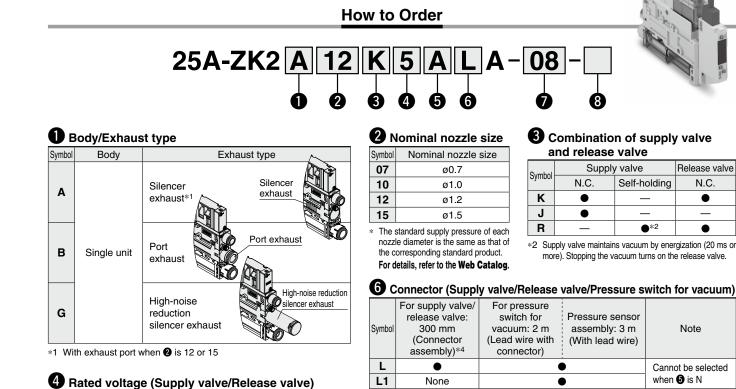
# Ejector System Vacuum Unit 25A-ZK2 A Series RoHS

Single Unit Ejector + With Valve + Without Energy Saving Function



	• • • • • •
Symbol	Voltage
5	24 VDC
6	12 VDC

#### • Pressure switch for vacuum/Pressure sensor

			_	Specif		cifications
Symbol		Туре	Pressure range [kPa]	NPN	PNP	With unit selection
				2 outputs		function*3
	Α				—	•
	В	for	0 to -101	•	—	None (SI unit only)
	С	Pressure switch for vacuum	010-101	—	•	•
	D			—		None (SI unit only)
	Е			•	—	•
	F	ISSE	-100 to 100	•	—	None (SI unit only)
	Н	Pre	-100 10 100	—		•
	J	]		—		None (SI unit only)
	Ρ	Pressure	0 to -101			
	Т	sensor	-100 to 100	Analog output 1 to 5 V		
	Ν	Without p	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.

#### 🕖 Vacuum (V) port

Symbol	Vacuum (V) port
06	ø6
08	ø8

*5 When more	e than one optio	n is selected,	list the option	symbols in a	alphabetical order.
(Example -	BJ)				
		1 6111 6	· · /0 D		

None

None

PD port

Lock nut

Screwdriver operation

type long lock nut

Vacuum break

Exhaust interference

prevention valve

flow adjusting needle

\*4 For the connector length other than 300 mm, select L1 or L3, and order the connector

8 Option\*5 (For details on the Function/Application, refer to page 179.)

Туре

Bracke

\*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.

The manifold type is available as a special order.



L2

L3

Symbol

Nil

В

D

Е

J

Κ

w

•

None

Without option Mounting bracket

for single unit

Vacuum break flow adjusting needle

With exhaust

prevention valve

interference

Vacuum break

assembly on page 178 separately.

(nuts and bolts are included)

pressure supply (PD) port (M3)\*6

Screwdriver operation

type long lock nut

Round lock nut

Screwdriver

operation type

With individual release

#### For details, refer to the Web Catalog.

Release valve

N.C.

•

Note

Cannot be selected

Cannot be selected

Note

Cannot be

Cannot be

is J

is J

and K

selected when 3

selected when 6

Can be selected only for the combination of J

When J is selected for 3

install the release valve or

vacuum breaker in the

middle of the vacuum piping.

when **5** is P or T

when 6 is N

Self-holding

•\*2

# Ejector System Vacuum Unit 25A-ZK2 A Series RoHS

Single Unit Ejector + With Valve + With Energy Saving Function

**Control Valves** Directional

Air Cylinders

**Related Products** 

Rotary Actuators

Air Grippers

Equipment

Vacuum

Air Preparation

Equipment

**Air Filters** Clean

Modular F.R.L./ Pressure Control Equipment

Flow Control Equipment/ Fittings

Detection Switches

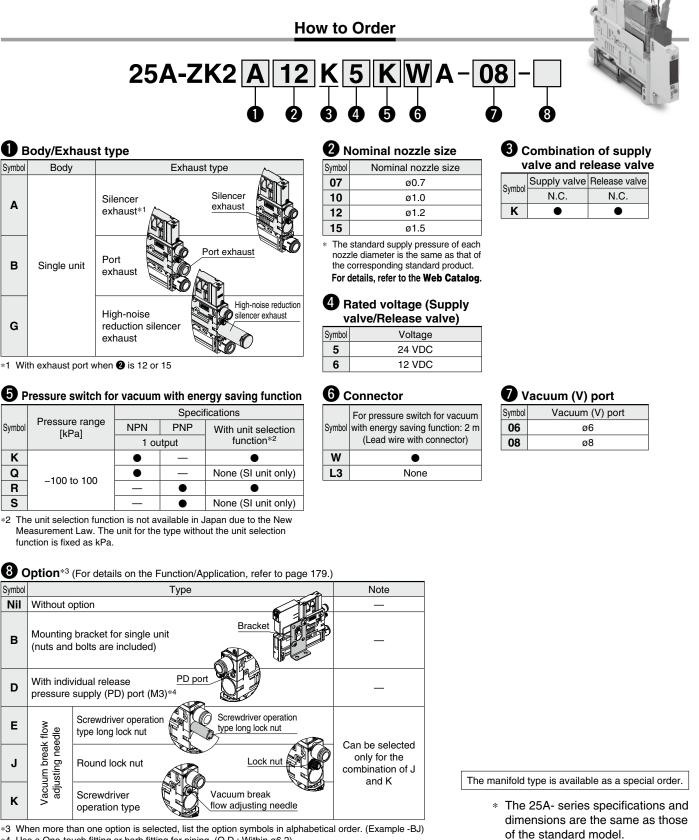
Fluid Control Equipment

**Process Gas** 

Equipment

Actuators Electric

Auto Switches

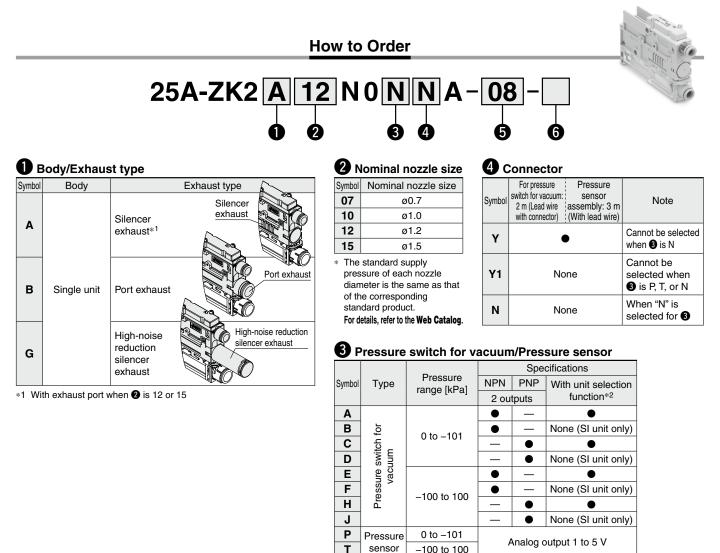


\*4 Use a One-touch fitting or barb fitting for piping. (O.D.: Within ø6.2)



