

Midi Keyboard Pump

Max. vacuum level	: VKX pump -92 kPa (-27.16 inHg) VKM pump -85 kPa (-25.1 inHg)
Max. flow rate	: VKX pump 62 NI/min (2.19 scfm) VKM pump 74 NI/min (2.61 scfm)
Supply air pressure	: 3~6 bar, Max. 7 bar (43.5~87 psi, max 101.5 psi)
Supply air type	: Dry compressed air
Working temperature	: -20℃ to +80℃
Noise level	: 50~65 dBA



Main Advantages

- High efficiency Midi vacuum pump (Multi-Nozzle type).
- Available of individual control.
- Vacuum filter self cleaning system.
- Long life time and Low noise level.
- Easy to install and Compact size (17mm).
- Lightweight. • Built-in check valve.
- Integrated Vacuum Pump, Air supply & vacuum release control valve, Vacuum Switch & Filter, Blowing flow control valve and silencer in a body.

Order No.

VKM62 - M4 - A 3 3 - C N V

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Model-Vacuum Flow

VKM61	- 37 NI/min
• VKM62	- 74 NI/min
VKX61	- 31 NI/min
VKX62	- 62 NI/min

② Body-type

S	- Single unit
• M	- Manifold unit
E	- Manifold unit with central exhaust unit

③ Vacuum Stack

1 - 1 stack	5 - 5 stack
2 - 2 stack	6 - 6 stack
3 - 3 stack	7 - 7 stack
• 4 - 4 stack	8 - 8 stack

④ Valves

	Air supply control valve	Vacuum release control valve
• A	⊙ (N. C. :Normal Closed)	⊙ (N. C. :Normal Closed)
B	⊙ (N. O. :Normal Open)	⊙ (N. C. :Normal Closed)
C	⊙ (N. C. :Normal Closed)	
D	⊙ (N. O. :Normal Open)	
E		⊙ (N. C. :Normal Closed)
W*	⊙ Double solenoid valve	⊙ (N. C. :Normal Closed)

* Only for DC24V and connector type.

⑤ Voltage

1	- AC 110V
2	- AC 220V
• 3	- DC 24V

⑥ Solenoid Terminal

1*	- DIN type without lead wire
2*	- DIN type with lamp without lead wire
• 3	- Connector type with lamp & 0.3 m lead wire
2B*	- DIN type with '2 in 1' BUS cable (Air control v/v + Vacuum release v/v)
3B*	- DIN type with '3 in 1' BUS cable (Air control v/v + Vacuum release v/v + Digital switch)

* Can not available with double solenoid valve

※ Remark

3 : Available only with DC24V

3B : Available only with DC24V

Available only with 'C' or 'PC', section ⑦

☞ About 'BUS cable' (340, 341)

⑦ Vacuum switch

- (P)C - Digital display output 2points, No analog supply M8 4-Pin connector type.
- (P)G - Digital display output 2points, No analog supply 4-Core 2m Grommet lead wire.
- (P)GA - Digital display output 2points, Analog supply 5-Core 2m Grommet lead wire.
- S1 - Mechanical vacuum switch
- S4 - Flashing LED light display NPN output 2points, No analog supply, 4-Core 1m lead wire.
- S5 - Flashing LED light display PNP output 1point, No analog supply, 3-Core 1m lead wire.

※ Remark : (P)..

☞ Output type : PNP open collector

⑧ Non return valve

no mark	- standard
• N	- Non return valve

⑨ Sealing

no mark	- standard (NBR)
• V	- Viton®
E	- EPDM

Characteristics

Model	max. vacuum -kPa(-inHg)	Max. vacuum flow (NI/m)/ eachstack	air consumption (NI/m)/eachstack	noise level (dBA)	weight (g) eachstack		min hose inner ϕ (within 2m)		
					Connector Valve	DIN Valve	air supply		vacuum
VKX61	92 (27.17)	31	21~24	50~65	213.5	291.5	≥ 4	$\geq 8 \sim 12$	≥ 6
VKX62		62	43~48	50~65	213.5	291.5	≥ 4	$\geq 8 \sim 12$	≥ 6
VKM61	85 (25.1)	37	15~21	50~65	213.5	291.5	≥ 4	$\geq 8 \sim 12$	≥ 6
VKM62		74	30~42	50~65	213.5	291.5	≥ 4	$\geq 8 \sim 12$	≥ 6

※ Remark : Manifold unit type weight = each stack weight X N + 56g (N: stack)

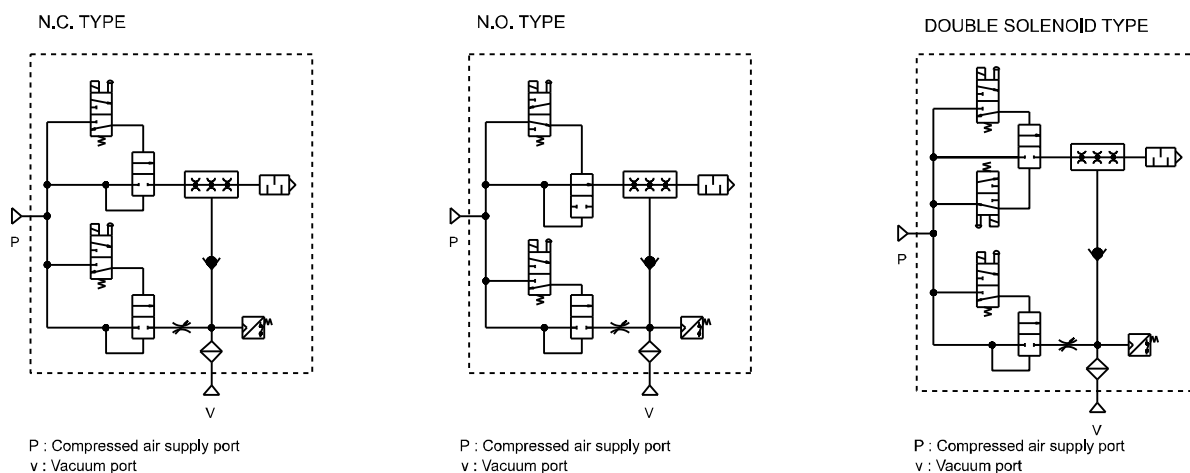
Induce air in liters per minute (NI/m)

Model	-inHg -kPa	0	2.95	5.9	8.85	11.81	14.76	17.71	20.67	23.62	26.57
	0	10	20	30	40	50	60	70	80	90	
VKX61×(N)		31	18	9	8	7	5	4	2.7	1.2	0.46
VKX62×(N)		62	36	18	16	13	11	9	5.4	2.4	0.9
VKM61×(N)		37	26	16	14	10	8	6	2.7	0.66	
VKM62×(N)		74	52	31	28	20	16	12	4.8	1.32	

