

Ejector System Vacuum Unit

25A-ZK2□A Series



RoHS

Single Unit Ejector + With Valve + Without Energy Saving Function

How to Order

25A-ZK2 **A** **12** **K** **5** **A** **L** **A** - **08** - □

1
2
3
4
5
6
7
8

1 Body/Exhaust type

Symbol	Body	Exhaust type
A	Single unit	Silencer exhaust*1
		Port exhaust
B	Single unit	High-noise reduction silencer exhaust
G	Single unit	High-noise reduction silencer exhaust

*1 With exhaust port when 2 is 12 or 15

4 Rated voltage (Supply valve/Release valve)

Symbol	Voltage
5	24 VDC
6	12 VDC

5 Pressure switch for vacuum/Pressure sensor

Symbol	Type	Pressure range [kPa]	Specifications		
			NPN 2 outputs	PNP	With unit selection function*3
A	Pressure switch for vacuum	0 to -101	●	—	●
B			●	—	None (SI unit only)
C			—	●	●
D		-100 to 100	—	●	None (SI unit only)
E			●	—	●
F			●	—	None (SI unit only)
H	—	●	●		
J	—	●	None (SI unit only)		
P	Pressure sensor	0 to -101	Analog output 1 to 5 V		
T		-100 to 100			
N	Without pressure switch for vacuum/pressure sensor				

*3 The unit selection function is not available in Japan due to the New Measurement Law. The unit for the type without the unit selection function is fixed as kPa.

7 Vacuum (V) port

Symbol	Vacuum (V) port
06	ø6
08	ø8

Manifold type is not available.

2 Nominal nozzle size

Symbol	Nominal nozzle size
07	ø0.7
10	ø1.0
12	ø1.2
15	ø1.5

* The standard supply pressure of each nozzle diameter is the same as that of the corresponding standard product.
[Click here for details.](#)

3 Combination of supply valve and release valve

Symbol	Supply valve		Release valve
	N.C.	Self-holding	N.C.
K	●	—	●
J	●	—	—
R	—	●*2	●

*2 Supply valve maintains vacuum by energization (20 ms or more). Stopping the vacuum turns on the release valve.

6 Connector (Supply valve/Release valve/Pressure switch for vacuum)

Symbol	For supply valve/ release valve: 300 mm (Connector assembly)*4	For pressure switch for vacuum: 2 m (Lead wire with connector)	Pressure sensor assembly: 3 m (With lead wire)	Note
L	●	—	●	Cannot be selected when 5 is N
L1	None	—	●	
L2	●	—	None	Cannot be selected when 5 is P or T
L3	None	—	None	

*4 For the connector length other than 300 mm, order the connector assembly on page 140-5 separately.

8 Option*5 (For details on the Function/Application, refer to page 140-6.)

Symbol	Type	Note
Nil	Without option	—
B	Mounting bracket for single unit (nuts and bolts are included) 	—
D	With individual release pressure supply (PD) port (M3)*6 	Cannot be selected when 3 is J
E	Vacuum break flow adjusting needle Screwdriver operation type long lock nut 	Cannot be selected when 3 is J
J	Round lock nut Lock nut 	
K	Vacuum break flow adjusting needle Screwdriver operation type 	Can be selected only for the combination of J and K
W	With exhaust interference prevention valve 	When J is selected for 8, install the release valve or vacuum breaker in the middle of the vacuum piping.

*5 When more than one option is selected, list the option symbols in alphabetical order. (Example -BJ)

*6 Use a One-touch fitting or barb fitting for piping. (O.D.: Within ø6.2)

* The 25A- series specifications and dimensions are the same as those of the standard model.

[Click here for details.](#)

Ejector System Vacuum Unit

25A-ZK2□A Series



RoHS

Single Unit Ejector + With Valve + With Energy Saving Function

How to Order

25A-ZK2 **A** **12** **K** **5** **K** **W** **A** - **08** - □

①
②
③
④
⑤
⑥
⑦
⑧

① Body/Exhaust type

Symbol	Body	Exhaust type
A	Single unit	Silencer exhaust*1
		Port exhaust
G	Single unit	High-noise reduction silencer exhaust

*1 With exhaust port when ② is 12 or 15

② Nominal nozzle size

Symbol	Nominal nozzle size
07	ø0.7
10	ø1.0
12	ø1.2
15	ø1.5

* The standard supply pressure of each nozzle diameter is the same as that of the corresponding standard product.
[Click here for details.](#)

③ Combination of supply valve and release valve

Symbol	Supply valve	Release valve
	N.C.	N.C.
K	●	●

④ Rated voltage (Supply valve/Release valve)

Symbol	Voltage
5	24 VDC
6	12 VDC

⑤ Pressure switch for vacuum with energy saving function

Symbol	Pressure range [kPa]	Specifications		
		NPN	PNP	With unit selection function*2
K	-100 to 100	●	—	●
Q		●	—	None (SI unit only)
R		—	●	●
S		—	●	None (SI unit only)

*2 The unit selection function is not available in Japan due to the New Measurement Law. The unit for the type without the unit selection function is fixed as kPa.

⑥ Connector

Symbol	For pressure switch for vacuum with energy saving function: 2 m (Lead wire with connector)
W	●
L3	None

⑦ Vacuum (V) port

Symbol	Vacuum (V) port
06	ø6
08	ø8

⑧ Option*3 (For details on the Function/Application, refer to page 140-6.)

Symbol	Type	Note
Nil	Without option	—
B	Mounting bracket for single unit (nuts and bolts are included)	—
D	With individual release pressure supply (PD) port (M3)*4	—
E	Screwdriver operation type long lock nut	Can be selected only for the combination of J and K
J	Round lock nut	
K	Screwdriver operation type Vacuum break flow adjusting needle	

*3 When more than one option is selected, list the option symbols in alphabetical order. (Example -BJ)

*4 Use a One-touch fitting or barb fitting for piping. (O.D.: Within ø6.2)

Manifold type is not available.

* The 25A-series specifications and dimensions are the same as those of the standard model.