# Ejector System Vacuum Unit 25A-ZK2 A Series RoHS

Single Unit Ejector + Without Valve + Without Energy Saving Function



#### Ν 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.

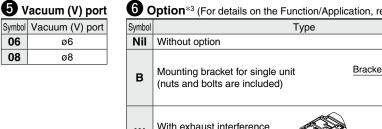
Note

Install the release

valve or vacuum

breaker in the middle

of the vacuum piping.



prevention valve

W

#### **6** Option\*<sup>3</sup> (For details on the Function/Application, refer to page 179.)

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

The manifold type is available as a special order.

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

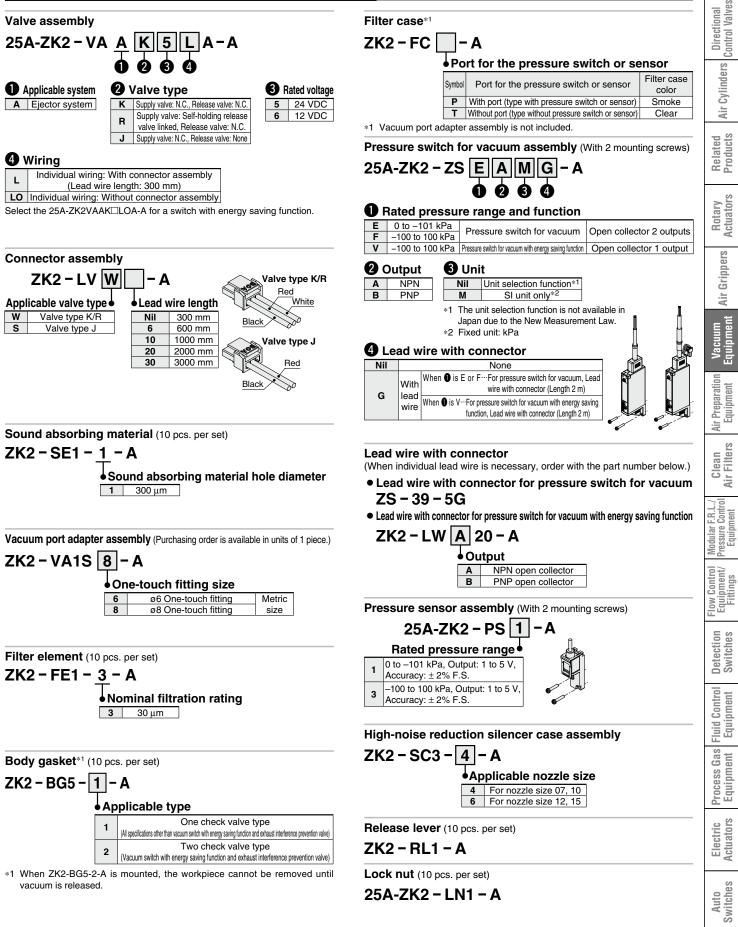
Exhaust interference

prevention valve



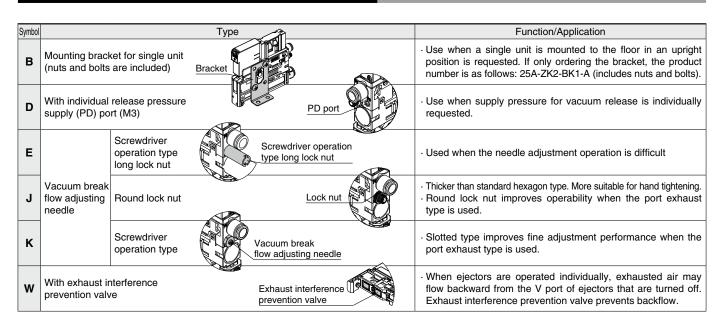
Vacuum Unit 25A-ZK2 A Series





# 25A-ZK2 A Series

#### **Optional Specifications/Functions/Applications**



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



#### Ejector System Compact Vacuum Unit With Energy Saving Function RoHS **4** Series Single Unit Part Number How to Order 25A-ZQ 05 1U A-K15L0 -VA MW-0 0 Series compatible with ി secondary batteries Nominal nozzle size 2 Body type 4 Solenoid valve rated voltage **3** Solenoid valve combination K1 Supply valve (N.C.), Release valve (N.C.) 24 VDC 05 0.5 1U For Single unit 5 0.7 ЗM For Manifold 07 10 1.0 5 Electrical entry 6 Manual override Vacuum pressure switch (With suction filter\*1) L plug connector (Without connector) Nil Symbol Pressure range [kPa] Non-locking push type Output LO With light/surge voltage suppressor VA в Locking slotted type NPN 1 output + Energy saving function -100 to 100 VB PNP 1 output + Energy saving function \*1 The filter used in this product is of a simple type, and will become clogged quickly in environments with high quantities of dust or particulates. Please consider using in combination with an air suction filter of the ZFC series, etc. 8 Unit 9 Lead wire Fitting (V port) Nil\*2 Nil Applicable tubing O.D. With unit switching function Without lead wire with connector Symbol М SI unit only (kPa) Lead wire for switch with energy saving 0 Without fitting (M5 x 0.8) w function (Length: 2 m) (Included)

\*2 Under the New Measurement Act, switches with the unit switching function are not permitted for use in Japan (implemented October 1999).