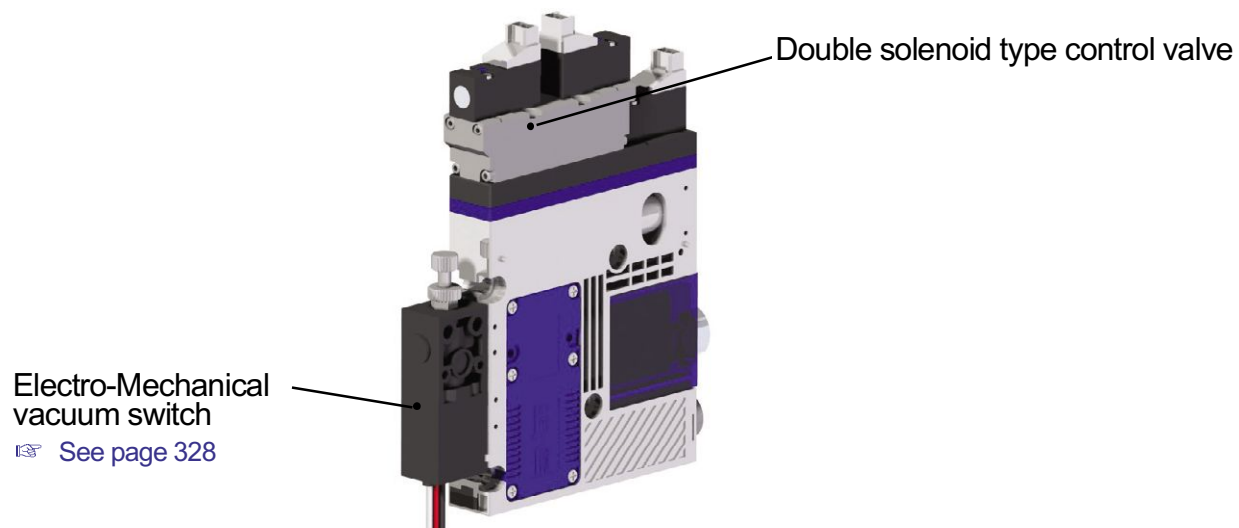
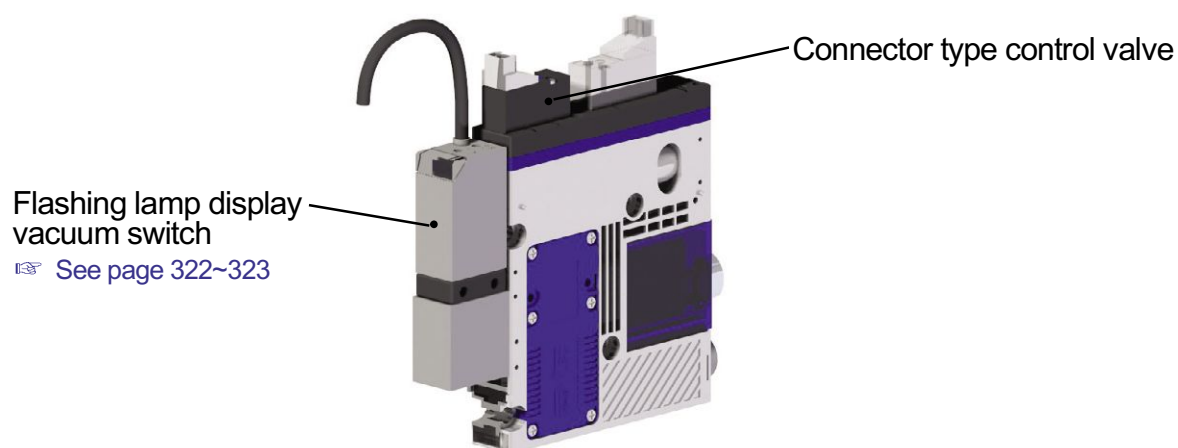
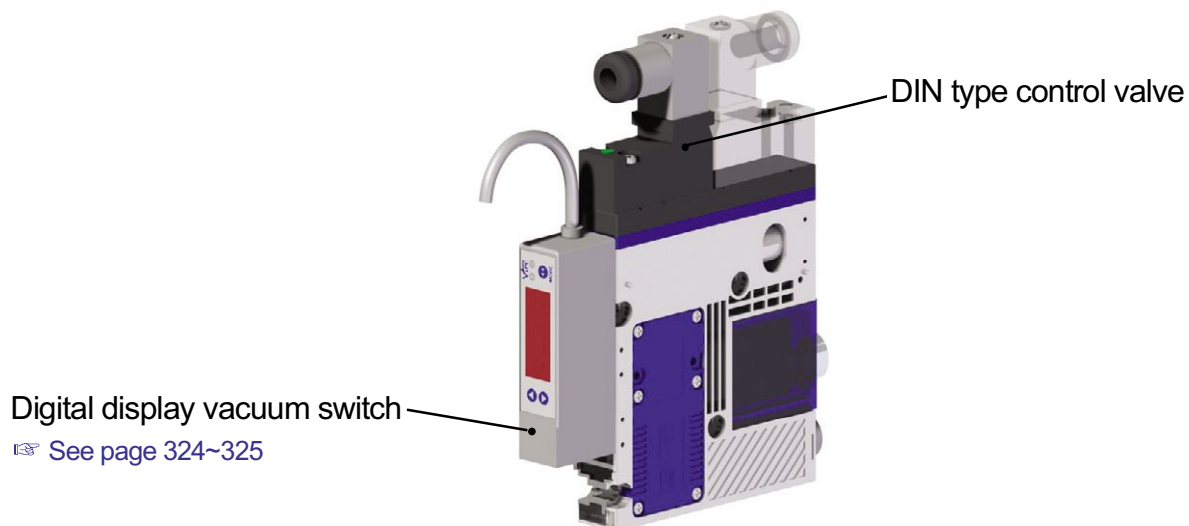
Time in seconds to evacuate to vacuum level (sec/l)

-inHg -kPa Model	2.95	5.9	8.85	11.81	14.76	17.71	20.67	23.62	26.57
	10	20	30	40	50	60	70	80	90
VKX61	0.258	0.796	1.516	2.4	3.56	4.91	6.896	10.16	19.19
VKX62	0.129	0.398	0.758	1.2	1.78	2.455	3.445	5.08	9.549
VKM61	0.218	0.556	1	1.576	2.356	3.44	5.27	10.216	
VKM62	0.109	0.278	0.5	0.788	1.178	1.72	2.635	5.158	

The composition of the Midi Keyboard pump



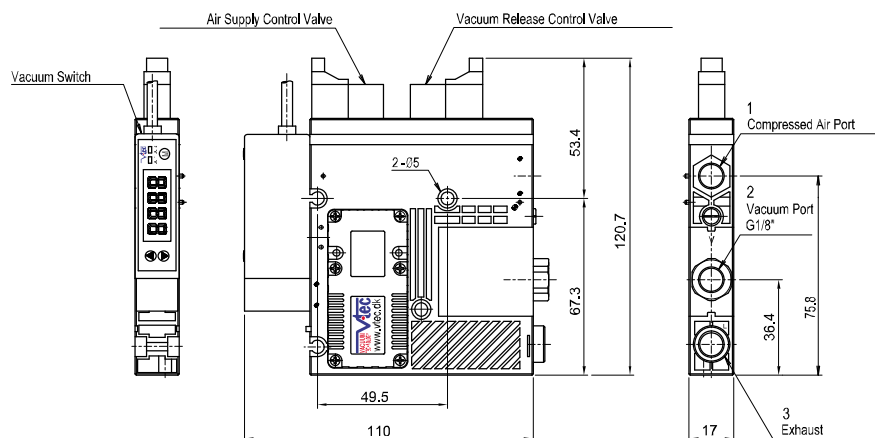
Selectable wide range of valves and switches.



