

## Eco Keyboard Pump

### Features and Strengths

- Built-in Air-Saving (AS) function integrated digital vacuum switch
- Multi stage ejector.
- Integrated filter with high dirt capacity & Auto-cleaning system.
- Available up to 8 multi-stacks vacuum system.



### Specifications

Description	VKM5...AS	VKM61...AS	VKM62...AS	VKM73...AS	VKM74...AS
Max. Vacuum level	-85 kPa	-85 kPa	-85 kPa	-85 kPa	-85 kPa
Open Vacuum flow	26 NI/min	37 NI/min	74 NI/min	111 NI/min	135 NI/min
Max. Feed pressure	7 bar				
Temperature	-20 ~ 80 °c				
Noise level	50 ~ 65 dBA				
Weight	96g	213.5g	213.5g	212g	212g

Description	VKX5...AS	VKX61...AS	VKX62...AS	VKX73...AS	VKX74...AS
Max. Vacuum level	-92 kPa	-92 kPa	-92 kPa	-92 kPa	-92 kPa
Open Vacuum flow	23 NI/min	31 NI/min	62 NI/min	94 NI/min	109 NI/min
Max. Feed pressure	7 bar				
Temperature	-20 ~ 80 °c				
Noise level	50 ~ 65 dBA				
Weight	96g	213.5g	213.5g	212g	212g

### Vacuum Flow

Model	Max. vacuum (-kPa)	Vacuum flow (NI/min) at different vacuum levels (-kPa)									
		0	10	20	30	40	50	60	70	80	90
VKM5...AS	85	26	15	12	11	10	8	5.5	2.8	0.7	-
VKX5...AS	92	23	12	8	7	6	5	4	2.7	1.2	0.45
VKM61...AS	85	37	26	16	14	10	8	6	2.7	0.66	-
VKX61...AS	92	31	18	9	8	7	5	4	2.7	1.2	0.46
VKM62...AS	85	74	52	31	28	20	16	12	4.8	1.32	-
VKX62...AS	92	62	36	18	16	13	11	9	5.4	2.4	0.9
VKM73...AS	85	111	78	47	42	30	24	18	7.2	1.98	-
VKX73...AS	92	94	54	27	24	21	17	13.5	9	3.6	1.35
VKM74...AS	85	135	99	62	54	40	32	24	9.6	2.64	-
VKX74...AS	92	109	72	35	32	27	22	18	12	4.8	1.8