#### **1** Fitting (P port)

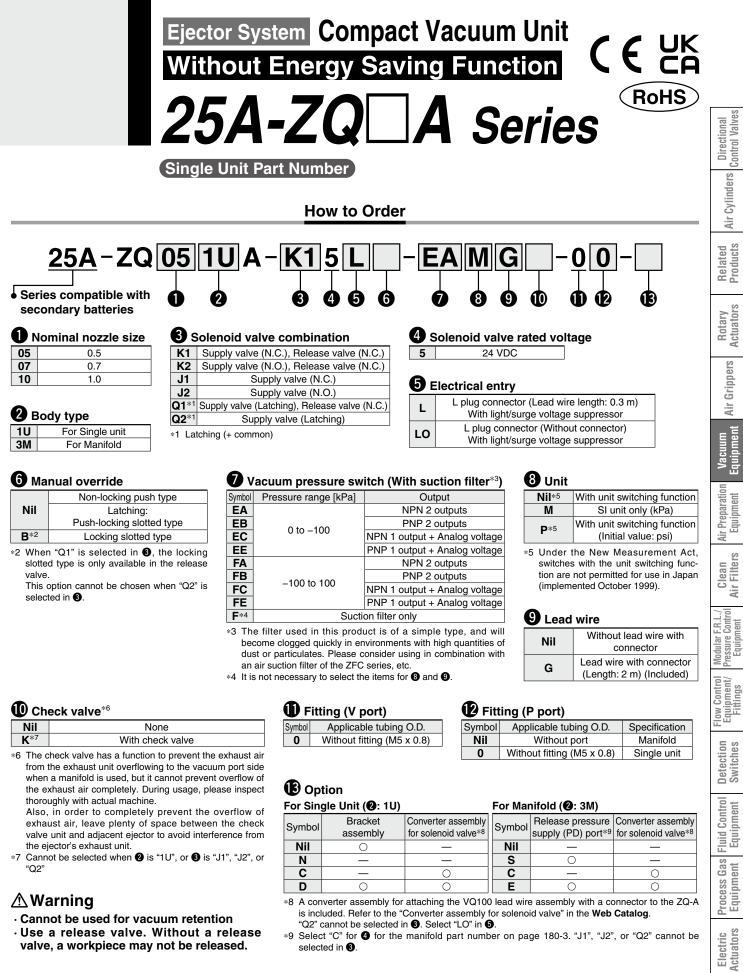
Symbol	Applicable tubing O.D.	Specification
Nil	Without port	Manifold
0	Without fitting (M5 x 0.8)	Single unit

#### Detion

	Bracket for single unit		
	Single unit	Manifold	
Nil	With	Without	
N	Without	Not available	

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

For details, refer to the Web Catalog.



Select "C" for () for the manifold part number on page 180-3. "J1", "J2", or "Q2" cannot be \*Q selected in 3.

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

For details, refer to the Web Catalog.

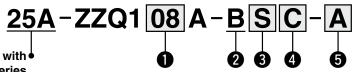


valve, a workpiece may not be released.

Switches Auto

# Ejector System Compact Vacuum Unit 25A-ZQ A Series Manifold Part Number

#### How to Order



Series compatible with secondary batteries

#### Stations<sup>\*1</sup>

	lationo
01	1 station
02	2 stations
:	:
08	8 stations

 \*1 Number of stations varies according to nominal nozzle size during simultaneous operation. (Table 1)

# Table 1. Max. Number of Stations that Can Operate Simultaneously\*2

Nominal nozzle size	Max. number of stations that can operate simultaneously
0.5	8 stations
0.7	6 stations
1.0	4 stations

\*2 For any of the nominal nozzle sizes, the max. number of stations that can be mounted is 8. However, please ensure that the max. number of stations that are operated simultaneously comply with the values above.

<b>2</b> A	ir pressure supply (P) port location
В	Both sides

#### 4 Release pressure supply (PD) port

в	None (Release pressure: Commonly supplied from the P port)		
<b>C</b> *3	Provided (Release pressure: Supplied from the PD port)		

\*3 If the individual unit does not have the energy saving function, select "S" or "E" in () for the single unit part number on page 180-2.

#### **3** Exhaust

_	
S	Silencer exhaust (Both sides)
Ρ	Port exhaust (Both sides)

#### **5** Shipping configuration

Nil	Assembled as a vacuum unit
<b>A</b> *4	Manifold unit only
*4 A se	t of end blocks and the clamp ro

4 A set of end blocks and the clamp rod assembly is included in this manifold unit. (Used for the maintenance of the end block)

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

For details, refer to the Web Catalog.

#### Manifold Order Example

∕⁄∂SMC

#### 25A-ZZQ104A-BSB------ 1 pc.

## \* 25A-ZQ053MA-K15L-EAG-0... 2 pcs. $\rightarrow$ Stations 1 and 2 \* 25A-ZQ103MA-K15L-F-0 ..... 2 pcs. $\rightarrow$ Stations 3 and 4

\* 25A-2Q105WA-K15L-F-0 ······ 2 pcs. → Stations 5 and 4 \* When the manifold is viewed from the vacuum (V) port, the first station starts from the left.

25A-ZQ053MA-K15L-EAG-0 (2 pcs.) and 25A-ZQ103MA-K15L-F-0 (2 pcs.) are arranged from the first station.

# Vacuum (V) port

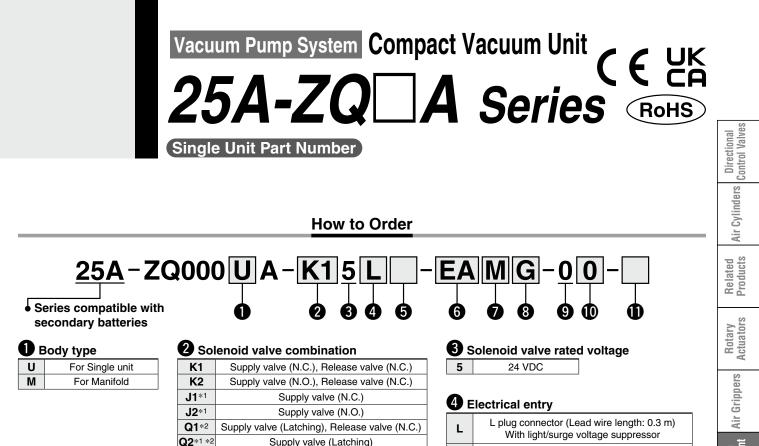
- I If "\*" is not entered, the manifold and single unit will be shipped without being assembled.
- When the manifold and the units are not assembled, please assemble them by referring to
- How to increase/decrease manifold stations" in the Web Catalog.
- There is nothing else to arrange additionally.

🗥 Caution when ordering manifold

Prefix it to the single unit part number.

The asterisk (\*) denotes the symbol for the assembly.

I



 2\*1\*2
 Supply valve (Latching)

 1
 The air in the adsorption section of this product is not released to the atmosphere at the vacuum suspension state. Devise the circuit for the vacuum release additionally.