Dimensional Information

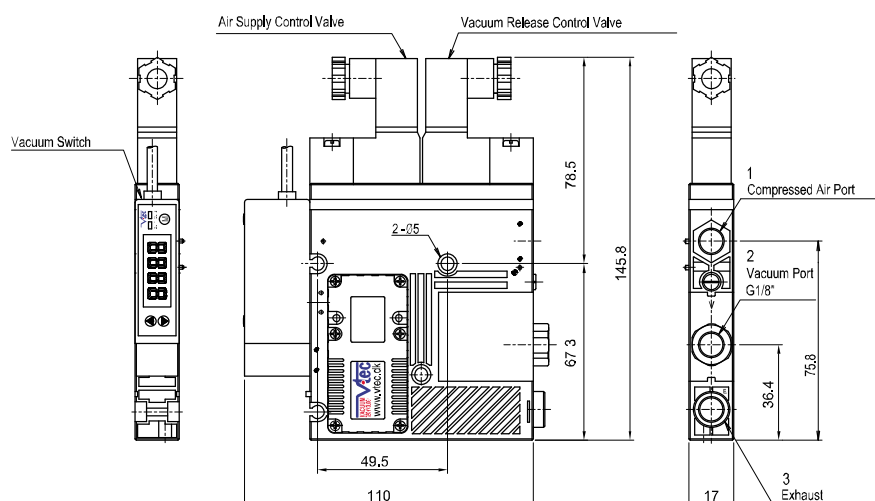
Single unit

Control valve Connector type / Digital vacuum switch



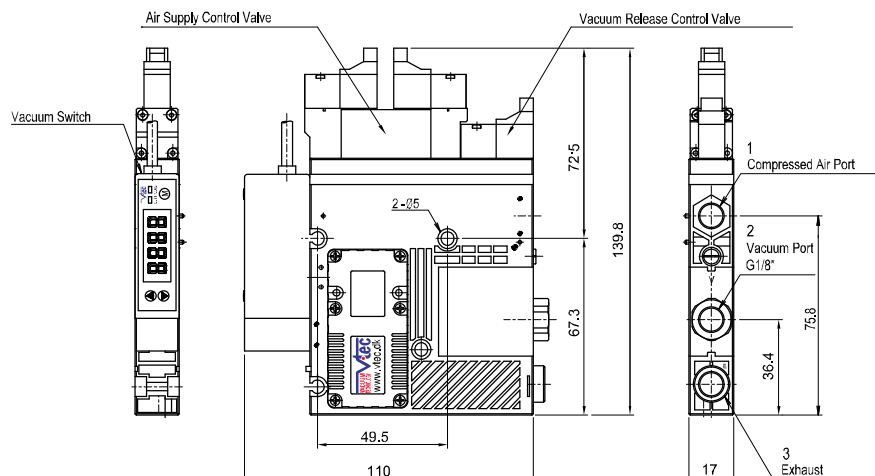
Single unit

Control valve DIN type / Digital vacuum switch



Single unit

Control valve double solenoid type / Digital vacuum switch

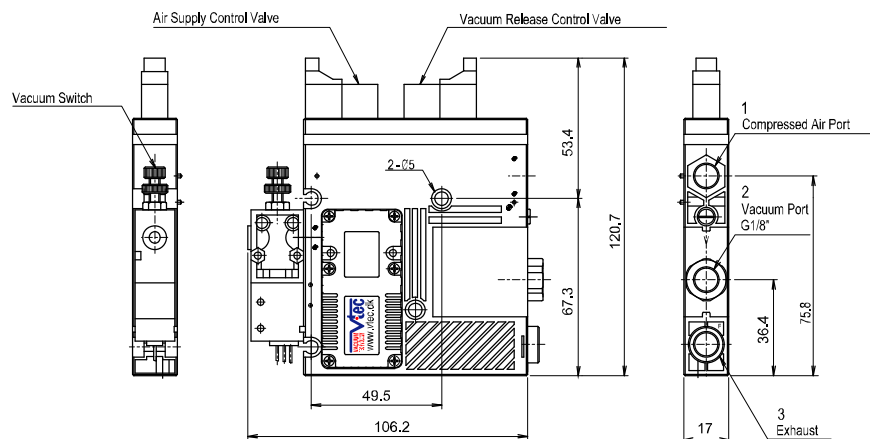


[Measure unit : mm]

Dimensional Information

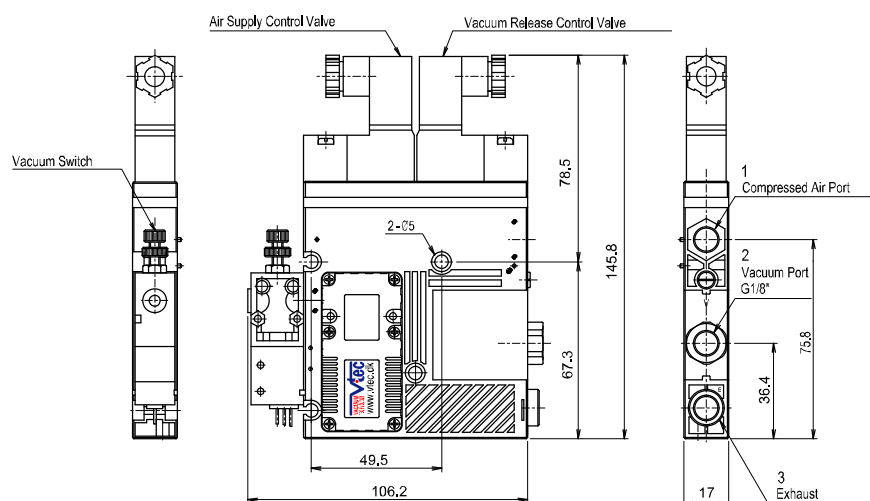
Single unit

Control valve Connector type / Mechanical vacuum switch



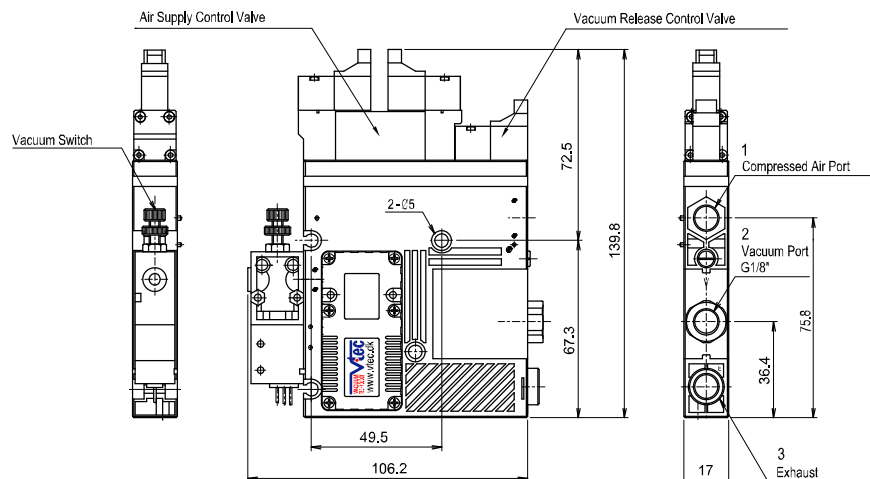
Single unit

Control valve DIN type / Mechanical vacuum switch



Single unit

Control valve double solenoid type / Mechanical vacuum switch

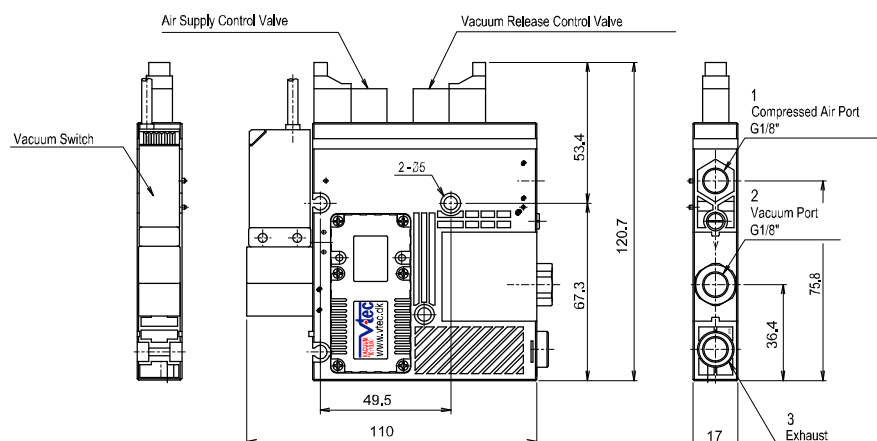


[Measure unit : mm]

