

# Quick-Fitting Type Ejector Vacuum Generator VG

## Features

- These Vacuum Generator models serve your purpose most efficiently in various combinations of units such as vacuum switch and vacuum release valve.
- The electronic vacuum switch is highly accurate.

## Specification

Fluid admitted	Air	
Service pressure range	35.6~99.6psi	0.25~0.7MPa
Service temperature range	32~140°F	0~50°C
Lubrication	Not required	

## Air supply valve specification

Control method	Pilot-operated poppet type
Power supply	DC24V(Custom-made 12, 6, 5V)
Power consumption	1.7W
Effective cross sectional area	0.00775in. <sup>2</sup> (5mm <sup>2</sup> )
Manual operation	Push type (Non-lock)

## Filter specification

Material	Element	Polyvinyl formal
	Cover	Polycarbonate (clear)
	Body	PBT Containing glass fiber
Filtering accuracy	10μm	
Element ordering code	VGFE 10	

## Vacuum switch specification

Pressure sensing method	Diffusion-type semiconductor pressure switch	
Pressure setting range	0~-29.9in. Hg(0~-100KPa)	
Setting mode	Continuous by trimmer	
Power supply	DC12~24V	
Switch output	Mode	Open collector output max.30V 80mA
	Operation	ON when vacuum is above set-point
	Indication	Red LED lights up during ON
Accuracy	±3%F. S.	
Differential	0.15psi(1KPa) or below (When -15.7in. Hg(-53KPa))	
Response	0.01sec	
Analog output	Standard atmospheric pressure	1VDC
	-29.9in. Hg(-1.0MPa)	5VDC
Pressure setting at shipment	VGH, VGE -15.7in. Hg(-53KPa)	
	VGL -11.8in. Hg(-40KPa)	

## Vacuum breaker valve specification

Control method	Direct operation poppet type
Power supply	DC24V(Custom-made 12,6,5V)
Power consumption	1.7W
Effective cross-sectional area	0.00031in. <sup>2</sup> (0.2mm <sup>2</sup> )
Manual operation	Push type (Non-lock)

Model Designation (Example)



(1) Type (Code: VG)

(2) Vacuum Characteristics

- H : High Vacuum Medium Flow Type
- L : Medium Vacuum Large Flow Type
- E : High Vacuum Small Flow Type

(3) Nozzle dia.

Code	Size	H type, vacuum, suction flow	L type, vacuum, suction flow
05	0.5mm (0.02in.)	-26.8in. Hg(-91KPa) 0.41SCFM(7Nℓ/min)	-19.7in. Hg(-67KPa) 0.42SCFM(12Nℓ/min)
07	0.7mm (0.03in.)	-27.6in. Hg(-93KPa) 0.46SCFM(13Nℓ/min)	-19.7in. Hg(-67KPa) 0.92SCFM(26Nℓ/min)
10	1.0mm (0.04in.)	-27.6in. Hg(-93KPa) 0.95SCFM(27Nℓ/min)	-19.7in. Hg(-67KPa) 1.41SCFM(40Nℓ/min)

Code	Size	E type, vacuum, suction flow
05	0.5mm	—
07	0.7mm	-26.8in. Hg(-91KPa) 0.37SCFM(10.5Nℓ/min)
10	1.0mm	-26.8in. Hg(-91KPa) 0.74SCFM(21Nℓ/min)

\*Supply pressure is 0.5MPa (71.1psi) for H-type and L-type and 0.35MPa (49.8psi) for E-type.

(4) Unit combination

Code	Filter	Vacuum switch
A	○	-
B	○	○
E	○	-
F	○	○

Code	Air supply valve	Vacuum breaker valve
A	-	-
B	-	-
E	○	○
F	○	○

(5) Vacuum port tube dia.

Tube dia.	mm size		in. size	
Code	4	6	5/32	1/4
dia.	φ4	φ6	φ5/32	φ1/4

(6) Air supply port tube dia.

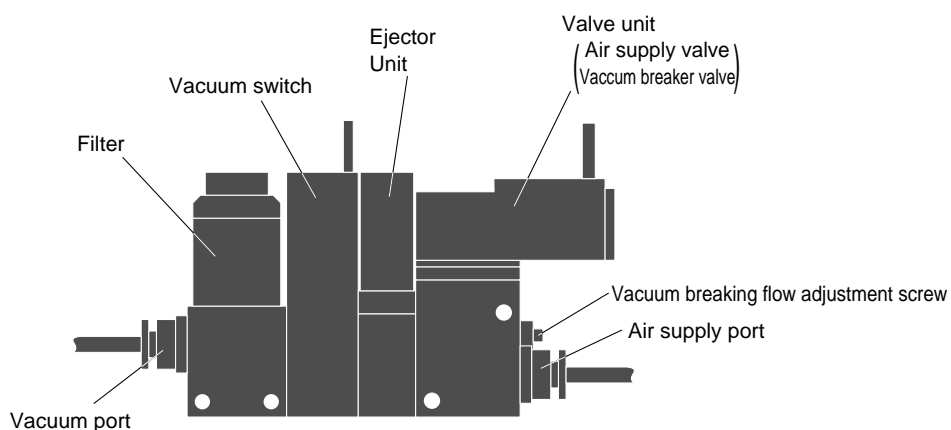
Tube dia.	mm size		in. size	
Code	4	6	5/32	1/4
dia.	φ4	φ6	φ5/32	φ1/4

(7) Voltage unit voltage specification (Unit: E, F type only)

Code	DC24	AC100
Voltage	24VDC	100VAC

(8) Connector lead-out specification (Unit: E, F type only)

Code	S	L
Leadout direction	Lead out from sideways	Leadout from above



**⚠ Detailed safety instruction**

Before using the PISCO device, be sure to read the "Safety Instructions", "Common Safety Instructions for Products Listed in This Manual" on pages 23~24 and "Common Safety Instructions for Vacuum Generator VG and VK Type" on page 405.

**⚠ Caution**

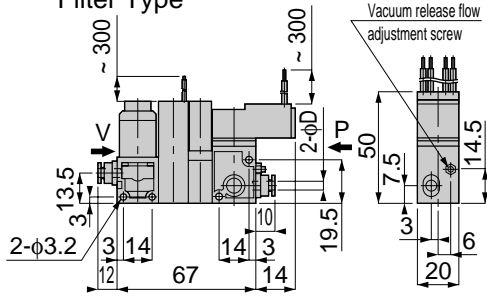
1. Exercise caution when the piping resistance is high or when the Vacuum release flow required is large. Inadequate Vacuum release flow can cause troubles. Confirm the specifications before use.

# Vacuum Series Vacuum Generator VG Type



**VG**  
F TYPE

Built-in Vacuum Switch (Electronic),  
Supply valve, Release valve &  
Filter Type



unit:mm

Model	Tube dia. φD	*1 (mm)	*2 (-KPa)	*3 (Nℓ/min)	*4 (Nℓ/min)	Mass (g)
VGH 05F-44	4	0.5	91(73)	7(6.5)	11.5(9)	124.5
VGH 07F-66	6	0.7	93(71)	13(13)	23(17)	127.5
VGH 10F-66		1	93(71)	27(27)	46(34)	127
VGL 05F-44	4	0.5	67	12	11.5	127
VGL 07F-66	6	0.7		26	23	
VGL 10F-66		1		40	46	126.5
VGE 07F-66	6	0.7	91	10.5	17	127.5
VGE 10F-66		1	21	34		

\*1 Nozzle dia. \*2 Final vacuum \*3 Suction flow \*4 Air consumption



## Circuit diagram