[Click here for details.](#)

Ejector System Vacuum Unit

25A-ZK2□A Series



RoHS

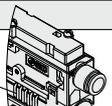
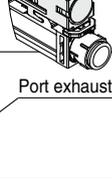
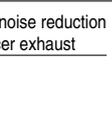
Single Unit Ejector + Without Valve + Without Energy Saving Function

How to Order

25A-ZK2 **A** **12** **N** **0** **N** **N** **A** - **08** - □

①
②
③
④
⑤
⑥

① Body/Exhaust type

Symbol	Body	Exhaust type
A	Single unit	Silencer exhaust* ¹ 
B		Port exhaust 
G		High-noise reduction silencer exhaust 

*1 With exhaust port when ② is 12 or 15

② Nominal nozzle size

Symbol	Nominal nozzle size
07	ø0.7
10	ø1.0
12	ø1.2
15	ø1.5

* The standard supply pressure of each nozzle diameter is the same as that of the corresponding standard product.
[Click here for details.](#)

④ Connector

Symbol	For pressure switch for vacuum: 2 m (Lead wire with connector)	Pressure sensor assembly: 3 m (With lead wire)	Note
Y	●		Cannot be selected when ③ is N
Y1	None		Cannot be selected when ③ is P, T, or N
N	None		When "N" is selected for ③

③ Pressure switch for vacuum/Pressure sensor

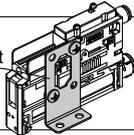
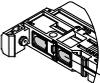
Symbol	Type	Pressure range [kPa]	Specifications		
			NPN 2 outputs	PNP	With unit selection function* ²
A	Pressure switch for vacuum	0 to -101	●	—	●
B			●	—	None (SI unit only)
C			—	●	●
D		—	●	None (SI unit only)	
E		-100 to 100	●	—	●
F			●	—	None (SI unit only)
H	—		●	●	
J			—	●	None (SI unit only)
P	Pressure sensor	0 to -101	Analog output 1 to 5 V		
T		-100 to 100			
N	Without pressure switch for vacuum/pressure sensor				

*² The unit selection function is not available in Japan due to the New Measurement Law. The unit for the type without the unit selection function is fixed as kPa.

⑤ Vacuum (V) port

Symbol	Vacuum (V) port
06	ø6
08	ø8

⑥ Option*³ (For details on the Function/Application, refer to page 140-6.)

Symbol	Type	Note
Nil	Without option	—
B	Mounting bracket for single unit (nuts and bolts are included) 	—
W	With exhaust interference prevention valve 	Install the release valve or vacuum breaker in the middle of the vacuum piping.

*³ When more than one option is selected, list the option symbols in alphabetical order. (Example -BW)

Manifold type is not available.

* The 25A- series specifications and dimensions are the same as those of the standard model.

[Click here for details.](#)

Replacement Parts for Single Unit / How to Order

Valve assembly

25A-ZK2 - VA A K 5 L **A - A**

① ② ③ ④

① Applicable system

A	Ejector system
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② Valve type

K	Supply valve: N.C., Release valve: N.C.
R	Supply valve: Self-holding release valve linked, Release valve: N.C.
J	Supply valve: N.C., Release valve: None

③ Rated voltage

5	24 VDC
6	12 VDC

④ Wiring

L	Individual wiring: With connector assembly (Lead wire length: 300 mm)
LO	Individual wiring: Without connector assembly

Select the 25A-ZK2VAAK LOA-A for a switch with energy saving function.

Connector assembly

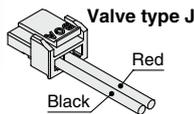
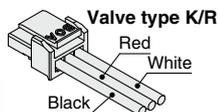
ZK2 - LV W **- A**

Applicable valve type

W	Valve type K/R
S	Valve type J

Lead wire length

Nil	300 mm
6	600 mm
10	1000 mm
20	2000 mm
30	3000 mm



Sound absorbing material (10 pcs. per set)

ZK2 - SE1 - 1 - A

Sound absorbing material hole diameter

1	300 μm
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Vacuum port adapter assembly (Purchasing order is available in units of 1 piece.)

ZK2 - VA1S 8 **- A**

One-touch fitting size

6	φ6 One-touch fitting	Metric size
8	φ8 One-touch fitting	

Filter element (10 pcs. per set)

ZK2 - FE1 - 3 - A

Nominal filtration rating

3	30 μm
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Body gasket*¹ (10 pcs. per set)

ZK2 - BG5 - 1 - A

Applicable type

1	One check valve type (All specifications other than vacuum switch with energy saving function and exhaust interference prevention valve)
2	Two check valve type (Vacuum switch with energy saving function and exhaust interference prevention valve)

*1 When ZK2-BG5-2-A is mounted, the workpiece cannot be removed until vacuum is released.

Filter case*¹

ZK2 - FC **- A**

Port for the pressure switch or sensor

Symbol	Port for the pressure switch or sensor	Filter case color
P	With port (type with pressure switch or sensor)	Smoke
T	Without port (type without pressure switch or sensor)	Clear

*1 Vacuum port adapter assembly is not included.

Pressure switch for vacuum assembly (With 2 mounting screws)

25A-ZK2 - ZS E A M G **- A**

① ② ③ ④

① Rated pressure range and function

E	0 to -101 kPa	Pressure switch for vacuum	Open collector 2 outputs
F	-100 to 100 kPa	Pressure switch for vacuum with energy saving function	Open collector 1 output
V	-100 to 100 kPa	Pressure switch for vacuum with energy saving function	Open collector 1 output

② Output

A	NPN
B	PNP

③ Unit

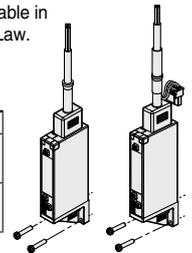
Nil	Unit selection function* ¹
M	SI unit only* ²

*1 The unit selection function is not available in Japan due to the New Measurement Law.

*2 Fixed unit: kPa

④ Lead wire with connector

Nil	None	
G	With lead wire	When ① is E or F...For pressure switch for vacuum, Lead wire with connector (Length 2 m)
		When ① is V...For pressure switch for vacuum with energy saving function, Lead wire with connector (Length 2 m)



Lead wire with connector

(When individual lead wire is necessary, order with the port number below.)

Lead wire with connector for pressure switch for vacuum

ZS - 39 - 5G

Lead wire with connector for pressure switch for vacuum with energy saving function

ZK2 - LW A **20 - A**

Output

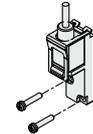
A	NPN open collector
B	PNP open collector

Pressure sensor assembly (With 2 mounting screws)

25A-ZK2 - PS 1 **- A**

Rated pressure range

1	0 to -101 kPa, Output: 1 to 5 V, Accuracy: ± 2% F.S.
3	-100 to 100 kPa, Output: 1 to 5 V, Accuracy: ± 2% F.S.