Dimensional Information

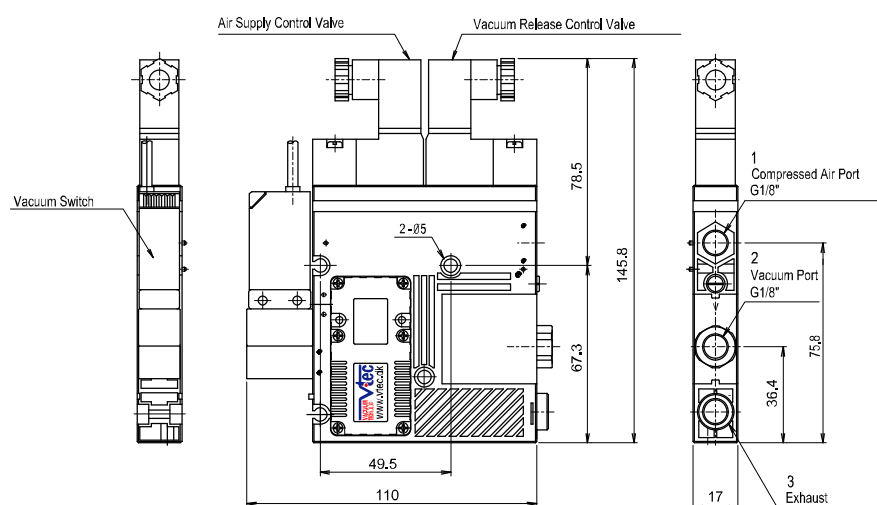
Single unit

Control valve Connector type / Flashing lamp display vacuum switch



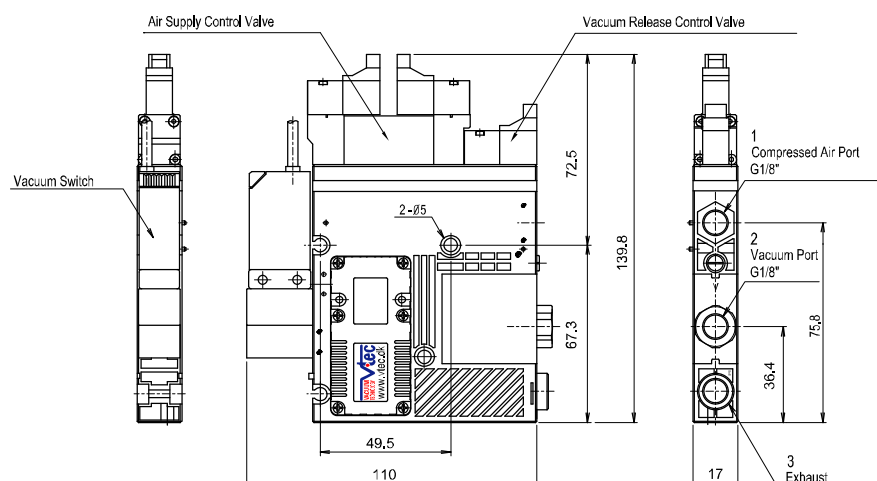
Single unit

Control valve DIN type / Flashing lamp display vacuum switch



Single unit

Control valve double solenoid type / Flashing lamp display vacuum switch

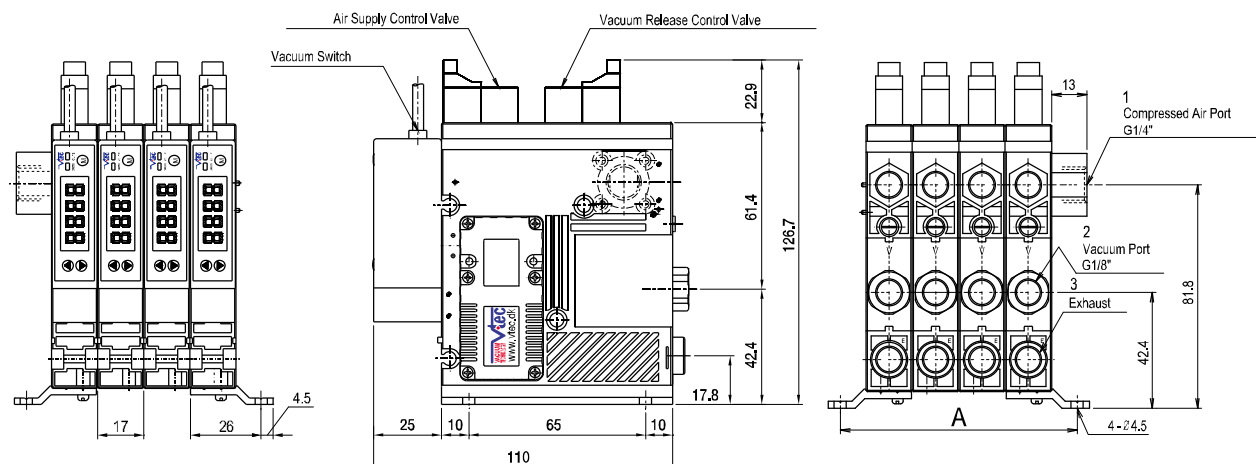


[Measure unit : mm]

Dimensional Information

Manifold unit

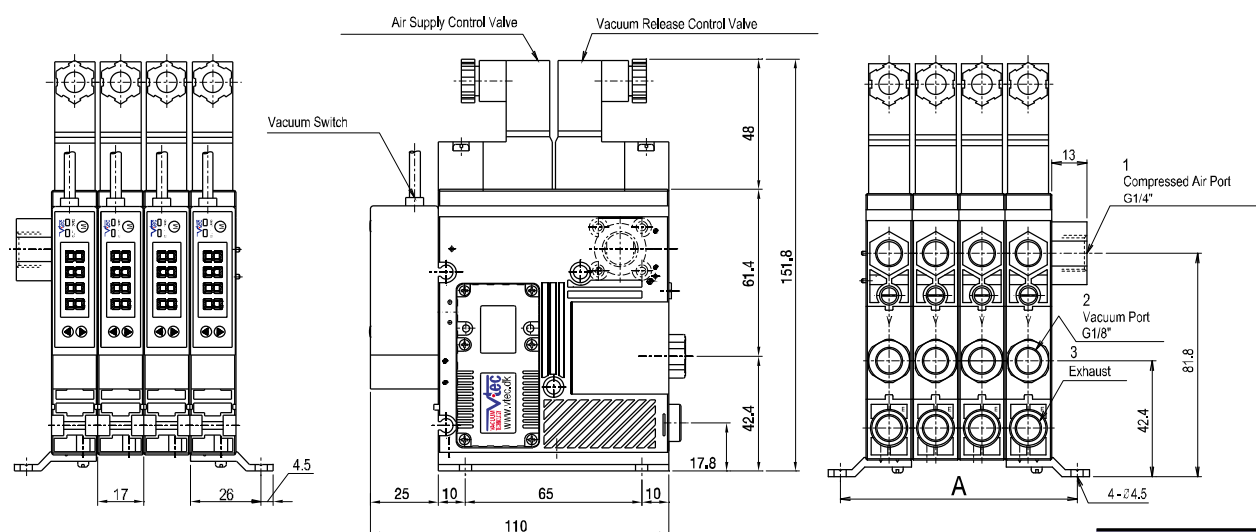
Control valve Connector type / Digital vacuum switch



Manifold unit

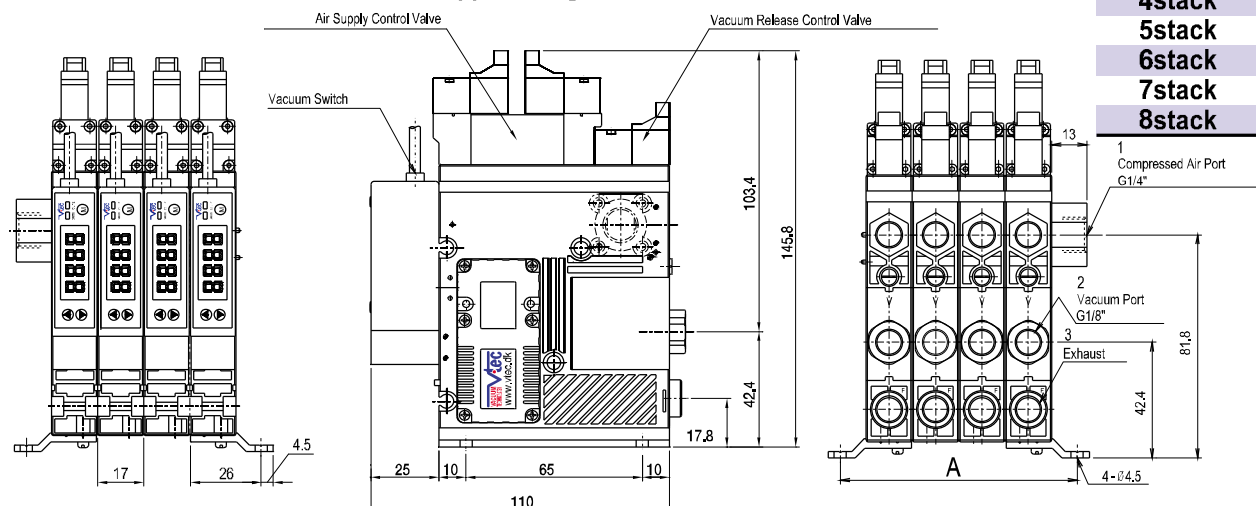
Control valve DIN type / Digital vacuum switch

[Measure unit : mm]