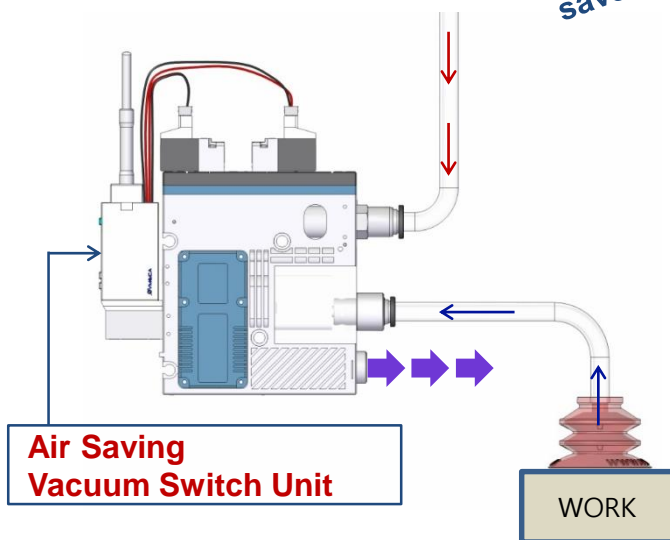
## Evacuation Time

Model	Air Consumption (-kPa)	Evacuation time in sec / liter to reach different vacuum levels (-kPa)								
		10	20	30	40	50	60	70	80	90
VKM5...AS	21	0.22	0.56	1.18	1.58	2.36	3.44	5.27	10.22	-
VKX5...AS	22	0.26	0.80	1.52	2.4	3.38	4.91	6.89	10.16	19
VKM61...AS	15 ~ 21	2.22	0.56	1	1.58	2.36	3.44	5.27	10.22	-
VKX61...AS	21 ~ 24	0.26	0.80	1.52	2.4	3.56	4.91	6.9	10.16	19.2
VKM62...AS	30 ~ 42	0.11	0.28	0.5	0.79	1.18	1.72	2.64	5.16	-
VKX62...AS	43 ~ 48	0.13	0.40	0.76	1.2	1.78	2.46	3.45	5.08	9.55
VKM73...AS	40 ~ 58	0.08	0.21	0.38	0.59	0.88	1.29	1.98	3.87	-
VKX73...AS	49 ~ 66	0.1	0.3	0.57	0.9	1.34	1.84	2.58	3.81	7.2
VKM74...AS	54 ~ 78	0.05	0.14	0.25	0.39	0.59	0.86	1.32	2.58	-
VKX74...AS	66 ~ 88	0.06	0.2	0.38	0.6	0.89	1.23	1.72	2.54	4.8

## Air Saving Vacuum Switch Unit

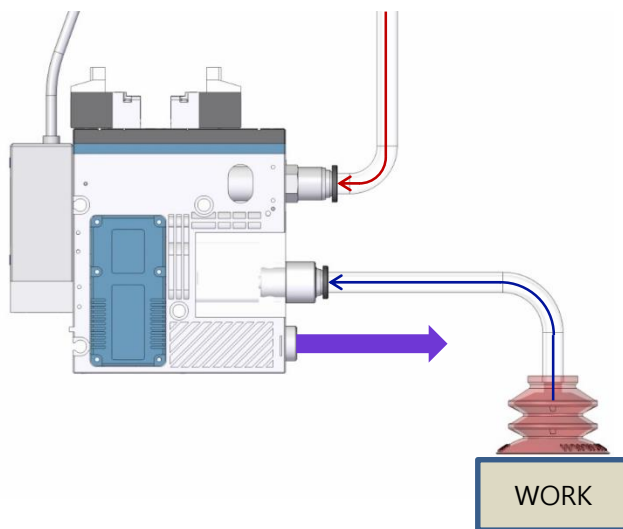
- When vacuum signal is on by Air saving control unit, valve On/Off function is automatically operated within setting value range

### Air Saving Vacuum Switch Unit



*Air saving can save air up to 90%*

### Standard vacuum switch



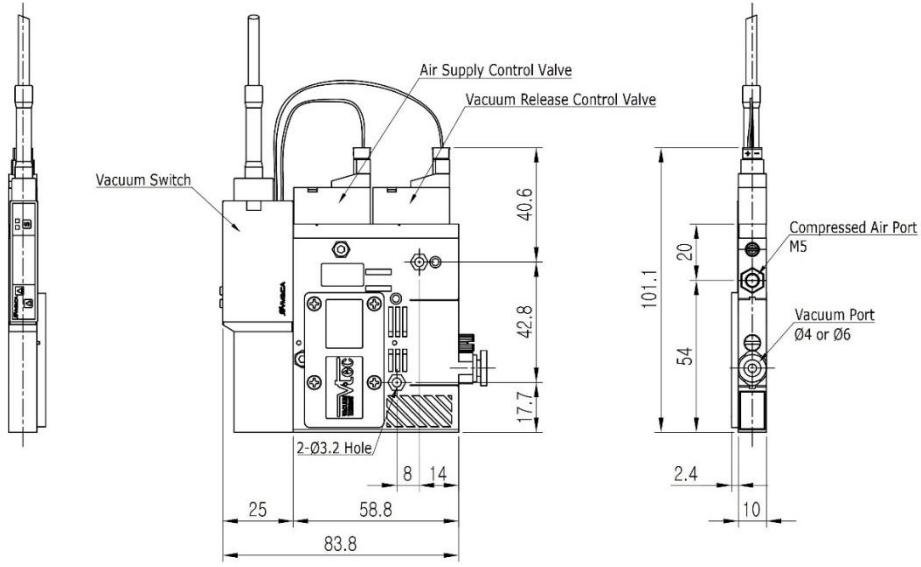
✓ Air is cut off when suction work, and air is consumed only when vacuum pressure decreases.

✓ Air consumes continuously when vacuum works.