\*2 Latching (+ common)

**5** Manual override

Nil	Non-locking push type
INII	Latching: Push-locking slotted type
<b>B</b> *3	Locking slotted type

\*3 When "Q1" is selected in Q, the locking slotted type is only available in the release valve. This option cannot be chosen when "Q2" is selected

in  $\mathbf{Q}$ .

#### 6 Vacuum pressure switch (With suction filter\*4)

LO

Symbol	Pressure range [kPa]	Output	
EA		NPN 2 outputs	
EB	0 to -100	PNP 2 outputs	
EC	010-100	NPN 1 output + Analog voltage	
EE		PNP 1 output + Analog voltage	
FA		NPN 2 outputs	
FB	-100 to 100	PNP 2 outputs	
FC		NPN 1 output + Analog voltage	
FE		PNP 1 output + Analog voltage	
<b>F</b> * <sup>5</sup>	Suction filter only		

\*4 The filter used in this product is of a simple type, and will become clogged quickly in environments with high quantities of dust or particulates. Please consider using in combination with an air suction filter of the ZFC series, etc.

\*5 It is not necessary to select the items for 7 and 8.

#### 🕖 Unit

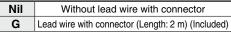
Nil*6	With unit switching function
М	SI unit only (kPa)
<b>P</b> *6	With unit switching function (Initial value: psi)

\*6 Under the New Measurement Act, switches with the unit switching function are not permitted for use in Japan (implemented October 1999).

#### Fitting (PS/PV port)

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

#### 8 Lead wire



#### 9 Fitting (V port)

L plug connector (Without connector)

With light/surge voltage suppressor

SymbolApplicable tubing O.D.**0**Without fitting (M5 x 0.8)

# Option For Single Unit (1: U)

For Single Unit (1: U) For Manifold (1: M)						
Symbol Bracket assembly		Converter assembly for solenoid valve*7		Release pressure supply (PD) port*8	Converter assembly for solenoid valve*7	
Nil 0 —		Nil	_	_		
Ν	_	—	S	0	_	
С	_	0	С	—	0	
D	0	0	E	0	0	

7 A converter assembly for attaching the VQ100 lead wire assembly with a connector to the ZQ-r is included. Refer to the "Converter Assembly for Solenoid Valve" in the Web Catalog. "Q2" cannot be selected in ②. Select "LO" in ③.

\*8 Select "C" for (9) for the manifold part number on page 180-5. "J1", "J2", or "Q2" cannot be selected in (2).

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

For details, refer to the Web Catalog.



Equipment

Vacuum

r Preparation Equipment

Air

Clean Air Filters

Modular F.R.L./ Pressure Control Equipment

Flow Control Equipment/ Fittings

> Detection Switches

Fluid Control Equipment

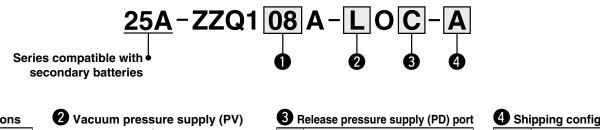
Process Gas Equipment

Electric Actuators

Switches

# Vacuum Pump System Compact Vacuum Unit 25A-ZQ A Series Rolls Manifold Part Number





Stations				
01	1 station			
02	2 stations			
:	÷			
08	8 stations			

**A** ......

port location\*1 Left side

R **Right side** \*1 The position of the vacuum pressure supply (PV) port when the vacuum (V) port is facing

front. The pilot pressure supply (PS) port is on the opposite side. Refer to the "Table 1" for details.

None (Release pressure: Commonly в supplied from the PS port) Provided (Release pressure: **C**\*2 Supplied from the PD port)

\*2 Select "S" or "E" for 1 for the single unit part number on page 180-4.

#### **4** Shipping configuration

Nil Assembled as a vacuum unit **A**\*3 Manifold unit only

\*3 A set of end blocks and the clamp rod assembly is included in this manifold unit. (Used for the maintenance of the end block)

#### Table 1. Location of Each Port

L

	3 PD port	Left side with the V port facing the front		Right side with the V port facing the front			
2 PV port location		PS port	PV port	PD port	PS port	PV port	PD port
	В	—	•	—	•	—	—
L	С	—	•	•	•	—	•
В	В	•		_	_	•	—
R	С	•	_	•	_	•	•

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

4

Stations

#### For details, refer to the Web Catalog.

#### Manifold Order Example

#### 25A-ZZQ104A-ROB .....1 pc.

\* 25A-ZQ000MA-K15L-EAG-0 $\cdots$  2 pcs.  $\rightarrow$  Stations 1 and 2 \* 25A-ZQ000MA-K15L-F-0  $\cdots$  2 pcs.  $\rightarrow$  Stations 3 and 4

When the manifold is viewed from the vacuum (V) port, the first station starts from the left.

25A-ZQ000MA-K15L-EAG-0 (2 pcs.) and 25A-ZQ000MA-K15L-F-0 (2 pcs.) are arranged from the first station.

# Vacuum (V) port 3

#### Caution when ordering manifold

- The asterisk (\*) denotes the symbol for the assembly. I.
- Prefix it to the single unit part number. 1
- If "\*" is not entered, the manifold and single unit will be shipped without being assembled.
- L When the manifold and the units are not assembled, please assemble them by referring to
- "How to increase/decrease manifold stations" in the Web Catalog. I.
- There is nothing else to arrange additionally.