Manifold unit

Control valve double solenoid type / Digital vacuum switch

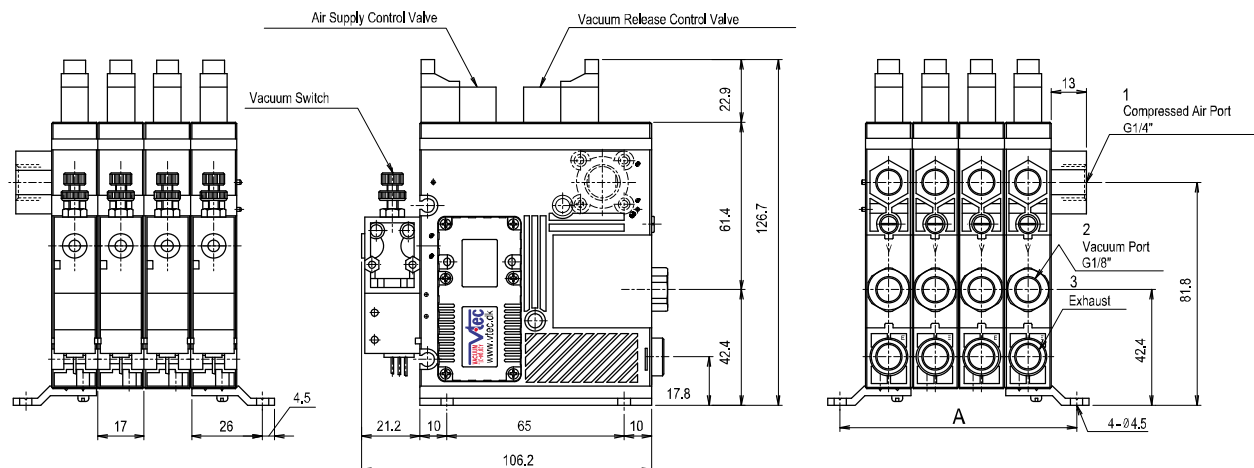


Stack	A (mm)
2stack	52.8
3stack	69.8
4stack	86.8
5stack	103.8
6stack	120.8
7stack	137.8
8stack	154.8

Dimensional Information

Manifold unit

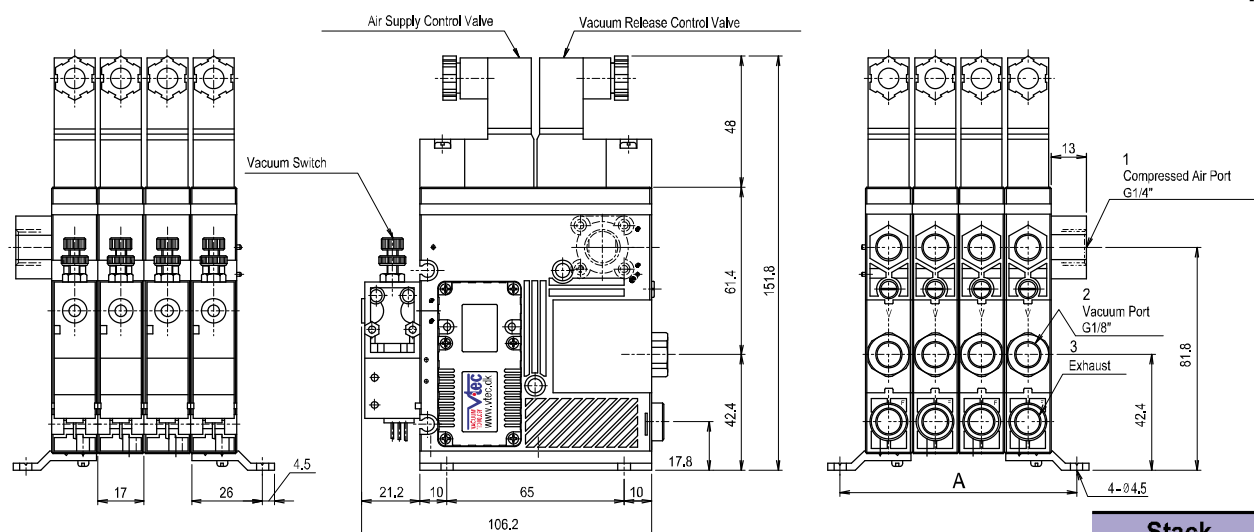
Control valve Connector type / Mechanical vacuum switch



Manifold unit

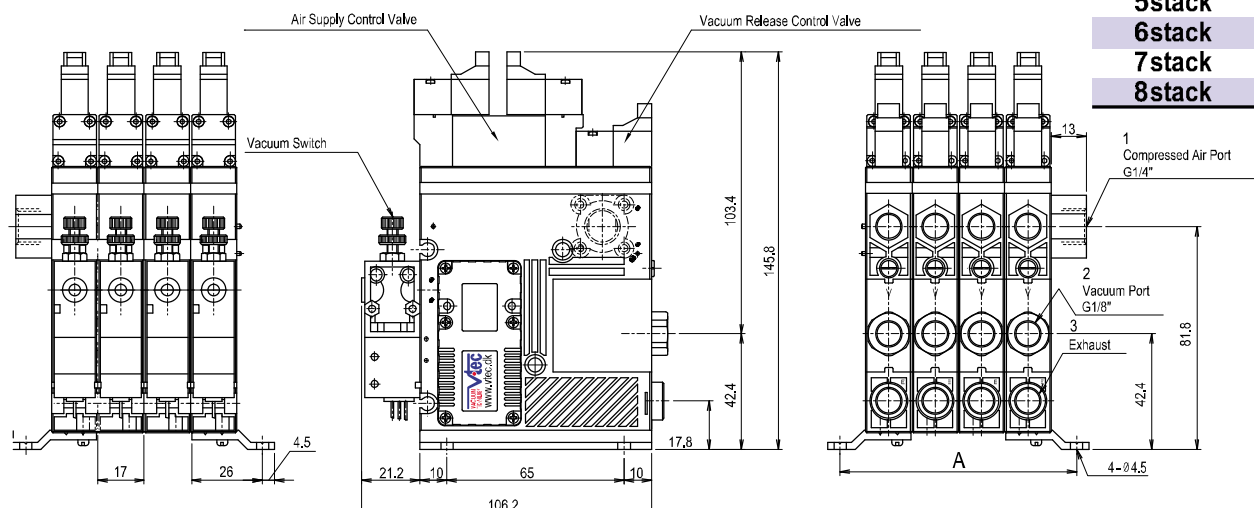
Control valve DIN type / Mechanical vacuum switch

Measure unit : [mm]



