

Vacuum Ejector

Series ZM



All in One!

- Built-in suction filter and silencer
- Air supply valve for generating a vacuum
- Vacuum release valve (equipped with a flow volume adjustment valve)
- Vacuum pressure switch (solid state, diaphragm)

Adaptable for a manifold application

All tubing, wiring, indicators, and adjustment functions have been eliminated from the side surfaces, thus enabling assembly and maintenance while linked to a manifold.

- EXH system — Common
- SUP system — Common, Individual

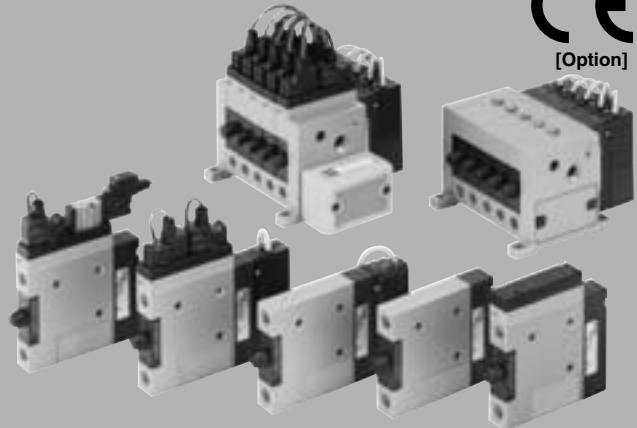
Maximum air suction volume increased by 40% Maximum vacuum pressure -84 kPa

The suction volume has been increased by 40% through the adoption of a two-stage nozzle construction.

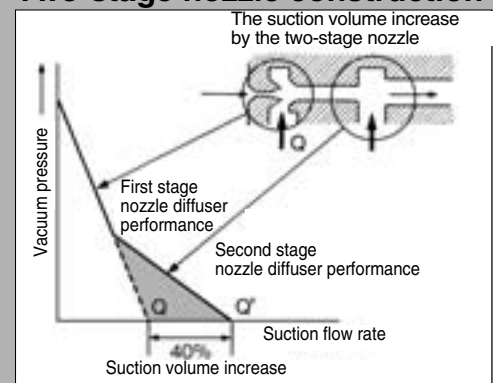
Compact and lightweight

15.5 mm width, 400 g (full system)

Air operated type



Two-stage nozzle construction

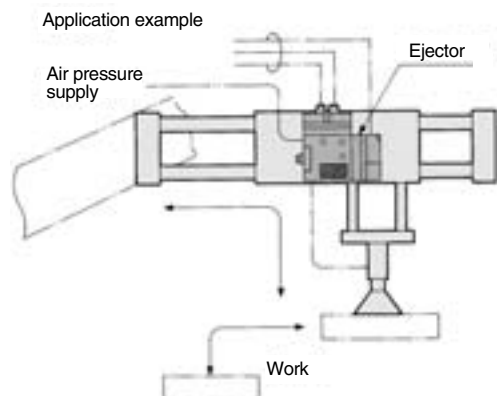


Series ZM Applications

Fields: Semiconductor and electrical, automobile assembly, food and medical equipment, and various types of manufacturing and assembly equipment

Machines: Robotic hand/material handling, automotive assembling machines, automatic transfer equipment, pick and place, printing machinery

Functions: Vacuum adsorption transfer, vacuum adsorption retention, vacuum generated air flow



ZA

ZX

ZR

ZM

ZMA

ZQ

ZH

ZU

ZL

ZY□

ZF□

ZP□

SP

ZCUK

AMJ

AMV

AEP

HEP

Related Equipment

Vacuum Ejector With Valve and Switch Series ZM

Note) CE compliant: For
DC only.



How to Order

ZM

Nozzle diameter

05	0.5 mm
07	0.7 mm
10	1.0 mm
13	1.3 mm
15	1.5 mm

Vacuum port location

Nil	Side/Bottom entry
A	Side entry

Standard supply pressure

M	0.35 MPa
S	0.45 MPa
H	0.5 MPa

Thread type

Nil	Rc
T	NPTF
F	G Note)

Body style

1	Single unit: With valve + With standard silencer
1S	Single unit: With valve + With high noise reduction silencer
3 Note)	Manifold: With common SUP valve
5 Note)	Manifold: With individual SUP valve
2	Single unit: With standard silencer (Without valve)
2S	Single unit: With high noise reduction silencer (Without valve)
4 Note)	Manifold: Without common SUP valve
6 Note)	Manifold: Without individual SUP valve

Note) When the product is used for the manifold, the exhaust air of the operating ejector may enter the vacuum (V) port of the non-operating ejector and be released if there are an operating and non-operating ejector. If this becomes a problem, consider using a double check valve (-X107 on page 1004) or individual exhaust (-X111 on page 1005.)