Compact Vacuum Unit **25A-ZQ** A Series

#### Construction

11

12

13

14

15

16

**Tension bolt** 

Filter element

Bracket assembly

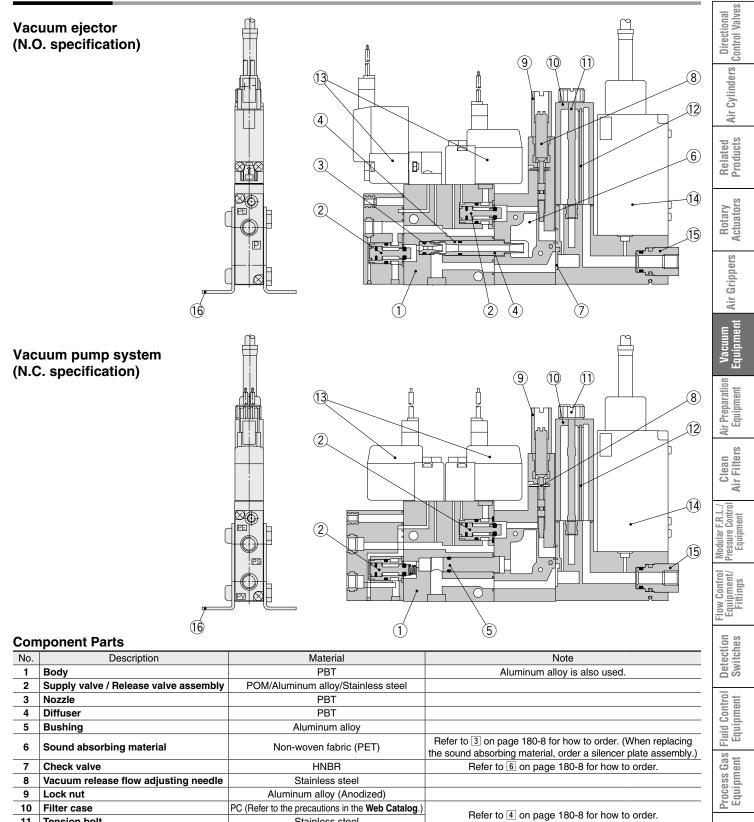
Screws for assembly

Vacuum pressure switch

Vacuum (V) port M5 bushing

Seal material (O-ring, etc.)

Pilot supply valve / Pilot valve (for release)



Auto Switches

Electric Actuators

Stainless steel

**PVA** sponge

Aluminum alloy (Anodized)

Steel (Electroless nickel plating), Stainless steel

NBR/HNBR

Steel (Electroless nickel plating), Stainless steel

Refer to 5 on page 180-8 for how to order.

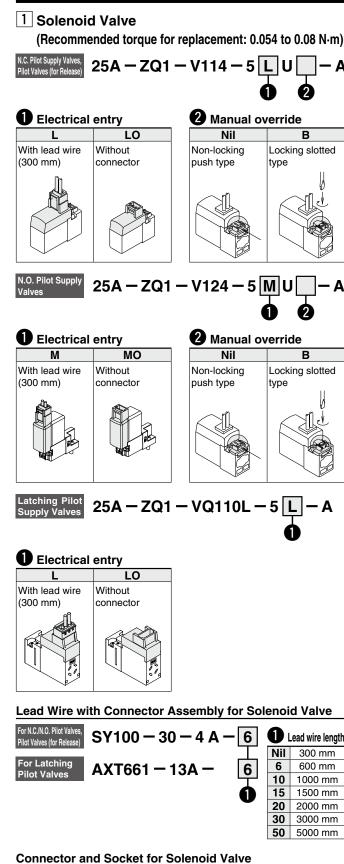
Refer to 1 on page 180-7 for how to order.

Refer to 2 on page 180-7 for how to order.

Refer to 7 on page 180-8 for how to order.

# 25A-ZQ A Series

#### How to Order Replacement Parts for Single Unit



2 Vacuum Pressure Switch (With Suction Filter) (Recommended torgue for replacement: 0.11 to 0.13 N·m)



#### Vacuum pressure switch

-			
Symbol	Pressure range [kPa]	Output	
EA		NPN 2 outputs	
EB	0 to -100	PNP 2 outputs	
EC		NPN 1 output + Analog voltage	
EE		PNP 1 output + Analog voltage	
FA	–100 to 100	NPN 2 outputs	
FB		PNP 2 outputs	
FC		NPN 1 output + Analog voltage	
FE		PNP 1 output + Analog voltage	
VA*1 VB*1		NPN 1 output + Energy saving control	
	1	PNP 1 output + Energy saving control	

\*1 It is not possible to replace the vacuum pressure switch from the specification without energy saving function to the specification with energy saving function.

#### 2 Unit

Nil*2 With unit switching function	
M SI unit only (kPa)	
P*2, *3 With unit switching function (Initial value: psi	

\*2 Under the New Measurement Act, switches with the unit switching function are not permitted for use in Japan (implemented October 1999).
\*3 Cannot be selected when ① is "VA" or "VB"

#### **3** Lead wire

Nil	Without lead wire with connector		
G	Lead wire with connector (Length: 2 m) (Included)		
W	Lead wire for switch with energy saving function (Length: 2 m) (Included)		

#### 4 Check valve\*4

Nil	None
<b>K</b> *5	With check valve

\*4 The check valve has a function to prevent the exhaust air from the exhaust unit overflowing to the vacuum port side when a manifold is used, but it cannot prevent overflow of the exhaust air completely. 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.

\*5 When "VA" or "VB" is specified for  ${\rm 0},$  the check valve is already built in.

#### \land Warning

1. Cannot be used for vacuum retention

2. Use a release valve. Without a release valve, a workpiece may not be released.

#### **5** Fitting (V port)

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

#### Lead Wire with Connector Assembly for Vacuum Pressure Switch

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

#### $\cdot$ Lead wire with connector for vacuum pressure switch

#### ZS – 39 – 5G

\* With connector and

sockets only

SMC

 $\cdot$  Lead wire with connector for pressure switch with energy saving function