Manifold unit

Control valve double solenoid type / Mechanical vacuum switch

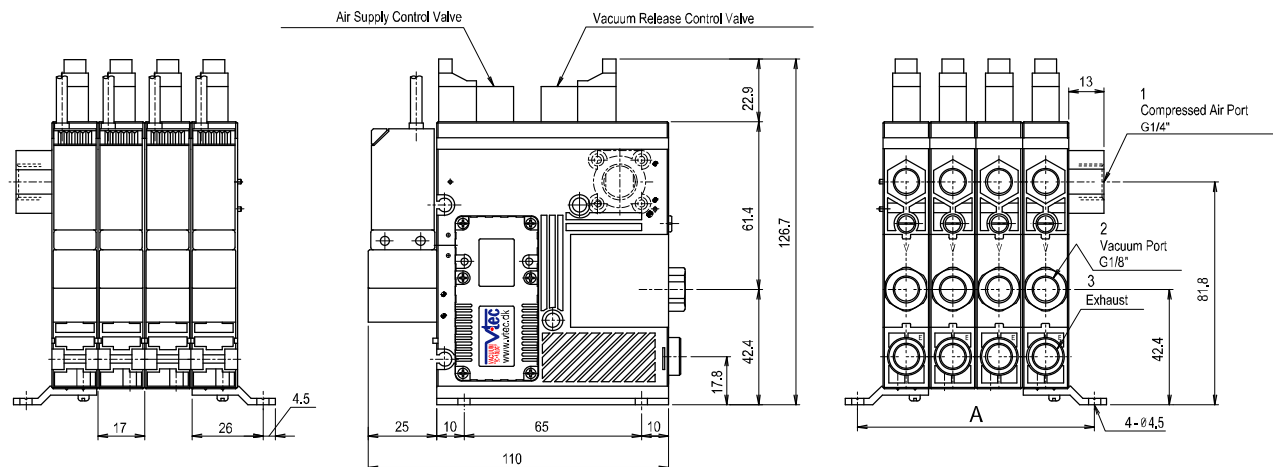


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Dimensional Information

Manifold unit

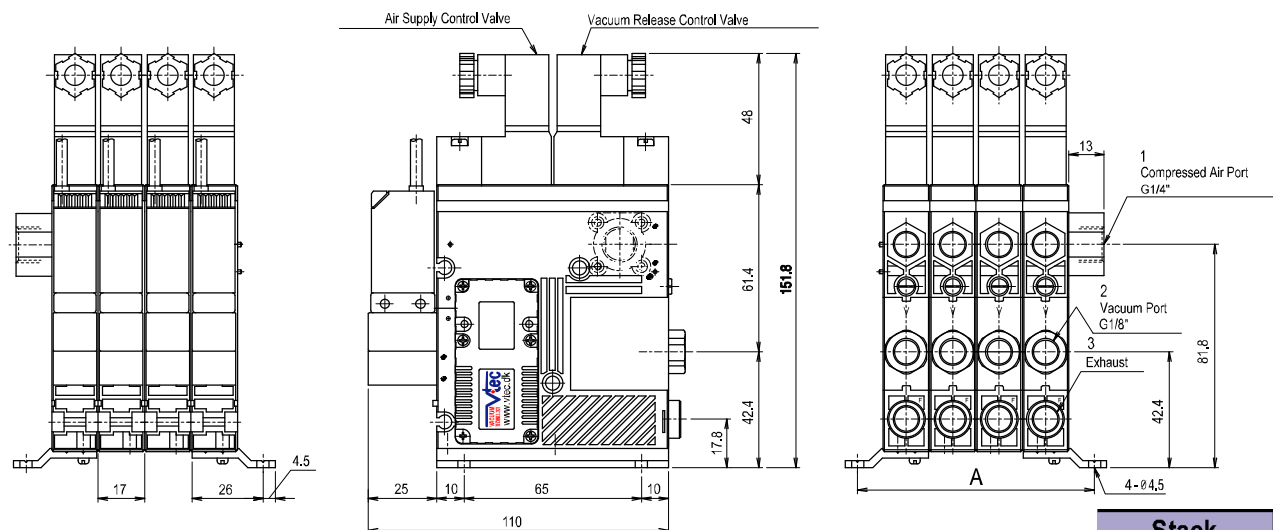
Control valve Connector type / Flashing lamp display vacuum switch



Manifold unit

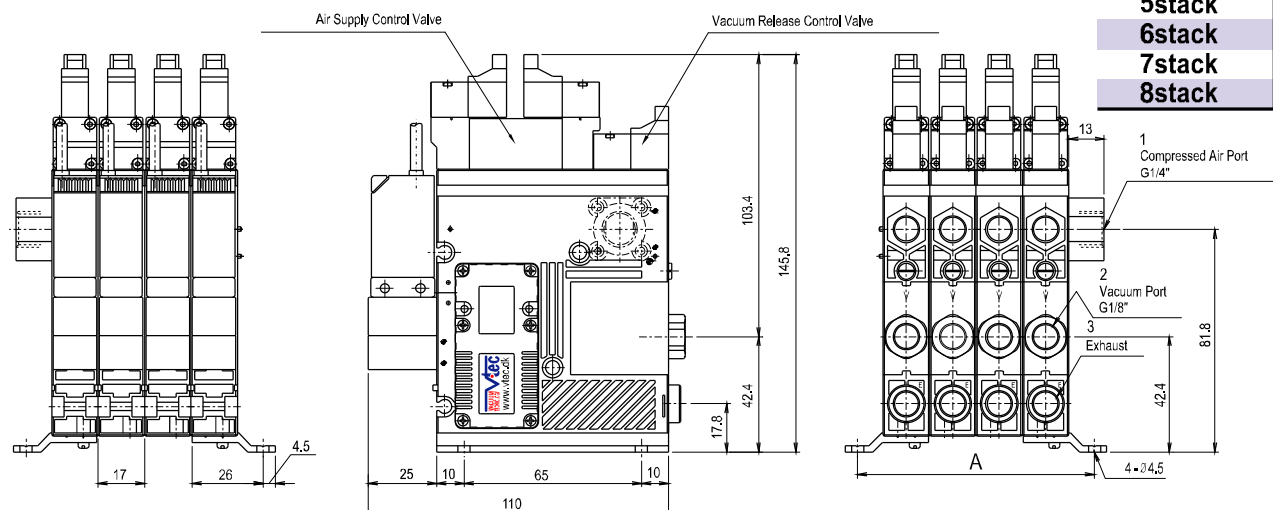
Control valve DIN type / Flashing lamp display vacuum switch

[Measure unit : mm]



Manifold unit

Control valve double solenoid type / Flashing lamp display vacuum switch

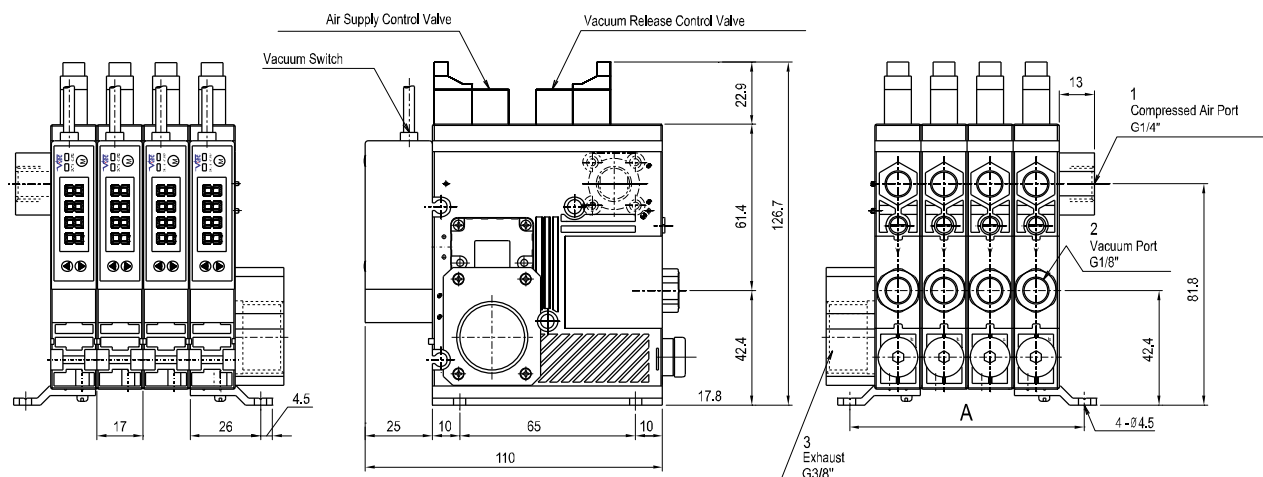


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Dimensional Information

Manifold unit with central exhaust

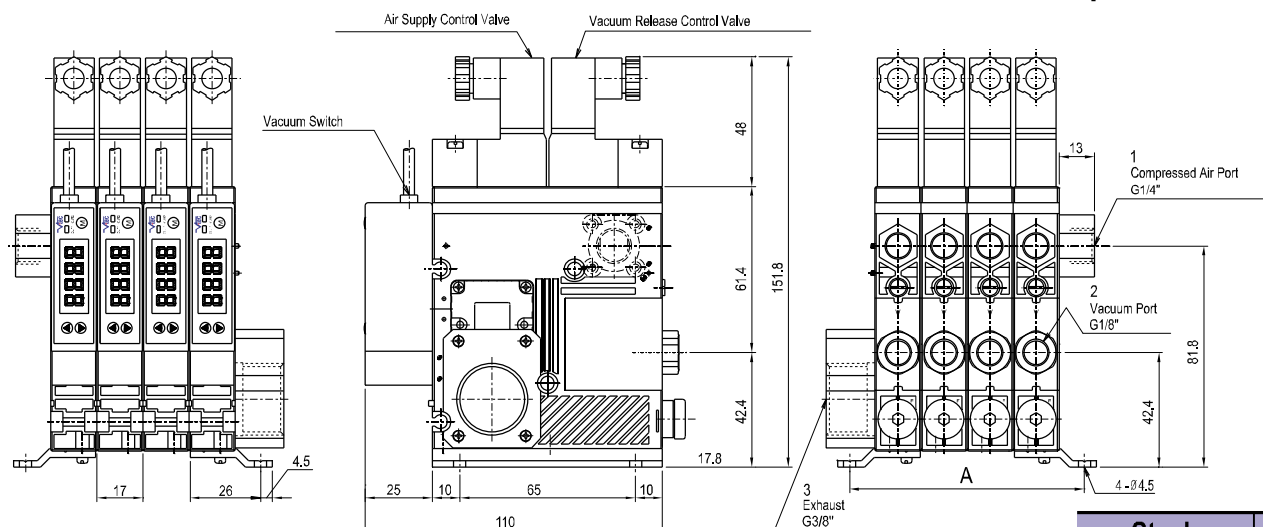
Control valve Connector type / Digital vacuum switch