High-noise reduction silencer case assembly

ZK2 - SC3 - 4 - A

Applicable nozzle size

4	For nozzle size 07, 10
6	For nozzle size 12, 15

Release lever (10 pcs. per set)

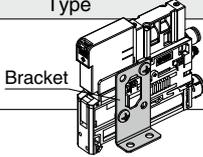
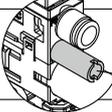
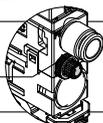
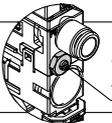
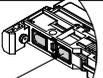
ZK2 - RL1 - A

Round lock (10 pcs. per set)

ZK2 - LN1 - A

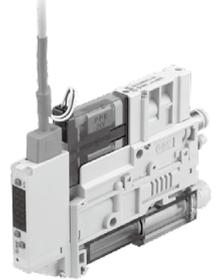
25A-ZK2□A Series

Optional Specifications/Functions/Applications

Symbol	Type	Function/Application
B	Mounting bracket for single unit (nuts and bolts are included)  Bracket	· Use when a single unit is mounted to the floor in an upright position is requested. If only ordering the bracket, the product number is as follows: 25A-ZK2-BK1-A (includes nuts and bolts).
D	With individual release pressure supply (PD) port (M3)  PD port	· Use when supply pressure for vacuum release is individually requested.
E	Screwdriver operation type long lock nut  Screwdriver operation type long lock nut	· Used when the needle adjustment operation is difficult
J	Vacuum break flow adjusting needle Round lock nut  Lock nut	· Thicker than standard hexagon type. More suitable for hand tightening. · Round lock nut improves operability when the port exhaust type is used.
K	Screwdriver operation type  Vacuum break flow adjusting needle	· Slotted type improves fine adjustment performance when the port exhaust type is used.
W	With exhaust interference prevention valve  Exhaust interference prevention valve	· When ejectors are operated individually, exhausted air may flow backward from the V port of ejectors that are turned off. Exhaust interference prevention valve prevents backflow.

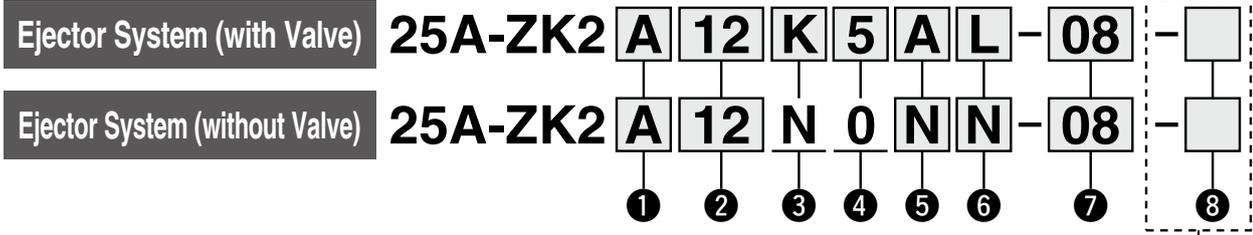
Vacuum Unit

25A-ZK2 Series



How to Order Single Unit

The ZK2 series has been remodeled. Click [here](#) for details.



Remains blank when no option is selected.

① System/Body type

Symbol	System	Body type	Exhaust type
A	Ejector system	Single unit	Silencer exhaust
B			Port exhaust*1
G			High-noise reduction silencer exhaust

With silencer

*1 Port size of exhaust port: $\phi 8$ (Metric)

③ Combination of supply valve and release valve*3

Symbol	Supply valve	Release valve
*5 K	N.C.	N.C.
J	N.C.	None
R	Self-holding release valve linked*4	N.C.
N	None	None

*3 Only non-locking type is available for the manual override for "K," "J," and "R."
 *4 Self-holding type maintains vacuum by instantaneous energization (20 ms or more). Stopping the vacuum turns on the release valve. (signal to stop vacuum not needed)
 *5 When the digital pressure switch for vacuum with energy saving function is selected for ⑤, select "K" for ③ Combination of supply valve and release valve.

② Nominal nozzle size

Symbol	System	Nominal size
07	Ejector system*2	$\phi 0.7$
10		$\phi 1.0$
12		$\phi 1.2$
15		$\phi 1.5$

*2 Standard supply pressure for nozzle size
 07 to 12: 0.35 MPa
 15: 0.4 MPa

④ Rated voltage*6

Symbol	Voltage
5	24 VDC
6	12 VDC
0	When ③ is "N"

*6 Rated voltage for the supply and release valve

⑤ Pressure sensor/Digital pressure switch for vacuum specifications

Symbol	Type	Pressure range [kPa]	Specifications
P	Pressure sensor	0 to -101	Analog output 1 to 5 V
T		-100 to 100	Analog output 1 to 5 V
A	Digital pressure switch for vacuum	0 to -101	NPN Unit selection function*7
B			2 outputs SI unit only*8
C			PNP Unit selection function*7
D		2 outputs SI unit only*8	
E		-100 to 100	NPN Unit selection function*7
F			2 outputs SI unit only*8
H	PNP Unit selection function*7		
J	2 outputs SI unit only*8		
K	Digital pressure switch for vacuum with energy saving function*9	-100 to 100	NPN Unit selection function*7
Q			1 output SI unit only*8
R			PNP Unit selection function*7
S	1 output SI unit only*8		
N	Without pressure sensor/ Digital pressure switch for vacuum		

*7 The Unit selection function is not available in Japan due to the New Measurement Law.
 *8 Fixed unit: kPa
 *9 When "K," "Q," "R," or "S" is selected, select "K" for ③ Combination of supply valve and release valve. Select "W" or "L3" for ⑥.

Manifold type is not available.