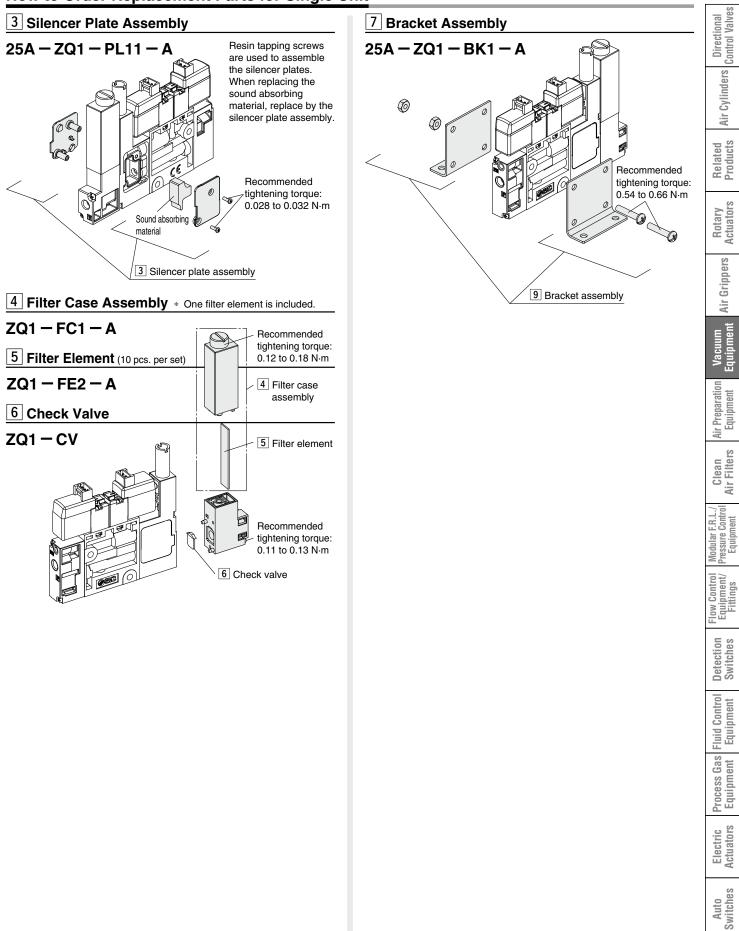
For N.C/N.O. Pilot Valves

SY100 - 30 - A

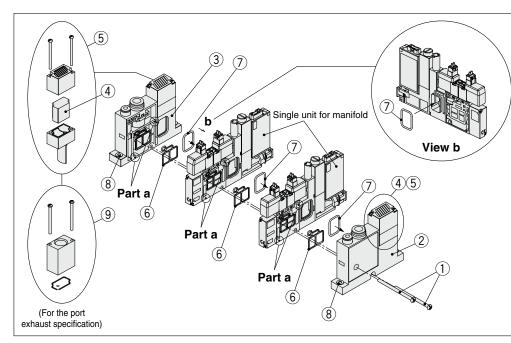
AXT661 – 12A

(Number of sockets: 2)

(Number of sockets: 3)



# Compact Vacuum Unit/25A-ZQ A Series Manifold Exploded View



#### How to increase/decrease manifold stations

#### Disassembly

- 1. Remove 2 clamp rods ①.
- 2. Remove end block L 2. (Be careful not to drop the gasket.)

#### Assembly

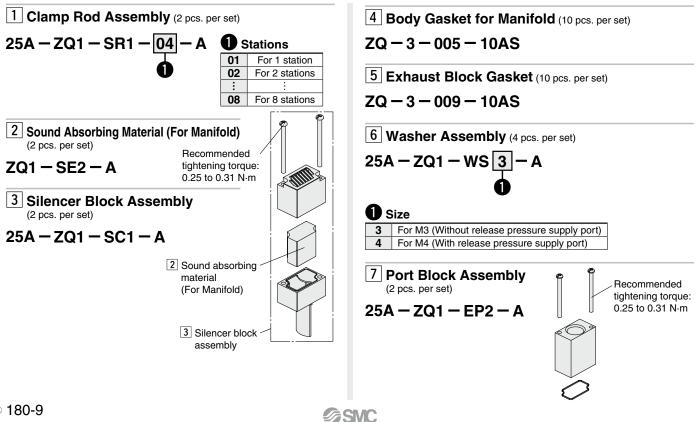
- 1. Confirm that the body gasket for manifold 6 is attached to the gasket groove on each single unit and that the exhaust block gasket 7 is also attached to the outer side of the raised part. (See View b.)
- 2. Confirm that the body gasket for manifold (6) is attached to the gasket groove on end block R 3.
- 3. Confirm that the exhaust block gasket ⑦ is attached to the outer side of the raised part on end block L 2.

4. Put together the single units for manifold, end block R 3, and end block L 2 using the positioning pins (at two "a" locations), and assemble them using the clamp rods 1. Tightening torque: 0.54 to 0.66 N·m

#### **Component Parts**

No.	Description	Material	Note			
1	Clamp rod assembly	Steel (Electroless nickel plating)	Refer to 1 below for how to order.			
2	End block L	PBT, POM, PET, Steel, Aluminum alloy, Stainless steel	Left side with the vacuum (V) port facing the front			
3	End block R	PBT, POM, PET, Steel, Aluminum alloy, Stainless steel	Right side with the vacuum (V) port facing the front			
4	Sound absorbing material (For Manifold)	Non-woven fabric (PET)	Refer to 2 below for how to order.			
5	Silencer block assembly	PBT	Refer to 3 below for how to order.			
6	Body gasket for manifold	NBR	Refer to 4 below for how to order.			
7	Exhaust block gasket	NBR	Refer to 5 below for how to order.			
8	Washer assembly	Stainless steel	Refer to 6 below for how to order.			
9	Port block assembly	Aluminum alloy, Steel (Electroless nickel plating), NBR	Refer to 7 below for how to order.			

#### How to Order Replacement Parts for Manifold



**SMC** 

# Space Saving Vacuum Ejector **25A-ZQ Series**

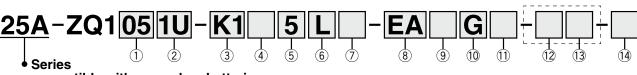
The ZQ series space saving vacuum ejector/vacuum pump system is to be discontinued as of April 2023. Consider selecting a ZQ $\Box$ A series compact vacuum unit as a substitute. Click here for details.

#### How to Order

[Option]

 CE/UKCA-compliant: For DC only.

### **Ejector Unit**



compatible with secondary batteries

#### 1 Nozzle nominal size

#### 2 Exhaust type

05	ø0.5	1	U	With silencer for single unit
07	ø0.7	31	M	With silencer for manifold
10	ø1.0			

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

Symbol	Supply valve	Vacuum release valve
K1 Normally closed		Normally closed
<b>K2</b> *1	Normally open	Normally closed
J1	Normally closed	None
J2*1 Normally open		None
Q1 Latching positive common Normally clo		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			
	id energizing the solenoid valve			
for le	for long periods of time. (Refer to			
Des	Design and Selection in the Specific			
Proc	Product Precautions.)			

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

		CE/UKCA-
		compliant
<b>1</b> *3	100 VAC (50/60 Hz)	_
<b>2</b> *3	200 VAC (50/60 Hz)	—
<b>3</b> *3	110 VAC (50/60 Hz)	_
<b>4</b> *3	220 VAC (50/60 Hz)	—
5	24 VDC	•
6	12 VDC	

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

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

Combination	Solenoid valve combination	FIIOL VAIVE		Applicabl	e power	supply v	oltage [V	]
no.	symbol	symbol	100 AC	200 AC	110 AC	220 AC	24 DC	12 DC
1	K1	Nil	—	—	—		•	
2	K1	Y	—		_	—		
3	K2	Nil	—	—	—	—	$\bullet$	$\bullet$
(4)	J1	Nil			•	•		
5	J1	Y	—		_	_		
6	J2	Nil	—	—	_	_		
7	Q1	Nil	—	—	—	—	$\bullet$	$\bullet$
8	Q2	Nil			•	•	•	
9	N1	Nil	—		_	_		
10	N2	Nil	—	_	_	_		$\bullet$

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

**SMC** 

# Space Saving Vacuum Ejector **25A-ZQ** Series

#### 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)	<b>B</b>

#### ⑦ Manual override<sup>\*4</sup>

Nil	Non-locking push type Latching type: Push-locking type
В	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.