Manifold unit with central exhaust

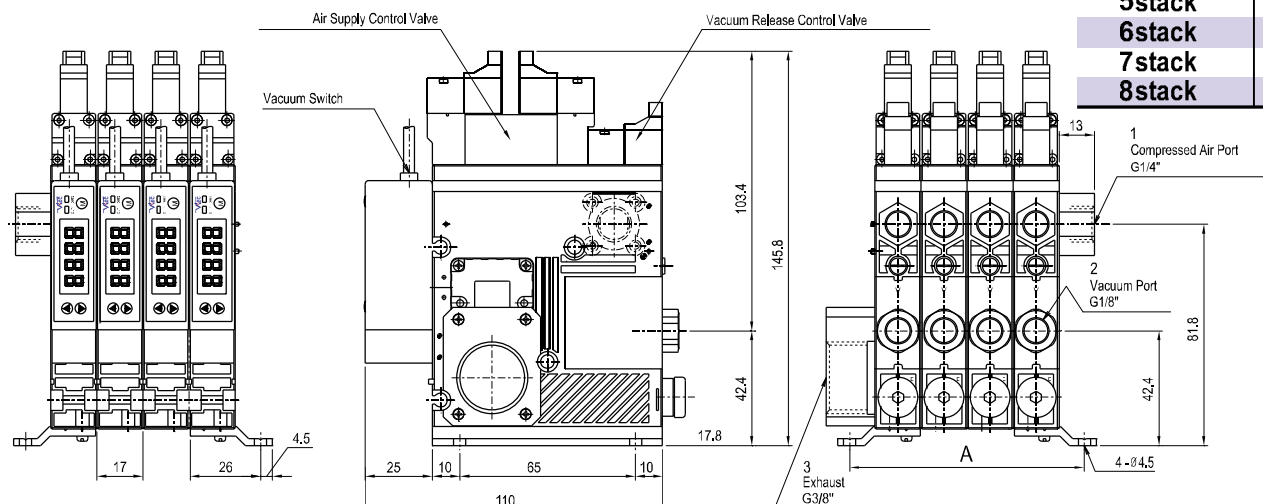
Control valve DIN type / Digital vacuum switch

[Measure unit : mm]



Manifold unit with central exhaust

Control valve double solenoid type / Digital vacuum switch

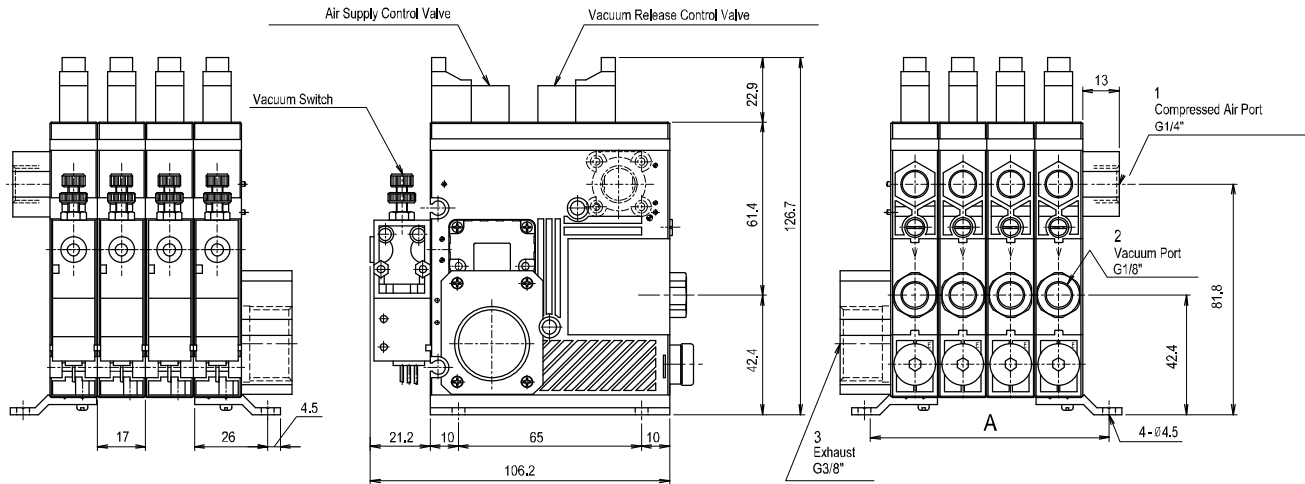


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Dimensional Information

Manifold unit with central exhaust

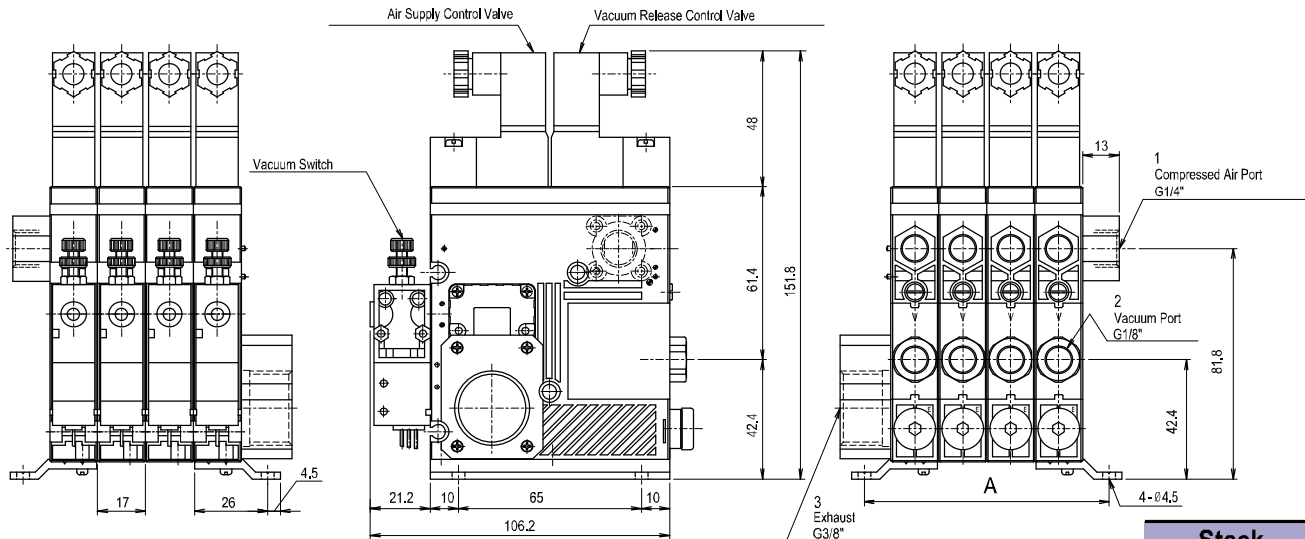
Control valve Connector type / Mechanical vacuum switch



Manifold unit with central exhaust

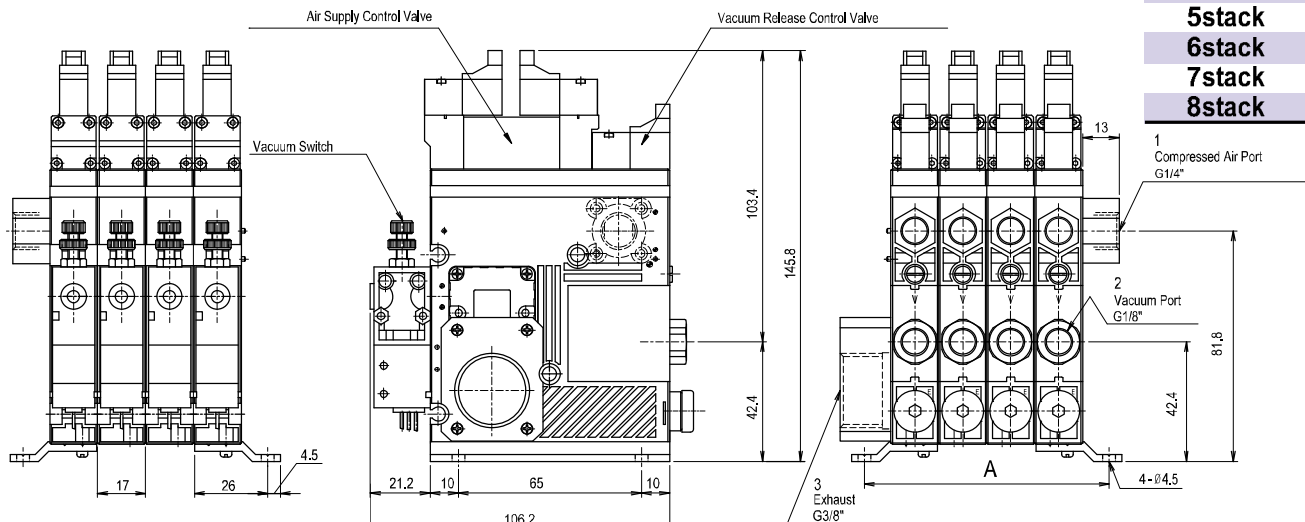
Control valve DIN type / Mechanical vacuum switch