- PV: Air pressure supply port/Port for vacuum source (Vacuum pump)
- PS: Pilot pressure supply port ● PD: Individual release pressure supply port
- V: Vacuum port ● EXH: Exhaust port ● PE: Pilot pressure exhaust port

6 Supply valve/Release valve/Digital pressure switch for vacuum connector specifications

Symbol	3 For supply valve/release valve*10		5 Lead wire with connector for pressure switch/sensor*13	Images
	Connector type	Lead wire with connector		
L	L-type plug connector	○*11	○*14	
L1		×*12	○*14	
L2		○*11	×*15	
L3		×*12	×*15	
W		With lead wire for switch with energy saving function		
Y	Non-valve (without supply/release valve)		○*14	
Y1	When "N" is selected for 3		×	
N	When "N" is selected for both 3 and 5 (without supply/release valve, without switch, pressure sensor)			

- *10 Solenoid valve with light/surge voltage suppressor
- *11 The standard lead wire length for the solenoid valve is 300 mm.
- *12 For lead wire lengths other than the standard, select "L1 or L3," and order a connector assembly with the desired length. (Refer to page 143.)
- *13 The standard lead wire length for the pressure sensor is 3 m. The standard length for the lead wire with connector for the vacuum pressure switch and the lead wire length for the switch with energy saving function is 2 m.
- *14 Select "L," "L1," or "Y" when the pressure sensor (P, T) is selected for 5 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.
- *15 Select when no vacuum pressure switch, pressure sensor, or vacuum pressure switch with connector without a lead wire is used.

Single Unit and Options*22

1 System/Body type	2 Nominal nozzle size	3 Combination of supply valve and release valve	4 Rated voltage	5 Pressure sensor/digital pressure switch for vacuum specifications	6 Supply valve/release valve/digital pressure switch for vacuum connector specifications	7 Vacuum (V) port	8 Optional specifications
A/B/G	07 10 12 15	K	5 6	P/T	L/L1	06 08	B/D/J/K/W
				A/B/C/D/E/F/H/J	L/L1/L2/L3		
				N	L2/L3		
		K/Q/R/S		L3/W			
		P/T		L/L1			
		A/B/C/D/E/F/H/J		L/L1/L2/L3			
	R	N	L2/L3				
			P/T	L/L1			
			A/B/C/D/E/F/H/J	L/L1/L2/L3			
	J	N	L2/L3				
			P/T	Y			
			A/B/C/D/E/F/H/J	Y/Y1			
N	0	N					
		P/T					
		A/B/C/D/E/F/H/J					

*22 When "J" or "N" is selected for 3 Combination of Supply Valve and Release Valve, "D," "J," and "K" cannot be selected for 8 Optional Specifications/Functions/Applications.

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

* Refer to the **Web Catalog** when mounting single unit to DIN rail.

7 Vacuum (V) port*16

Symbol	Type	Port size	Image
06	Metric size	ø6 One-touch fitting	
08		ø8 One-touch fitting	

*16 Supply (PV) port size of single unit: ø6

8 Optional Specifications*17

Symbol	Type
Nil	Without option
B	With one bracket for mounting a single unit (A mounting screw is attached.)
D	With individual release pressure supply (PD) port*18
J	Vacuum break flow adjusting needle Round lock nut type
K	Vacuum break flow adjusting needle Screwdriver operation type
W	With exhaust interference prevention valve*19, *20, *21

- *17 When more than one option is selected, list the option symbols in an alphabetical order. Example) -BJ
- *18 Only M3 is available for PD port size. Use One-touch fittings or barb fittings with O.D. ø6.2 or less for piping. (Recommended fitting: M-3AU-4)
- *19 To prevent backflow of the exhaust air, 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.
- *20 When "J" is selected for 3 Combination of supply valve and release valve and "W" (exhaust interference prevention valve type) is selected for 8 Optional specifications/Functions/Applications, install a release valve or vacuum breaker.
- *21 When "K," "Q," "R," or "S" is selected for 5 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."

* The 25A- series specifications and dimensions are the same as those of the standard model.

[Click here for details.](#)

25A-ZK2 Series

Replacement Parts/How to Order

■ Valve assembly

25A - ZK2 - VA **A** **K** **5** **L** - A

① ② ③ ④

① Applicable system

A	For ejector system
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② Valve type

K	Supply valve N.C., Release valve N.C.
R	Supply valve, self-holding type (Linked to release valve)
J	Supply valve only (Single)

③ Rated voltage

5	24 VDC
6	12 VDC

④ Lead wire entry direction

L	L-type plug connector with lead wire (Individual wiring)
LO	L-type plug connector, without connector

Select the ZK2-VAAK□LO-A for a switch with energy saving function. This assembly does not include special cable assembly for a switch with energy saving function.

■ Vacuum pressure switch assembly

25A - ZK2 - ZS **E** **A** **M** **G** - A

① ② ③ ④

① Rated pressure range and function

E	0 to -101 kPa	Vacuum pressure switch	Open collector 2 outputs
F	-100 to 100 kPa		
V	-100 to 100 kPa	Pressure switch with energy saving function	Open collector 1 output

② Output specifications

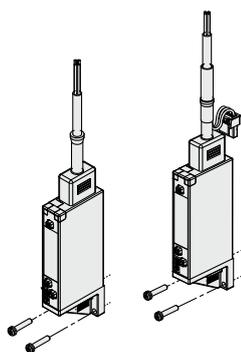
A	NPN
B	PNP

③ Unit specifications

Nil	Unit selection function*1
M	SI unit only*2

*1 The unit selection function is not available in Japan due to the Measurement Law.

*2 Fixed unit: kPa



④ Lead wire with connector

Nil	None	
G	With lead wire	When ① is E or F...For vacuum pressure switch, Lead wire with connector (Length 2 m)
		When ① is V...For switch with energy saving function, Lead wire with connector (Length 2 m)

■ Connector assembly

ZK2 - LV **W** □ - A

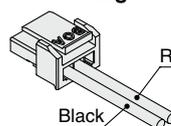
Applicable valve type

W	Valve type K/R (With supply valve and release valve)
S	Valve type J (Supply valve only)

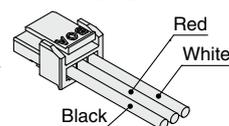
Lead wire length

Nil	300 mm
6	600 mm
10	1000 mm
20	2000 mm
30	3000 mm

For single



For double



■ Lead wire with connector for vacuum pressure switch

(When individual lead wire is necessary, order with the part number below.)