#### 

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.

#### 1 Check valve\*8

Nil	None	
Κ	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

#### 9 Vacuum pressure switch unit specifications

Nil	NII With unit switching function*6	
M Fixed SI unit*7		
Р	With unit switching function <sup>*6</sup> (Initial value psi)	
*6 Under the New Measurement Act, switches		

\*6 Under the New Measurement Act, switches with the unit switching function are not permitted for use in Japan.

\*7 Fixed unit: kPa

#### 10 Vacuum pressure switch lead wire specifications

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

#### **<u>14</u> CE/UKCA-compliant**

Nil	—		
Q	CE/UKCA-compliant		
* CE/UKCA-compliant: For DC on			

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

For details, refer to the Web Catalog. 182 **Process Gas** 

Equipment

Electric Actuators

Auto Switches

Directional Control Valves

Air Cylinders

**Related Products** 

Rotary Actuators

Air Grippers

Vacuum Equipment

Preparation

Air

Equipment

Clean Air Filters

# 25A-ZQ Series

How to Order

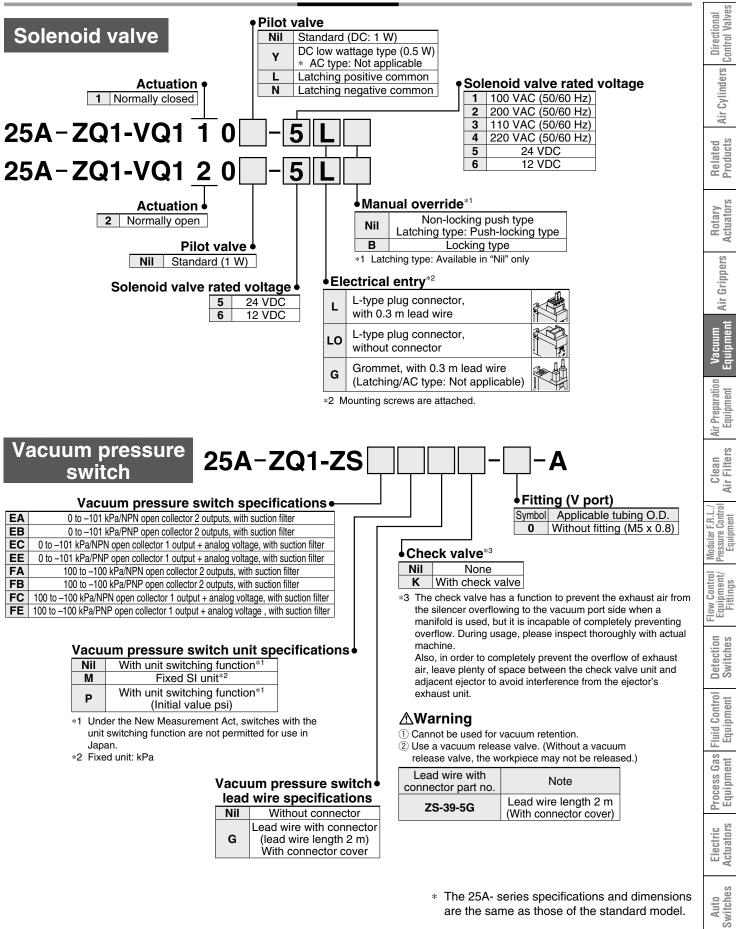
02       2 stations         :       :         08       8 stations         *1 Number of stations varies according to nozzle nominal size during simultaneous operation.         Maximum Number of Stations in Simultaneous Operation.         Nozzle nominal size         Nozzle nominal size         Nozzle nominal size         08         09.5         8 stations         09.7
*1 Number of stations varies according to nozzle nominal size during simultaneous operation. Maximum Number of Stations in Simultaneous Operation Nozzle nominal size Ø0.5 8 stations
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simultaneous operation. Maximum Number of Stations in Simultaneous Operation Nozzle nominal size Ø0.5 8 stations
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in Simultaneous Operation Nozzle nominal size Maximum number of stations in simultaneous operation Ø0.5 8 stations
Nozzle nominal sizeMaximum number of stations in simultaneous operationØ0.58 stations
size         operation           Ø0.5         8 stations
Ø <b>0.7</b> 6 stations
Ø1.0 4 stations
Air pressure supply
(P) port position
<b>B</b> Both sides
Exhaust •
<b>S</b> With silencers (Both sides)
Vacuum release pressure supply port (PD port
B None (Release pressure is supplied from the P port.)

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

For details, refer to the Web Catalog.

# Space Saving Vacuum Ejector 25A-ZQ Series

How to Order



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

**多SMC** 

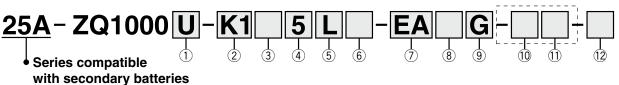
# Space Saving Vacuum Pump System **25A-ZQ** Series

The ZQ series space saving vacuum ejector/vacuum pump system is to be discontinued as of April 2023. Consider selecting a ZQ $\Box$ A series compact vacuum unit as a substitute. Click here for details.

#### How to Order

 CE/UKCA-compliant: For DC only.

## Vacuum pump unit



#### 1 Body type

U	For single unit
М	For manifold

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

Symbol	Supply valve	Vacuum release valve
K1	Normally closed	Normally closed
<b>K2</b> *1	Normally open	Normally closed
J1	Normally closed	None
<b>J2</b> *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.

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

Combination	Solenoid valve combination	Pilot valve		Applicabl	e power	supply v	oltage [V	]
no.	symbol	symbol	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	—	—	—	—		$\bullet$
6	J2	Nil	—	—	—	_		
7	Q1	Nil	—	—	—	_		
8	Q2	Nil				•		
9	N1	Nil		_	_	—	•	
10	N2	Nil	—	—	—	—	•	$\bullet$

 $\ast\,$  Combinations 1 to 1 in the above table are the only possible options.