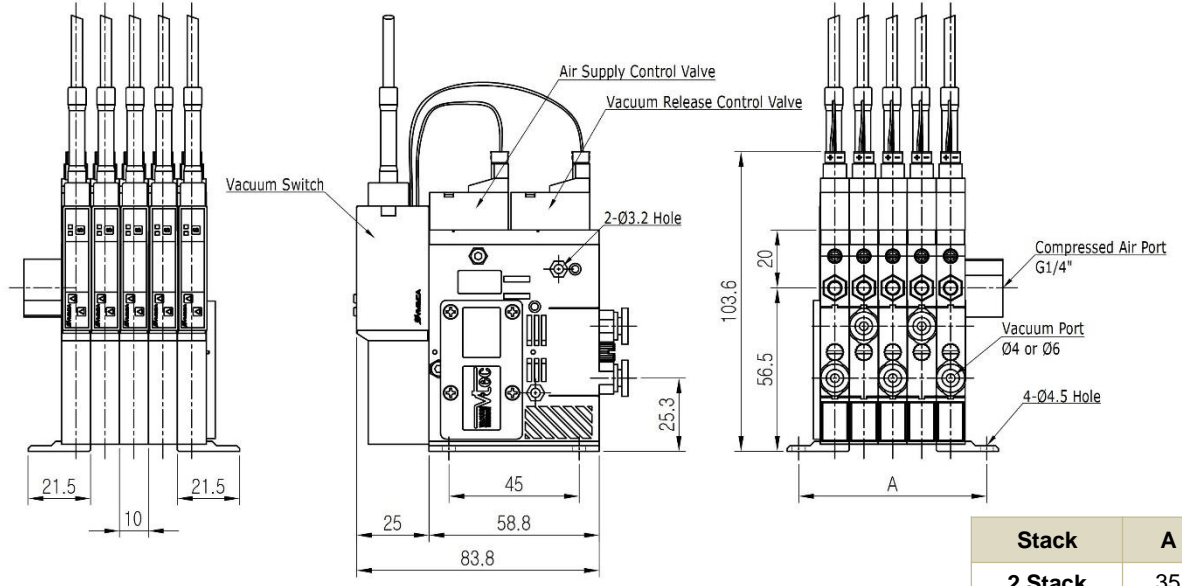
## Dimensions – Mini Keyboard Pump

[ Unit : mm ]

### Single Unit



### Manifold Unit



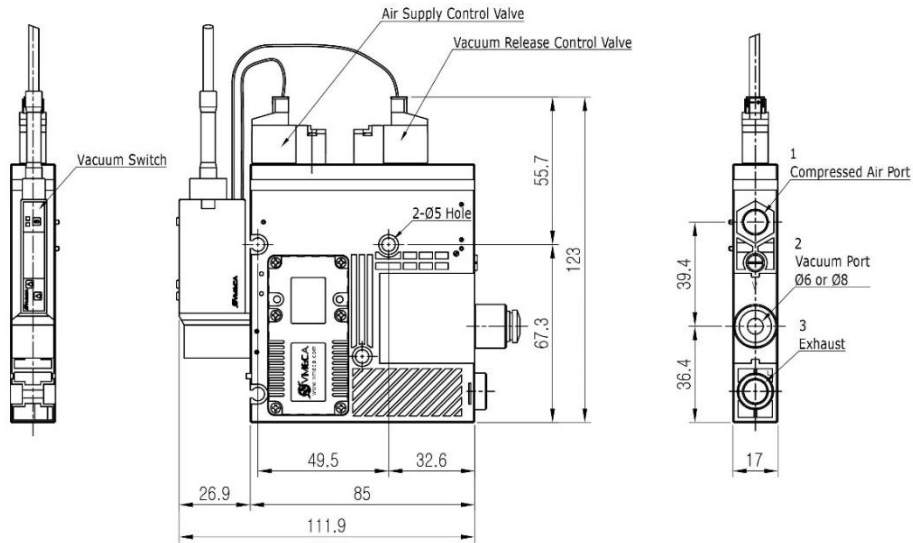
Stack	A
2 Stack	35
3 Stack	45
4 Stack	55
5 Stack	65
6 Stack	75
7 Stack	85
8 Stack	95
9 Stack	105
10 Stack	115

[Unit : mm]