Note) G thread
The thread ridge shape is compatible with the G thread standard (JIS B0202), but other shapes are not conforming to ISO16030 and ISO1179.

Supply valve/Release valve combination

J	Supply valve (N.C.)
K	Supply valve (N.C.), and release valve
A	Supply valve (N.O.)
B	Supply valve (N.O.), and release valve
P3	Air operated valve (supply valve), Port size connection M3 x 0.5
P5	Air operated valve (supply valve), Port size connection M5 x 0.8
Q3	Air operated valve (supply/release valve), Port size connection M3 x 0.5
Q5	Air operated valve (supply/release valve), Port size connection M5 x 0.8
Nil	Without valve

* As the double solenoid specifications, -X126 and -X135 are available as a special order. (Refer to page 1006.)
When selecting air operated valves, there will be no symbol specified for "pilot valves", "solenoid valve rated voltage", "electrical entry", "light/surge voltage suppressor" and "manual override".

Pilot valve

Nil	DC: 1 W (With indicator light: 1.05 W)
Y	DC: 0.45 W (With indicator light: 0.5 W)

Solenoid valve rated voltage

1 Note)	100 VAC 50/60 Hz	—
3 Note)	110 VAC 50/60 Hz	—
5	24 VDC	●
6	12 VDC	●
V	6 VDC	●
S	5 VDC	●
R	3 VDC	●
Nil	Air operated/Without valve	—

Note) CE compliant products are not available for "1" and "3".

Release flow rate adjusting needle

Nil	Without lock nut
L	With lock nut

Compatible with release valves only.

Made to Order
Refer to pages 1004 to 1006 for details.

Vacuum switch electrical entry

Nil	Grommet type, with 0.6 m lead wire (ZSE1)
L	Grommet type, with 3 m lead wire (ZSE1)
C	Connector type, with 0.6 m lead wire (ZSE1)
CL	Connector type, with 3 m lead wire (ZSE1)
CN	Connector type, without connector assembly
Nil	Grommet type, with 0.5 m lead wire (ZSM1)
L	Grommet type, with 3 m lead wire (ZSM1)

Vacuum switch model

Nil	Without switch
E14	1 output, without analog output, 3 rotation setting (ZSE1)
E15	1 output, without analog output, 200° setting (ZSE1)
E16	2 outputs, without analog output, 3 rotation setting (ZSE1)
E17	2 outputs, without analog output, 200° setting (ZSE1)
E18	1 output, analog output, 3 rotation setting (ZSE1)
E19	1 output, analog output, 200° setting (ZSE1)
E55	1 output, without analog output, 200° setting, PNP output (ZSE1)
M15	1 output, without analog output, Diaphragm (18 rotation setting), Solid state(10 to 26 VDC) (ZSM1)
M21	1 output, without analog output, Diaphragm (18 rotation setting), Reed (AC/DC 100 VAC) (ZSM1)

Manual override

Nil	Non-locking push type
B	Locking slotted type

Light/Surge voltage suppressor

Nil	None
Z	With light/surge voltage suppressor
S	With surge voltage suppressor

* S is not available for AC.
DC voltage (with surge voltage suppressor)
If the polarity is incorrect at DC (surge voltage suppressor), diode or switching element may be damaged.

Electrical entry

G	Grommet type, with 0.3 m lead wire (applicable to DC)
H	Grommet type, with 0.6 m lead wire (applicable to DC)
L	L plug connector, with 0.3 m lead wire
LN	L plug connector, without lead wire (applicable to DC)
LO	L plug connector, without connector (applicable to DC)
Nil	Air operated/Without valve

Combination of Nozzle Diameter and Standard Supply Pressure

Nozzle diameter	Standard supply pressure MPa		
	M (0.35)	S (0.45)	H (0.5)
0.5 mm	—	—	○
0.7 mm	○	—	○
1.0 mm	○	—	○
1.3 mm	○	○	○
1.5 mm	—	○	—