● Lead wire with connector for vacuum pressure switch

ZS - 39 - 5G

● Lead wire with connector for switch with energy saving function

ZK2 - LW **A 20 - A**

Output specifications

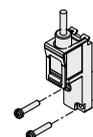
A	NPN open collector
B	PNP open collector

■ Pressure sensor assembly

25A - ZK2 - PS **1** - A

Rated pressure range and specifications

1	0 to -101 kPa, Output: 1 to 5 V, Accuracy: ±2% F.S. or less
3	-100 to 100 kPa, Output: 1 to 5 V, Accuracy: ±2% F.S. or less



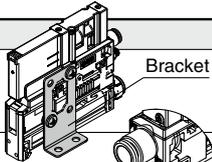
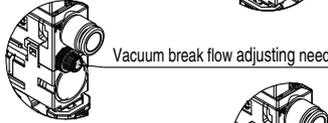
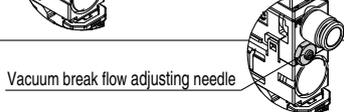
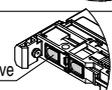
■ High-noise reduction silencer case assembly

ZK2 - SC3 - **4** - A

Exhaust port size

4	ø4	For nozzle size 07, 10
6	ø6	For nozzle size 12, 15

Optional Specifications/Functions/Applications

Symbol	Type	Function/Application
B	With one bracket for mounting a single unit (Mounting screw is attached.) 	<ul style="list-style-type: none"> Use when a single unit is mounted to the floor in an upright position is requested. (The part number for ordering only a bracket is 25A-ZK2-BK1-A. Bolt nuts are included.)
D	With individual release pressure supply (PD) port 	<ul style="list-style-type: none"> Use when supply pressure for vacuum release which pressure is different from the ejector supply pressure is requested.
J	Vacuum break flow adjusting needle Round lock nut type 	<ul style="list-style-type: none"> Thicker than standard hexagon type. More suitable for hand tightening. Round lock nut improves operability when the exhaust port type is used.
K	Vacuum break flow adjusting needle Screwdriver operation type 	<ul style="list-style-type: none"> Slotted type improves fine adjustment performance when the exhaust port type is used.
W	With exhaust interference prevention valve 	<ul style="list-style-type: none"> When ejectors are operated individually, exhausted air may flow backward from the V port of ejectors that are turned off. Exhaust interference prevention valve prevents backflow.

Directional Control Valves

Air Cylinders

Related Products

Rotary Actuators

Air Grippers

Vacuum Equipment

Air Preparation Equipment

Clean Air Filters

Modular F.R.L./Pressure Control Equipment

Fittings/Flow Control Equipment

Detection Switches

Fluid Control Equipment

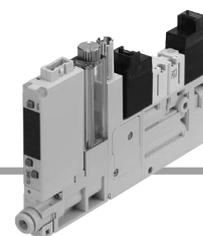
Electric Actuators

Auto Switches



[Option]
* CE-compliant:
For DC only.

Space Saving Vacuum Ejector 25A-ZQ Series



How to Order

Ejector Unit

25A-ZQ1 05 1U - K1 5 L - EA G - -

• Series compatible with secondary batteries

① Nozzle nominal size

05	ø0.5
07	ø0.7
10	ø1.0

② Exhaust type

1U	With silencer for single unit
3M	With silencer for manifold

③ Solenoid valve combination (Refer to Table (1).)

Symbol	Supply valve	Vacuum release valve
K1	Normally closed	Normally closed
K2*1	Normally open	Normally closed
J1	Normally closed	None
J2*1	Normally open	None
Q1	Latching positive common	Normally closed
Q2	Latching positive common	None
N1	Latching negative common	Normally closed
N2	Latching negative common	None

*1 In cases when "K2" or "J2" (supply valve normally open) is selected for the solenoid valve combination, when vacuum is stopped for long periods of time (10 minutes or more), do not continue to energize the supply valve, and shut off the air supply.

④ Pilot valve (Refer to Table (1).)

Nil	Standard (DC: 1 W)*2
Y	DC low wattage type (0.5 W)*2

*2 Avoid energizing the solenoid valve for long periods of time. (Refer to Design and Selection on Specific Product Precautions.)

⑤ Solenoid valve rated voltage (Refer to Table (1).)

		CE-compliant
1*3	100 VAC (50/60 Hz)	—
2*3	200 VAC (50/60 Hz)	—
3*3	110 VAC (50/60 Hz)	—
4*3	220 VAC (50/60 Hz)	—
5	24 VDC	●
6	12 VDC	●

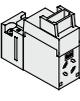
*3 CE-compliant products are not available for "1," "2," "3" and "4."

Table (1) Combination of Solenoid Valve, Pilot Valve and Power Supply Voltage

Combination no.	Solenoid valve combination symbol	Pilot valve symbol	Applicable power supply voltage [V]					
			100 AC	200 AC	110 AC	220 AC	24 DC	12 DC
①	K1	Nil	—	—	—	—	●	●
②	K1	Y	—	—	—	—	●	●
③	K2	Nil	—	—	—	—	●	●
④	J1	Nil	●	●	●	●	●	●
⑤	J1	Y	—	—	—	—	●	●
⑥	J2	Nil	—	—	—	—	●	●
⑦	Q1	Nil	—	—	—	—	●	●
⑧	Q2	Nil	●	●	●	●	●	●
⑨	N1	Nil	—	—	—	—	●	●
⑩	N2	Nil	—	—	—	—	●	●

* Combinations ① to ⑩ in the above table are the only possible options.

⑥ Electrical entry

L	L-type plug connector, with 0.3 m lead wire, with light/surge voltage suppressor	
LO	L-type plug connector, without connector, with light/surge voltage suppressor	
G	Grommet, with 0.3 m lead wire (Latching/AC type: Not applicable)	

⑦ Manual override*4

Nil	Non-locking push type Latching type: Push-locking type
B	Locking type (Q1/Q2/N1/N2: Not applicable)

*4 Latching type supply valve: Available in "Nil" only. In this case, the supply valve and release valve come with a push-locking type.