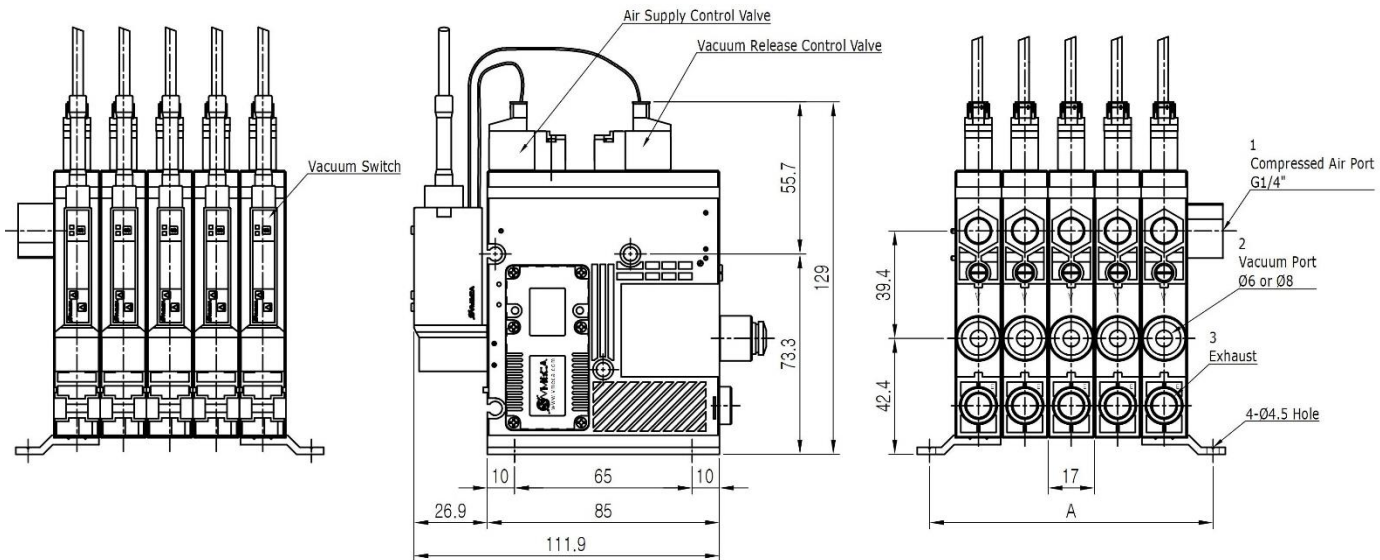
## Dimensions – Midi Keyboard Pump

[ Unit : mm ]

### Single Unit – Control Valve Connector Type



### Manifold Unit – Control Valve Connector Type



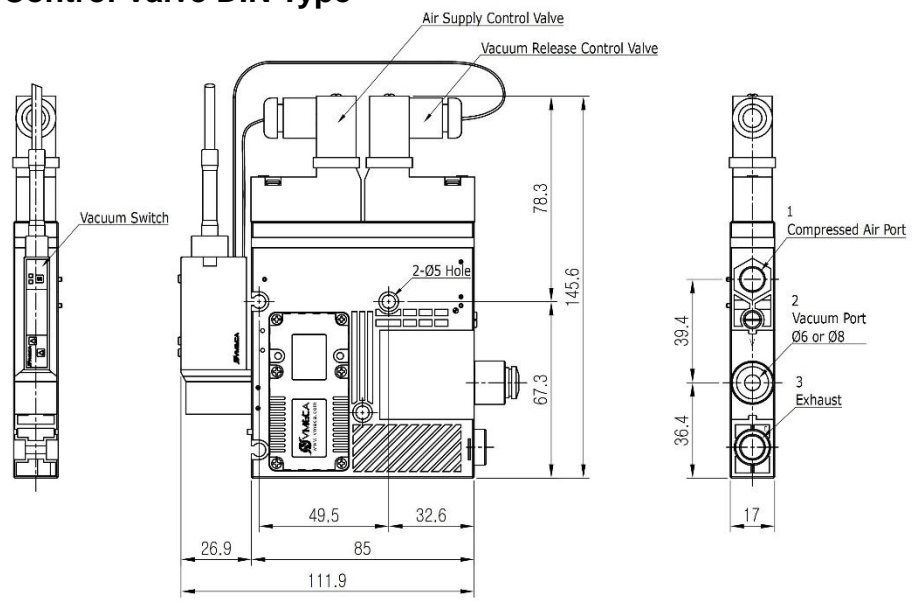
Stack	A
2 Stack	52.8
3 Stack	69.8
4 Stack	86.8
5 Stack	103.8
6 Stack	120.8
7 Stack	137.8
8 Stack	154.8

[Unit : mm]

