173	198	210.5

When high-noise reduction silencer exhaust (exhaust type H) is selected



When individual port exhaust (exhaust type F) is selected



D (2 : 1)  
ZK2\*\*K5\*\*\*-\*-EP\*-X215