⑧ Vacuum pressure switch suction filter*5

EA	0 to -101 kPa/NPN open collector 2 outputs, with suction filter
EB	0 to -101 kPa/PNP open collector 2 outputs, with suction filter
EC	0 to -101 kPa/NPN open collector 1 output + analog voltage, with suction filter
EE	0 to -101 kPa/PNP open collector 1 output + analog voltage, with suction filter
FA	100 to -100 kPa/NPN open collector 2 outputs, with suction filter
FB	100 to -100 kPa/PNP open collector 2 outputs, with suction filter
FC	100 to -100 kPa/NPN open collector 1 output + analog voltage, with suction filter
FE	100 to -100 kPa/PNP open collector 1 output + analog voltage, with suction filter
F	Suction filter only

*5 The filter included in this product is of a simple type, and will become clogged quickly in environments with high quantities of dust or particulates. Please make additional use of an air suction filter of the ZFA, ZFB or ZFC series.

⚠ Warning

The filter case of this suction filter is made of nylon. Contact with alcohol or similar chemicals may cause it to be damaged. Also, do not use the filter when these chemicals are present in the atmosphere.

⑪ Check valve*8

Nil	None
K	With check valve

*8 The check valve has a function to prevent the exhaust air from the silencer overflowing to the vacuum port side when a manifold is used. However, depending on usage conditions, it does not always suppress air overflow to the desired extent. During usage, please inspect thoroughly with actual machine. Also, in order to completely prevent the overflow of exhaust air, leave plenty of space between the check valve unit and adjacent ejector to avoid interference from the ejector's exhaust unit.

⚠ Warning

- ① Cannot be used for vacuum retention.
- ② Use a release valve. (Without a release valve, a workpiece may not be released.)

⑫ Fitting (V port)

Symbol	Applicable tubing O.D.
0	Without fitting (M5 x 0.8)

⑬ Fitting (P port)

Symbol	Applicable tubing O.D.	Object spec.
Nil	Without port	Manifold
0	Without fitting (M5 x 0.8)	Single unit

⑭ CE-compliant

Nil	—
Q	CE-compliant

* CE-compliant: For DC only.

⑨ Vacuum pressure switch unit specifications

Nil	With unit switching function*6
M	Fixed SI unit*7
P	With unit switching function*6 (Initial value psi)

*6 Under the New Measurement Law, sales of switches with the unit switching function are not allowed for use in Japan.

*7 Fixed unit: kPa

⑩ Vacuum pressure switch lead wire specifications

Nil	Without connector
G	Lead wire with connector (Lead wire length 2 m) With connector cover

* The 25A- series specifications and dimensions are the same as those of the standard model.

[Click here for details.](#)

Directional Control Valves
Air Cylinders
Related Products
Rotary Actuators
Air Grippers
Vacuum Equipment
Air Preparation Equipment
Clean Air Filters
Modular P.R.L. Pressure Control Equipment
Fittings/Flow Control Equipment
Detection Switches
Fluid Control Equipment
Electric Actuators
Auto Switches

How to Order

Manifold 25A – ZZQ1 **07** – **B S C**

Number of stations*1

01	1 station
02	2 stations
⋮	⋮
08	8 stations

*1 Number of stations varies according to nozzle nominal size during simultaneous operation.

Maximum Number of Stations in Simultaneous Operation

Nozzle nominal size	Maximum number of stations in simultaneous operation
ø0.5	8 stations
ø0.7	6 stations
ø1.0	4 stations

Air pressure supply (P) port position

B	Both sides
----------	------------

Exhaust

S	With silencers (Both sides)
----------	-----------------------------

Vacuum release pressure supply port (PD port)

B	None (Release pressure is supplied from the P port.)
C	Provided (Air can be alternatively supplied from the P port.)

* The 25A- series specifications and dimensions are the same as those of the standard model.

[Click here for details.](#)

How to Order

Solenoid valve

Actuation

1	Normally closed
2	Normally open

25A-ZQ1-VQ1 1 0 **5 L**

25A-ZQ1-VQ1 2 0 **5 L**

Pilot valve

Nil	Standard (DC: 1 W)
Y	DC low wattage type (0.5 W) * AC type: Not applicable
L	Latching positive common
N	Latching negative common

Solenoid valve rated voltage

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3	110 VAC (50/60 Hz)
4	220 VAC (50/60 Hz)
5	24 VDC
6	12 VDC

Actuation

Nil	Standard (1 W)
-----	----------------

Solenoid valve rated voltage

5	24 VDC
6	12 VDC

Manual override*1

Nil	Non-locking push type
B	Latching type: Push-locking type
	Locking type

*1 Latching type: Available in "Nil" only

Electrical entry*2

L	L-type plug connector, with 0.3 m lead wire	
LO	L-type plug connector, without connector	
G	Grommet, with 0.3 m lead wire (Latching/AC type: Not applicable)	

*2 Mounting screws are attached.

Vacuum pressure switch

25A-ZQ1-ZS **- A**

Vacuum pressure switch specifications

EA	0 to -101 kPa/NPN open collector 2 outputs, with suction filter
EB	0 to -101 kPa/PNP open collector 2 outputs, with suction filter
EC	0 to -101 kPa/NPN open collector 1 output + analog voltage, with suction filter
EE	0 to -101 kPa/PNP open collector 1 output + analog voltage, with suction filter
FA	100 to -100 kPa/NPN open collector 2 outputs, with suction filter
FB	100 to -100 kPa/PNP open collector 2 outputs, with suction filter
FC	100 to -100 kPa/NPN open collector 1 output + analog voltage, with suction filter
FE	100 to -100 kPa/PNP open collector 1 output + analog voltage, with suction filter

Vacuum pressure switch unit specifications

Nil	With unit switching function*1
M	Fixed SI unit*2
P	With unit switching function*1 (Initial value psi)

*1 Under the New Measurement Law, sales of switches with the unit switching function are not allowed for use in Japan.
*2 Fixed unit: kPa

Vacuum pressure switch lead wire specifications

Nil	Without connector
G	Lead wire with connector (lead wire length 2 m) With connector cover

Fitting (V port)

Symbol	Applicable tubing O.D.
0	Without fitting (M5 x 0.8)

Check valve*3

Nil	None
K	With check valve

*3 The check valve has a function to prevent the exhaust air from the silencer overflowing to the vacuum port side when a manifold is used, but it is incapable of completely preventing overflow. During usage, please inspect thoroughly with actual machine. Also, in order to completely prevent the overflow of exhaust air, leave plenty of space between the check valve unit and adjacent ejector to avoid interference from the ejector's exhaust unit.

Warning

① Cannot be used for vacuum retention.
② Use a vacuum release valve. (Without a vacuum release valve, the workpiece may not be released.)