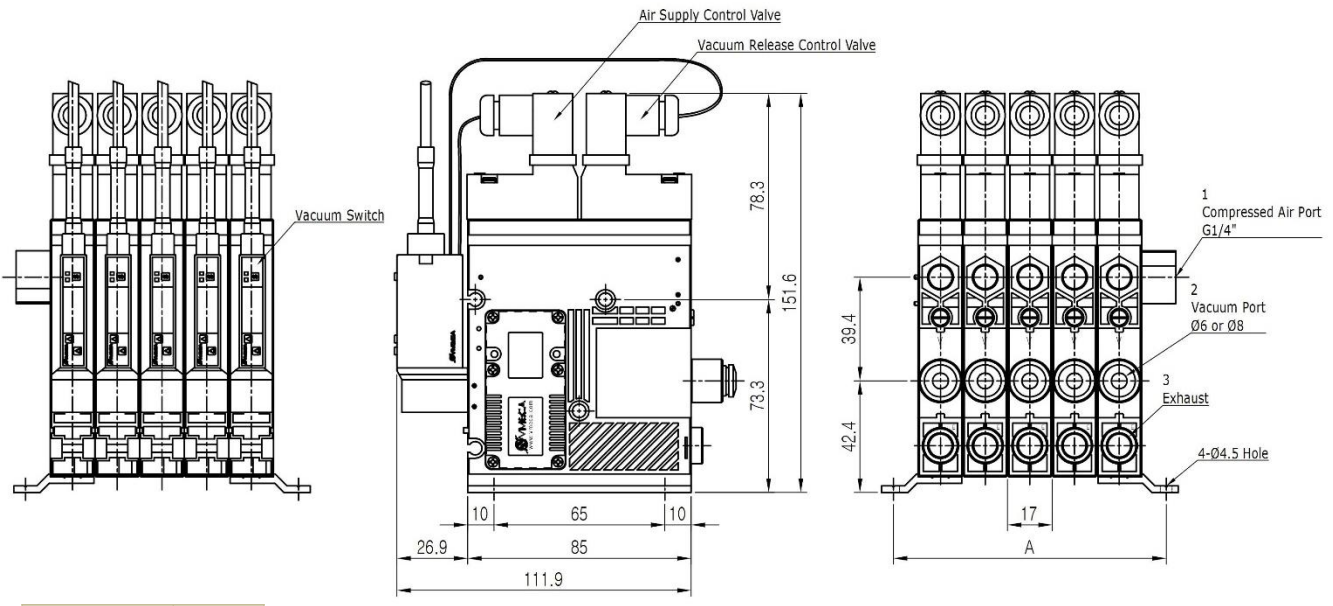
## Dimensions – Midi Keyboard Pump

[ Unit : mm ]

### Single Unit – Control Valve DIN Type



### Manifold Unit – Control Valve DIN Type



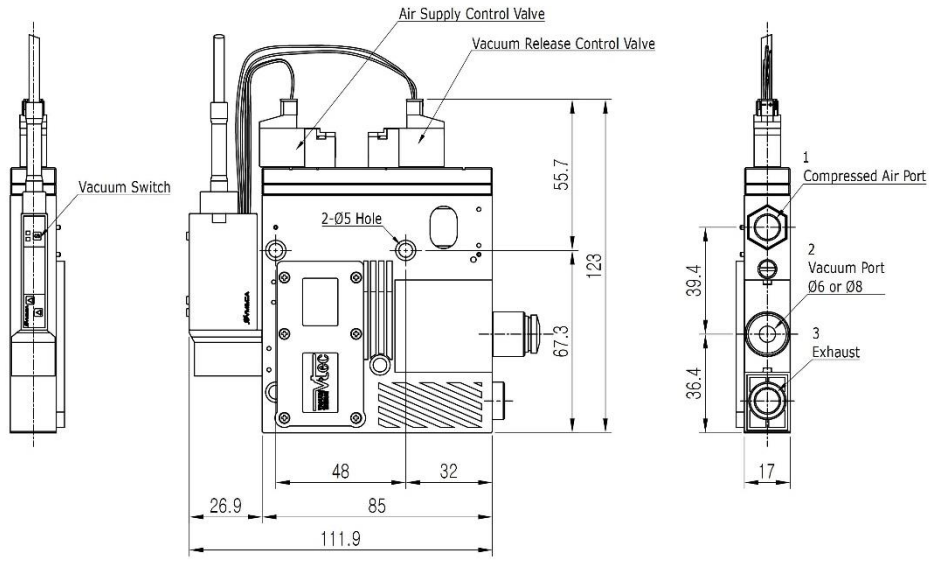
Stack	A
2 Stack	52.8
3 Stack	69.8
4 Stack	86.8
5 Stack	103.8
6 Stack	120.8
7 Stack	137.8
8 Stack	154.8