#### ③ Pilot valve (Refer to Table (1).)

Nil Standard (DC: 1 W)\*2

Y DC low wattage type (0.5 W)<sup>\*2</sup> \*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/UKCA- compliant
<b>1</b> *3	100 VAC (50/60 Hz)	—
<b>2</b> *3	200 VAC (50/60 Hz)	_
<b>3</b> *3	110 VAC (50/60 Hz)	_
<b>4</b> *3	220 VAC (50/60 Hz)	—
5	24 VDC	
6	12 VDC	

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

**SMC** 

# Space Saving Vacuum Pump System **25A-ZQ Series**

#### 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
В	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.

#### 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.

#### 

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

1 Fitting	(PS/	/ PV	port)*8
-----------	------	------	---------

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

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

#### 12 CE/UKCA-compliant

Nil	
Q	CE/UKCA-compliant

\* CE/UKCA-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** 

With unit switching function\*6 Fixed SI unit\*7

With unit switching function\*6

(Initial value psi)

Without connector

Lead wire with connector

(Lead wire length 2 m)

With connector cover

\*6 Under the New Measurement Act, switches with the unit switching function are not

unit specifications

permitted for use in Japan.

9 Vacuum pressure switch

lead wire specifications

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

For details, refer to the Web Catalog.

\*7 Fixed unit: kPa

Nil

М

Ρ

Nil

G

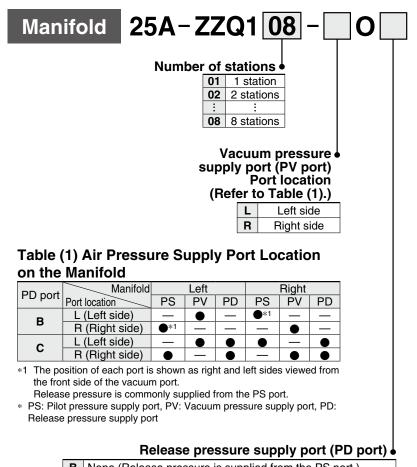
**Related Products** Rotary Actuators Air Grippers Equipment Vacuum Preparation Equipment Air Air Filters Clean Modular F.R.L./ Pressure Control Equipment Flow Control Equipment/ Fittings Detection Switches Fluid Control Equipment Process Gas | Equipment Electric Actuators Auto Switches

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Directional

186

# 25A-ZQ Series



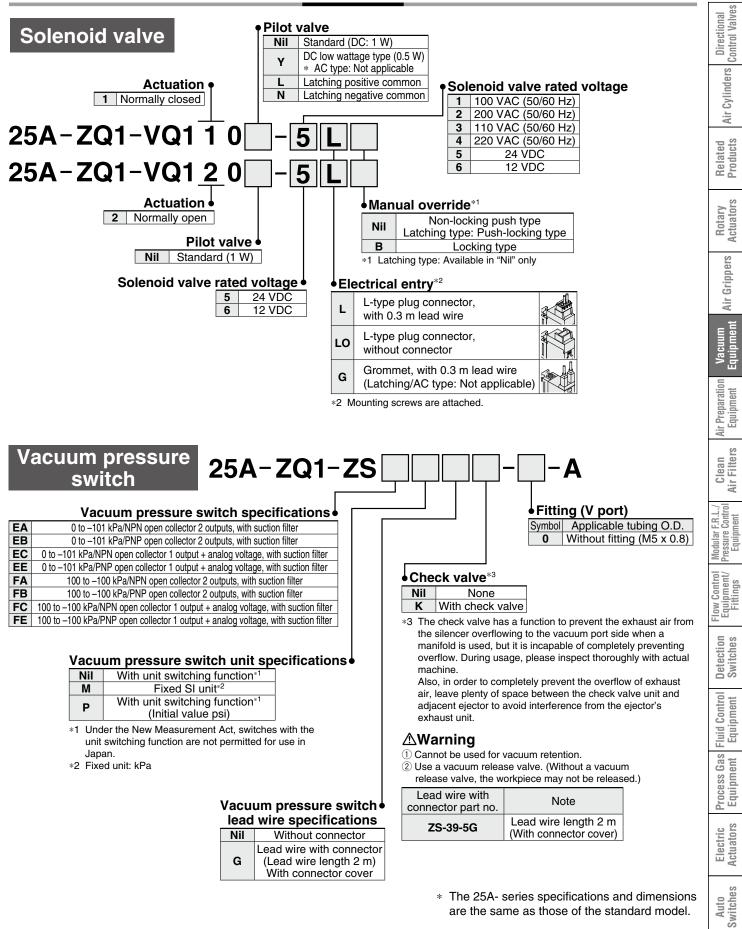
	None (Release pressure is supplied from the PS port.)
С	Provided (Air can be alternatively supplied from the PS port.)

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

For details, refer to the Web Catalog.

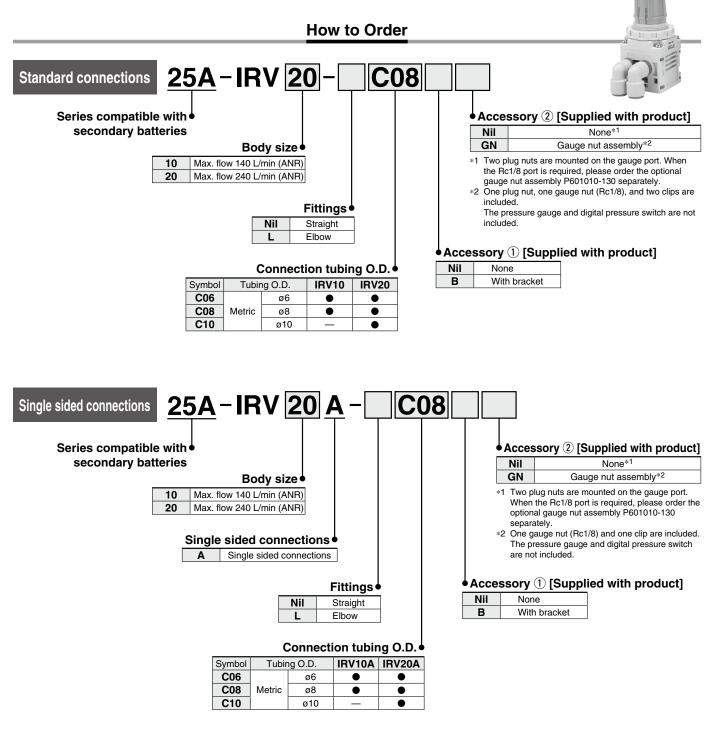
# Space Saving Vacuum Pump System **25A-ZQ** Series

How to Order



**SMC** 

# Vacuum Regulator RoHS 25A-IRV10/20 Series



\* 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.

For details, refer to the Web Catalog.