Lead wire with connector part no.	Note
ZS-39-5G	Lead wire length 2 m (With connector cover)

* The 25A- series specifications and dimensions are the same as those of the standard model.

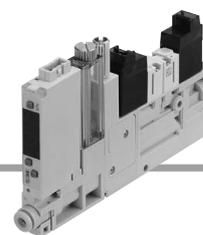
[Click here for details.](#)



[Option]
* CE-compliant:
For DC only.

Space Saving Vacuum Pump System

25A-ZQ Series



How to Order

Vacuum pump unit

25A-ZQ1000 **U**-**K1** **5** **L** -**EA** **G** - - -

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

• Series compatible with secondary batteries

① Body type

U	For single unit
M	For manifold

② Solenoid valve combination (Refer to Table (1).)

Symbol	Supply valve	Vacuum release valve
K1	Normally closed	Normally closed
K2 *1	Normally open	Normally closed
J1	Normally closed	None
J2 *1	Normally open	None
Q1	Latching positive common	Normally closed
Q2	Latching positive common	None
N1	Latching negative common	Normally closed
N2	Latching negative common	None

⚠ The air in the adsorption section of this product is not released to the atmosphere at the vacuum suspension state.
As for "K1," "K2," "Q1" and "N1," use the vacuum release valve when a workpiece is detached.
Concerning "J1," "J2," "Q2" and "N2," devise the circuit for the vacuum release additionally when a workpiece is detached.

*1 In cases when "K2" or "J2" (supply valve normally open) is selected for the solenoid valve combination, when vacuum is stopped for long periods of time (10 minutes or more), do not continue to energize the supply valve, and shut off the air supply.

③ Pilot valve (Refer to Table (1).)

Nil	Standard (DC: 1 W)*2
Y	DC low wattage type (0.5 W)*2

*2 Avoid energizing the solenoid valve for long periods of time. (Refer to Specific Product Precautions; Caution on Design and Selection.)

④ Solenoid valve rated voltage (Refer to Table (1).)

		CE-compliant
1 *3	100 VAC (50/60 Hz)	—
2 *3	200 VAC (50/60 Hz)	—
3 *3	110 VAC (50/60 Hz)	—
4 *3	220 VAC (50/60 Hz)	—
5	24 VDC	●
6	12 VDC	●

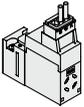
*3 CE-compliant products are not available for "1," "2," "3" and "4."

Table (1) Combination of Solenoid Valve, Pilot Valve and Rated Voltage

Combination no.	Solenoid valve combination symbol	Pilot valve symbol	Applicable power supply voltage [V]					
			100 AC	200 AC	110 AC	220 AC	24 DC	12 DC
①	K1	Nil	—	—	—	—	●	●
②	K1	Y	—	—	—	—	●	●
③	K2	Nil	—	—	—	—	●	●
④	J1	Nil	●	●	●	●	●	●
⑤	J1	Y	—	—	—	—	●	●
⑥	J2	Nil	—	—	—	—	●	●
⑦	Q1	Nil	—	—	—	—	●	●
⑧	Q2	Nil	●	●	●	●	●	●
⑨	N1	Nil	—	—	—	—	●	●
⑩	N2	Nil	—	—	—	—	●	●

* Combinations ① to ⑩ in the above table are the only possible options.

⑤ Electrical entry

L	L-type plug connector, with 0.3 m lead wire, with light/surge voltage suppressor	
LO	L-type plug connector, without connector, with light/surge voltage suppressor	
G	Grommet, with 0.3 m lead wire (Latching/AC type: Not applicable)	

⑥ Manual override*4

Nil	Non-locking push type Latching type: Push-locking type
B	Locking type (Q1/Q2/N1/N2: Not applicable)

*4 Latching type supply valve: Available in "Nil" only. In this case, the supply valve and release valve come with a push-locking type.

⑦ Vacuum pressure switch suction filter*5

EA	0 to -101 kPa/NPN open collector 2 outputs, with suction filter
EB	0 to -101 kPa/PNP open collector 2 outputs, with suction filter
EC	0 to -101 kPa/NPN open collector 1 output + analog voltage, with suction filter
EE	0 to -101 kPa/PNP open collector 1 output + analog voltage, with suction filter
FA	100 to -100 kPa/NPN open collector 2 outputs, with suction filter
FB	100 to -100 kPa/PNP open collector 2 outputs, with suction filter
FC	100 to -100 kPa/NPN open collector 1 output + analog voltage, with suction filter
FE	100 to -100 kPa/PNP open collector 1 output + analog voltage, with suction filter
F	Suction filter only

*5 The filter included in this product is of a simple type, and will become clogged quickly in environments with high quantities of dust or particulates. Please make additional use of an air suction filter of the ZFA, ZFB or ZFC series.

⚠ Warning

The filter case of this suction filter is made of nylon. Contact with alcohol or similar chemicals may cause it to be damaged. Also, do not use the filter when these chemicals are present in the atmosphere.

⑩ Fitting (V port)*8

Symbol	Applicable tubing O.D.
0	Without fitting (M5 x 0.8)

⑪ Fitting (PS / PV port)*8

Symbol	Applicable tubing O.D.	Part no.	Object spec.
Nil	Without port	—	Manifold
0	Without fitting (M5 x 0.8)	—	Single unit

⑫ CE-compliant

Nil	—
Q	CE-compliant

* CE-compliant: For DC only.

*8 For filter only (Without vacuum pressure switch)
When neither V port fitting nor PS/PV port fitting are needed, enter nothing or -00 in the dotted line "How to Order".

⑧ Vacuum pressure switch unit specifications

Nil	With unit switching function*6
M	Fixed SI unit*7
P	With unit switching function*6 (Initial value psi)

*6 Under the New Measurement Law, sales of switches with the unit switching function are not allowed for use in Japan.

*7 Fixed unit: kPa

⑨ Vacuum pressure switch lead wire specifications

Nil	Without connector
G	Lead wire with connector (Lead wire length 2 m) With connector cover

* The 25A- series specifications and dimensions are the same as those of the standard model.