[Unit : mm]

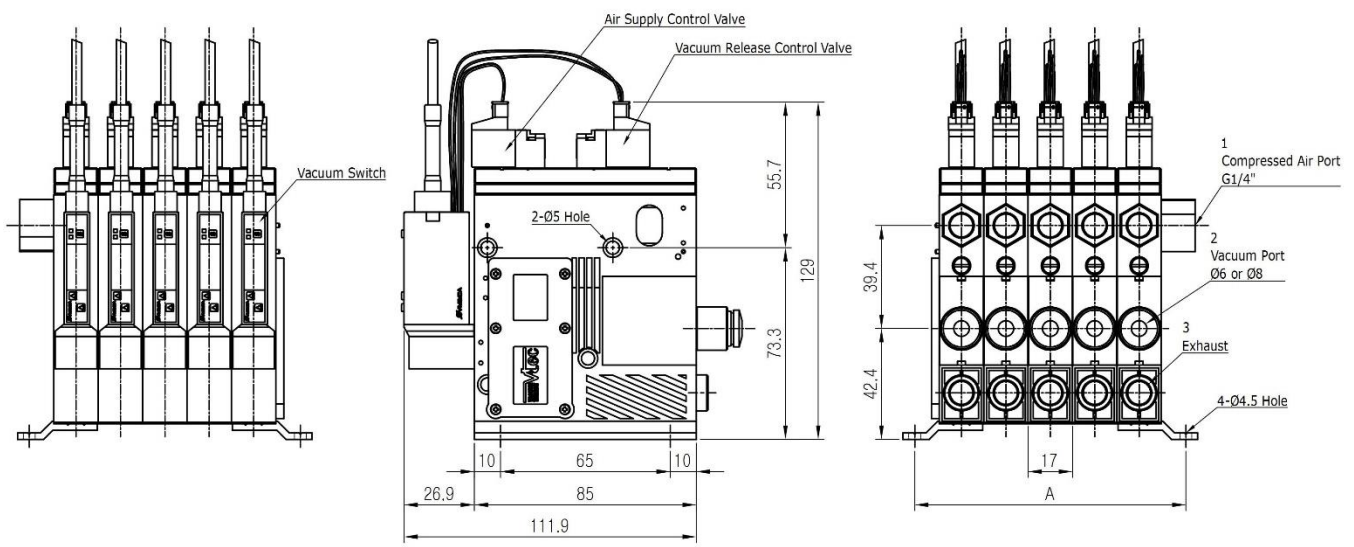
## Dimensions – Mega Keyboard Pump

[ Unit : mm ]

### Single Unit – Control Valve Connector Type



### Manifold Unit – Control Valve Connector Type



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

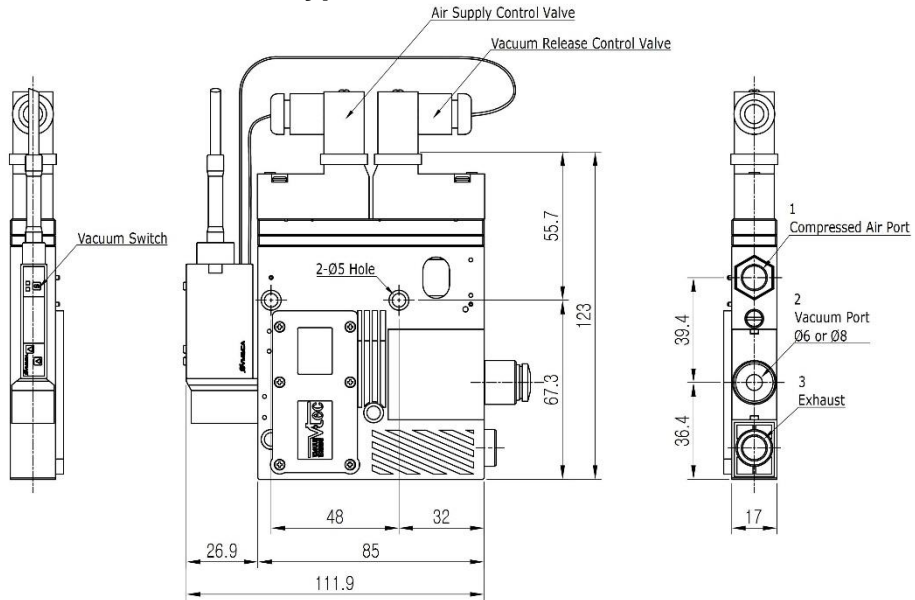
[Unit : mm]