[Measure unit : mm]



Manifold unit with central exhaust

Control valve double solenoid type / Mechanical vacuum switch

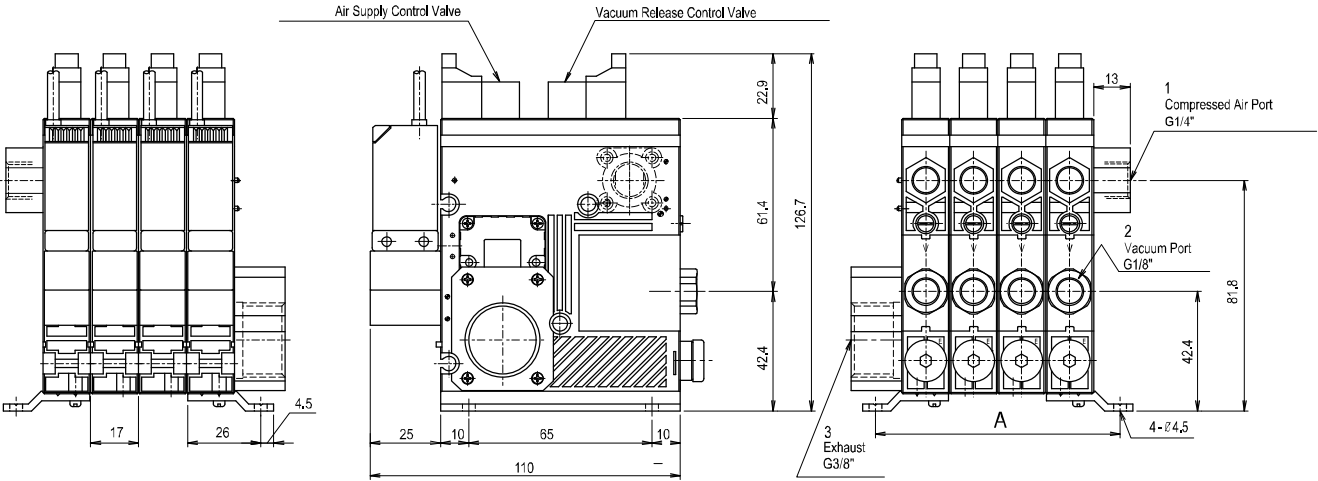


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Dimensional Information

Manifold unit with central exhaust

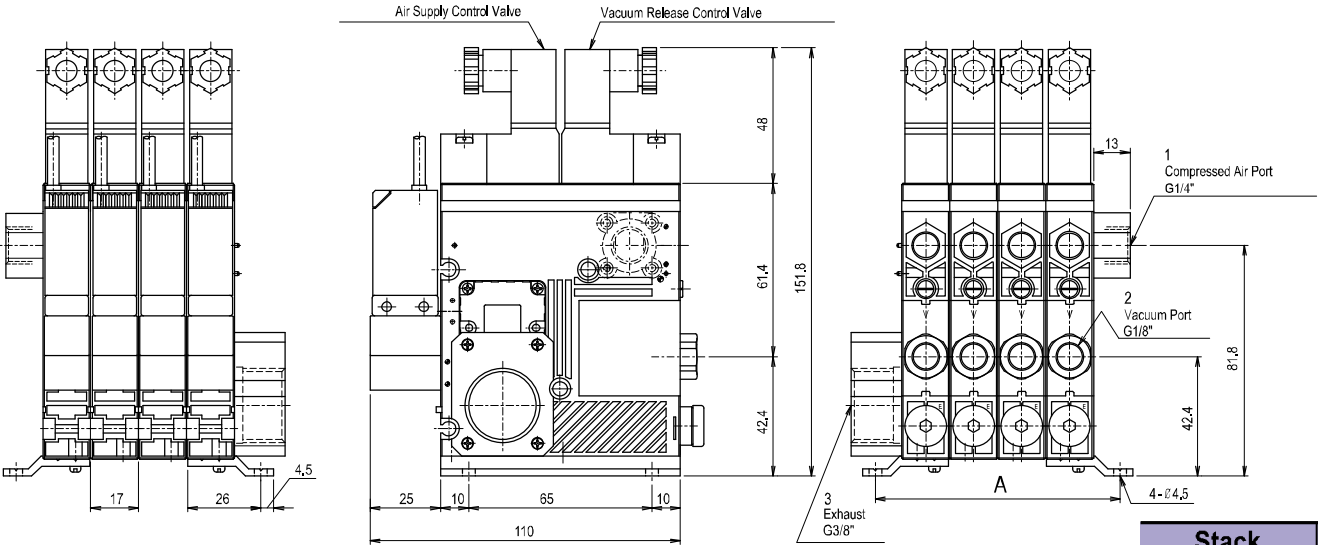
Control valve Connector type / Flashing lamp display vacuum switch



Manifold unit with central exhaust

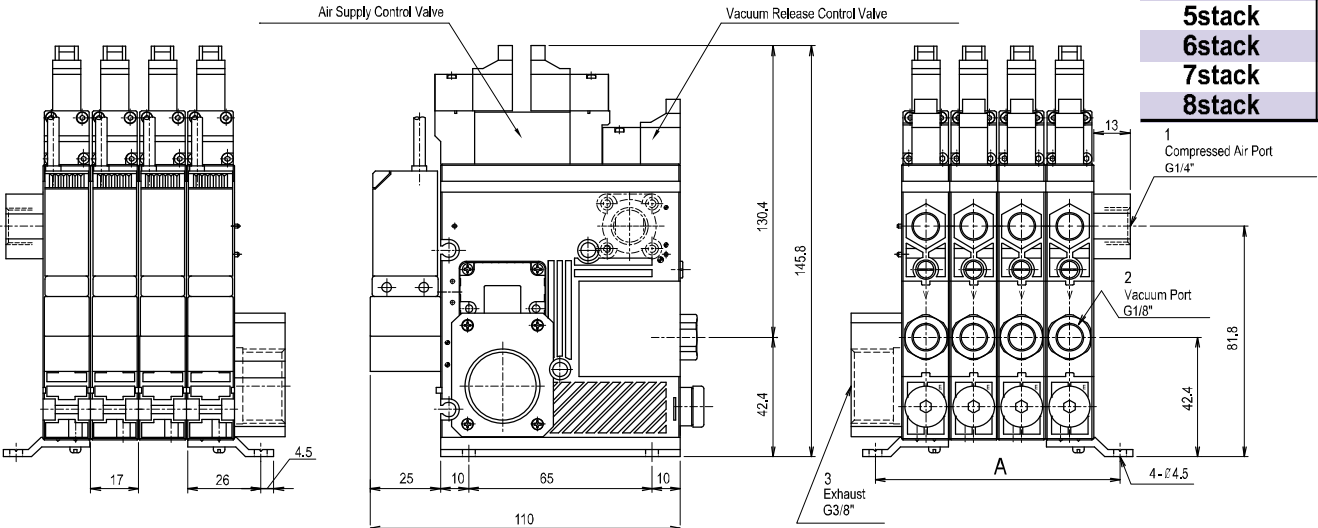
Control valve DIN type / Flashing lamp display vacuum switch

[Measure unit : mm]



Manifold unit with central exhaust

Control valve double solenoid type / Flashing lamp display vacuum switch



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