[Click here for details.](#)

Directional Control Valves
 Air Cylinders
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 Air Preparation Equipment
 Clean Air Filters
 Modular P.R.L. Pressure Control Equipment
 Fittings/Flow Control Equipment
 Detection Switches
 Fluid Control Equipment
 Electric Actuators
 Auto Switches

How to Order

Manifold 25A-ZZQ1 08 - □ O □

Number of stations ●

01	1 station
02	2 stations
⋮	⋮
08	8 stations

Vacuum pressure supply port (PV port)
Port location
(Refer to Table (1).)

L	Left side
R	Right side

Table (1) Air Pressure Supply Port Location on the Manifold

PD port	Manifold Port location	Left			Right		
		PS	PV	PD	PS	PV	PD
B	L (Left side)	—	●	—	●*1	—	—
	R (Right side)	●*1	—	—	—	●	—
C	L (Left side)	—	●	●	●	—	●
	R (Right side)	●	—	●	—	●	●

*1 The position of each port is shown as right and left sides viewed from the front side of the vacuum port.

Release pressure is commonly supplied from the PS port.

* PS: Pilot pressure supply port, PV: Vacuum pressure supply port, PD: Release pressure supply port

Release pressure supply port (PD port) ●

B	None (Release pressure is supplied from the PS port.)
C	Provided (Air can be alternatively supplied from the PS port.)

* The 25A- series specifications and dimensions are the same as those of the standard model.

[Click here for details.](#)

How to Order

Solenoid valve

Actuation

1	Normally closed
2	Normally open

Pilot valve

Nil	Standard (DC: 1 W)
Y	DC low wattage type (0.5 W) * AC type: Not applicable
L	Latching positive common
N	Latching negative common

Solenoid valve rated voltage

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3	110 VAC (50/60 Hz)
4	220 VAC (50/60 Hz)
5	24 VDC
6	12 VDC

Manual override*1

Nil	Non-locking push type Latching type: Push-locking type
B	Locking type

*1 Latching type: Available in "Nil" only

Electrical entry*2

L	L-type plug connector, with 0.3 m lead wire	
LO	L-type plug connector, without connector	
G	Grommet, with 0.3 m lead wire (Latching/AC type: Not applicable)	

*2 Mounting screws are attached.

Solenoid valve rated voltage

5	24 VDC
6	12 VDC

Ordering Example:
 25A-ZQ1-VQ1 1 0 [] - 5 L []
 25A-ZQ1-VQ1 2 0 [] - 5 L []

Vacuum pressure switch

Vacuum pressure switch specifications

EA	0 to -101 kPa/NPN open collector 2 outputs, with suction filter
EB	0 to -101 kPa/PNP open collector 2 outputs, with suction filter
EC	0 to -101 kPa/NPN open collector 1 output + analog voltage, with suction filter
EE	0 to -101 kPa/PNP open collector 1 output + analog voltage, with suction filter
FA	100 to -100 kPa/NPN open collector 2 outputs, with suction filter
FB	100 to -100 kPa/PNP open collector 2 outputs, with suction filter
FC	100 to -100 kPa/NPN open collector 1 output + analog voltage, with suction filter
FE	100 to -100 kPa/PNP open collector 1 output + analog voltage, with suction filter

Vacuum pressure switch unit specifications

Nil	With unit switching function*1
M	Fixed SI unit*2
P	With unit switching function*1 (Initial value psi)

*1 Under the New Measurement Law, sales of switches with the unit switching function are not allowed for use in Japan.
 *2 Fixed unit: kPa

Vacuum pressure switch lead wire specifications

Nil	Without connector
G	Lead wire with connector (Lead wire length 2 m) With connector cover

Fitting (V port)

Symbol	Applicable tubing O.D.
0	Without fitting (M5 x 0.8)

Check valve*3

Nil	None
K	With check valve

*3 The check valve has a function to prevent the exhaust air from the silencer overflowing to the vacuum port side when a manifold is used, but it is incapable of completely preventing overflow. During usage, please inspect thoroughly with actual machine. Also, in order to completely prevent the overflow of exhaust air, leave plenty of space between the check valve unit and adjacent ejector to avoid interference from the ejector's exhaust unit.

Warning

- Cannot be used for vacuum retention.
- Use a vacuum release valve. (Without a vacuum release valve, the workpiece may not be released.)

Lead wire with connector part no. Note

ZS-39-5G	Lead wire length 2 m (With connector cover)
----------	---

Ordering Example:
 25A-ZQ1-ZS [] [] [] [] - [] - A

* The 25A- series specifications and dimensions are the same as those of the standard model.

[Click here for details.](#)

Vacuum Regulator

25A-IRV10/20 Series

RoHS

How to Order

Standard connections

25A-IRV 20 - [] C08 [] []

Series compatible with secondary batteries

Body size

10	Max. flow 140 L/min (ANR)
20	Max. flow 240 L/min (ANR)

Fittings

Nil	Straight
L	Elbow

Connection tubing O.D.

Symbol	Tubing O.D.	IRV10	IRV20
C06	Metric	ø6	●
C08		ø8	●
C10		ø10	—

Accessory ② [Supplied with product]

Nil	None*1
GN	Gauge nut assembly*2

*1 Two plug nuts are mounted on the gauge port. When the Rc1/8 port is required, please order the optional gauge nut assembly P601010-130 separately.

*2 One plug nut, one gauge nut (Rc1/8), and two clips are included. The pressure gauge and digital pressure switch are not included.

Accessory ① [Supplied with product]

Nil	None
B	With bracket

Single sided connections

25A-IRV 20 A - [] C08 [] []

Series compatible with secondary batteries

Body size

10	Max. flow 140 L/min (ANR)
20	Max. flow 240 L/min (ANR)

Single sided connections

A	Single sided connections
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Fittings

Nil	Straight
L	Elbow

Connection tubing O.D.

Symbol	Tubing O.D.	IRV10A	IRV20A
C06	Metric	ø6	●
C08		ø8	●
C10		ø10	—

Accessory ② [Supplied with product]

Nil	None*1
GN	Gauge nut assembly*2

*1 Two plug nuts are mounted on the gauge port. When the Rc1/8 port is required, please order the optional gauge nut assembly P601010-130 separately.

*2 One gauge nut (Rc1/8) and one clip are included. The pressure gauge and digital pressure switch are not included.

Accessory ① [Supplied with product]

Nil	None
B	With bracket

* This product cannot be used in environments containing chemical agents such as hydrofluoric acid, etc.

* The 25A- series specifications and dimensions are the same as those of the standard model.

[Click here for details.](#)