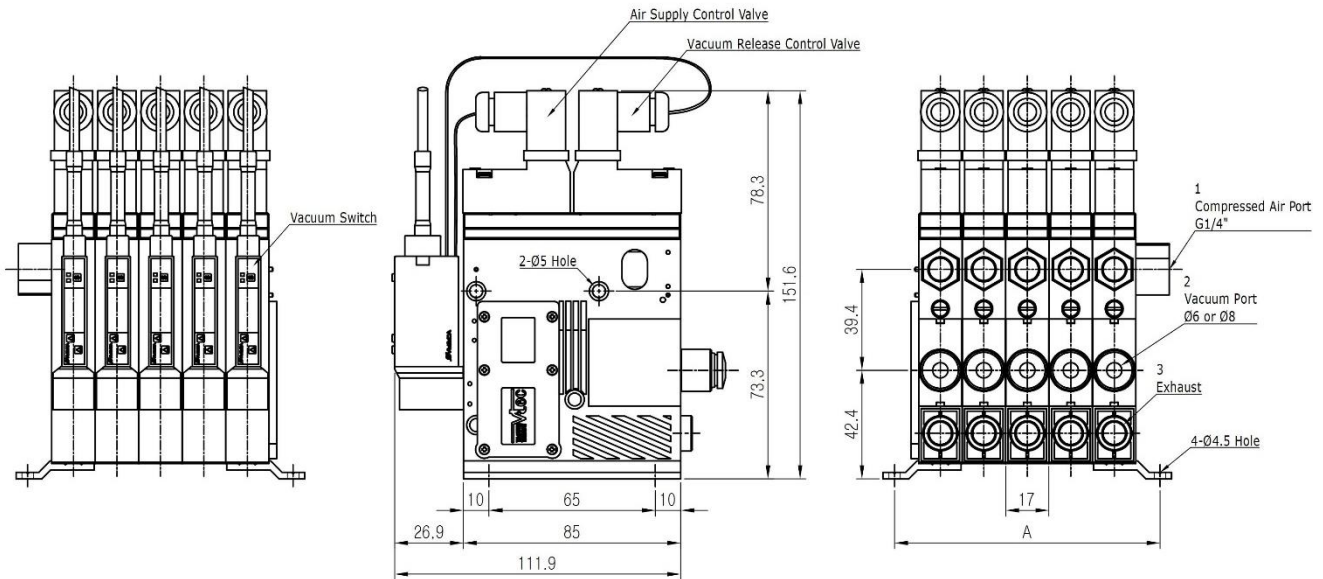
## Dimensions – Mega Keyboard Pump

[ Unit : mm ]

### Single Unit – Control Valve DIN Type



### Manifold Unit – Control Valve DIN Type

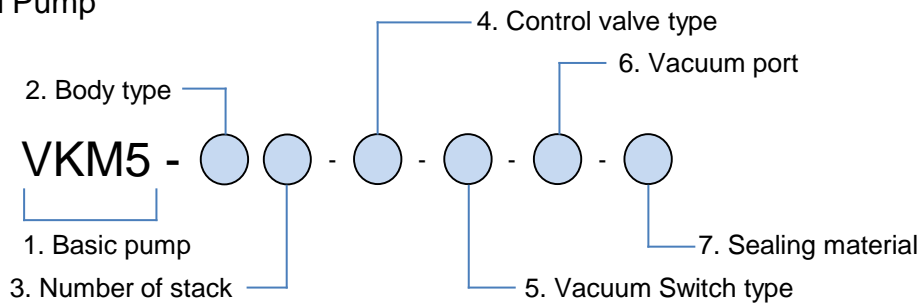


Stack	A
2 Stack	52.8
3 Stack	69.8
4 Stack	86.8
5 Stack	103.8
6 Stack	120.8
7 Stack	137.8
8 Stack	154.8

[Unit : mm]

## Build an Ordering No.

### Mini Keyboard Pump

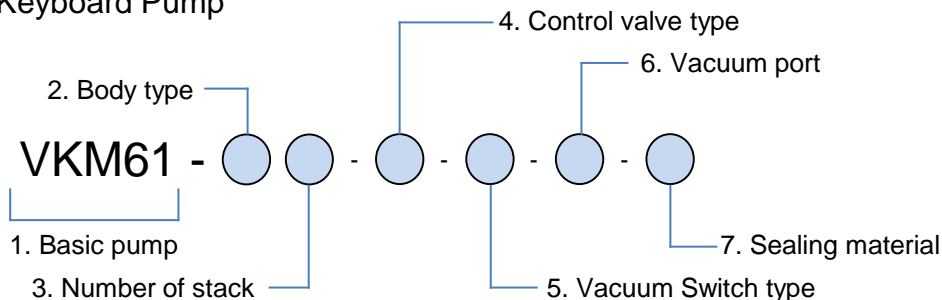


1. Basic pump	Description	Symbol
	Mini Keyboard pump – “X” Type	VKX5
	Mini Keyboard pump – “M” Type	VKM5
2. Body type	Description	Symbol
	Single Unit	S
	Manifold Unit	M
	Manifold Unit with central exhaust type	E
3. Number of stack	Description	Symbol
	Single stack	1
	2 stacks	2
	3 stacks	3
	4 stacks	4
	5 stacks	5
	6 stacks	6
	7 stacks	7
	8 stacks	8
	9 stacks	9
	10 stacks	10
4. Control valve type	Description	Symbol
	Air Control Valve, Vacuum Release Valve : N.C(Normal Closed), Connector type	AC
	Air Control Valve, Vacuum Release Valve : N.O(Normal Open), Connector type	BC
	Air Control Valve, Vacuum Release Valve : N.C(Normal Closed), DIN type	AD
	Air Control Valve, Vacuum Release Valve : N.O(Normal Open), DIN type	BD
5. Vacuum switch	Description	Symbol
	Digital Vacuum Switch, Air Saving, NPN	AS
	Digital Vacuum Switch, Air Saving, PNP	ASP
6. Vacuum port	Description	Symbol
	Ø4 hose fitting	4
	Ø6 hose fitting	6
7. Sealing material	Description	Symbol
	NBR	Blank
	VITON	V
	EPDM	E



## Build an Ordering No.

### Midi / Mega Keyboard Pump



1. Basic pump	Description	Symbol
	Midi Keyboard pump – “X” Type	VKX61
	Midi Keyboard pump – “M” Type	VKM61
	Midi Keyboard pump – “X” Type	VKX62
	Midi Keyboard pump – “M” Type	VKM62
	Mega Keyboard pump – “X” Type	VKX73
	Mega Keyboard pump – “M” Type	VKM73
	Mega Keyboard pump – “X” Type	VKX74
	Mega Keyboard pump – “M” Type	VKM74
2. Body type	Description	Symbol
	Single Unit	S
	Manifold Unit	M
	Manifold Unit with central exhaust type	E
3. Number of stack	Description	Symbol
	Single stack	1
	2 stacks	2
	3 stacks	3
	4 stacks	4
	5 stacks	5
	6 stacks	6
	7 stacks	7
	8 stacks	8
4. Control valve type	Description	Symbol
	Air Control Valve, Vacuum Release Valve : N.C(Normal Closed), Connector type	AC
	Air Control Valve, Vacuum Release Valve : N.O(Normal Open), Connector type	BC
	Air Control Valve, Vacuum Release Valve : N.C(Normal Closed), DIN type	AD
	Air Control Valve, Vacuum Release Valve : N.O(Normal Open), DIN type	BD
5. Vacuum switch	Description	Symbol
	Digital Vacuum Switch, Air Saving, NPN	AS
	Digital Vacuum Switch, Air Saving, PNP	ASP
6. Vacuum port	Description	Symbol
	Ø6 hose fitting	6
	Ø8 hose fitting	8
7. Sealing material	Description	Symbol
	NBR	Blank
	VITON	V
	EPDM	E