

PDF Compressor Free Version

Vacuum Generator VLS

Larger sized single-stage vacuum ejectors



Now we offer $\phi 2.0$, $\phi 2.5$, $\phi 2.8$ mm nozzle types

NEW

Three nozzles option



VLS

Suction flow (※)

max. **7.0 SCFM**
or
200 ℓ /min[ANR]

Comparison with the compact vacuum generators



VB



VU/VUM

Nozzle dia.
 $\phi 0.5 \sim \phi 1.2$ mm
Suction flow (※)
max. **0.13** SCFM, or
max. **38** ℓ /min[ANR]

Nozzle dia.
 $\phi 0.3 \sim \phi 0.7$ mm
Suction flow (※)
max. **0.44** SCFM, or
max. **1.25** ℓ /min[ANR]

※) at the rated pressure 72.5psi (0.5MPa) - High vacuum type

- ◆ Boxed type Aluminum body
- ◆ Quiet operation with the cylinder type muffler
- ◆ Pressure gauge and sensor can be installed
- ◆ Simple structure - Easy maintenance



with digital pressure gauge



with pressure sensor

Model Designation (Example)

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⑥. Pressure indicator

Code	Pressure indicator type		
No entry	No pressure indicator (Rc1/8 female thread)		
G	Digital pressure gauge		
NV	Dual LCD Digital Pressure sensor	NPN open collector	SW 2points+Analog outputs
N2			SW 2points outputs+copy function
PV		PNP open collector	SW 2points+Analog outputs
P2			SW 2points outputs+copy function

⑤. Air supply port

Code	04
Female thread	Rc1/2

④. Vacuum port

Code	04
Female thread	Rc1/2

③. Nozzle size

Code	Nozzle dia. (mm)	Final vacuum (kPa)	Suction flow (ℓ/min[ANR])	Air consumption (ℓ/min[ANR])
20	ø2.0	-26.87 inHg (-91)	3.53scfm (100)	8.12scfm (230)
25	ø2.5		5.30scfm (150)	12.18scfm (345)
28	ø2.8		7.06scfm (200)	14.48scfm (410)

②. Characteristic

Code	H
Type	High vacuum

①. Vacuum generator VLS

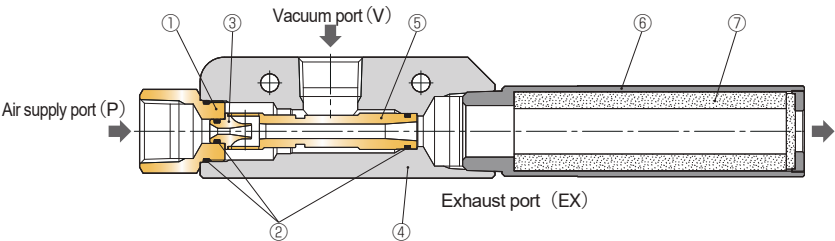
- ※1) Silencer is included in the same box
- ※2) Digital pressure gauge or Dual digital pressure sensor comes in the separate box
- ※3) The indicator port on the vacuum generator is plugged by a screw

Model Designation of Silencer



①. Silencer for VLS vacuum generator

Structure



No.	Parts	Material
①	Nozzle retainer	Brass (Nickel-plated)
②	O - ring	NBR
③	Nozzle	Brass (Nickel-plated) ※1
④	Main body	Aluminum (Anodized)
⑤	Diffuser	Brass
⑥	Silencer	PBT
⑦	Silencer element	PVF

- ※1) No nickel-plating on the ø2.8mm nozzle models
- ※2) The material of the plug screw for the pressure indicator port is steel (chrome-plated).

Specification

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■ VLS vacuum generator

Fluid medium	Air, Inert gas
Service pressure range	21.75~101.5psi (0.15 ~ 0.7MPa)
Rated supply pressure	72.5psi (0.5MPa)
Service Temperature range	32~140°F (0~60°C) (No freezing)

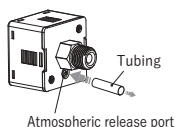
■ Digital pressure gauge

Model	GPD-V-01
Rated pressure range	-101 ~ 0kPa
Pressure indicating range	-101 ~ 10kPa (※1)
Proof pressure	300kPa
Fluid medium	Air, Non-corrosive/Non-flammable gas
Power source	CR2032 Lithium battery
Battery life	about 3 years (based on 5 times displays a day)
Low power indicating function	Included
Battery replacement	Replacable
Display duration	60 seconds from the switch button being pushed
Response time	2Hz (2 times/sec.)
Repeatability	± 1% F.S. ± 1 digit
LCD Display	7-segment display, 3.5-digit
Indicator accuracy	±2% F.S. ± 1 digit or less (ambient temp. at : 25 ± 3°C)
Protective structure	IP65 (※2)
Ambient temp. range	Operating: 0~50°C, Stored: -10~60°C (No dew condensation or freezing)
Ambient humidity range	Operating/Stored : 35~85%RH (No dew condensation)
Vibration proof	Amplitude 1.5mm or 100m/s ² , 10Hz~150Hz~10Hz for one minute, 2hours each direction X, Y, Z
Shock resistance	100m/s ² 3 times each in direction X, Y, Z
Temperature characteristics	±2% F.S. (based on 25°C)

※1) Indicator accuracy is not guaranteed for the pressure range 0 ~ 10kPa

※2) Insert a tubing in to the atmospheric release port to maintain IP65 (Fig. 1)

Fig. 1



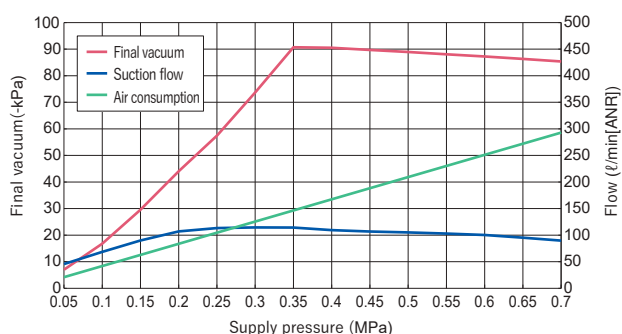
■ Pressure sensor

Model		VUS-32R	
Rated pressure range		-100.0 ~ 100.0kPa	
Proof pressure		300kPa	
Fluid medium		Air, Non-corrosive/Inert gas	
Power source		DC12V ~ 24V (Ripple ±10% or below)	
Electrical consumption		40mA or below (no-load condition)	
SW output	Switch output	NPN open collector	PNP open collector
	Max. current load	125mA	
	Max. supply voltage	DC30V	DC24V
	Residual voltage	1.5V or less	
Repeatability		±0.2% F.S. ±1 digit or below	
Hysteresis	One point set mode	Adjustable (※)	
	Hysteresis mode		
	Window comparator mode		
Response		2.5ms or less (Chattering-proof: 25ms, 100ms, 250ms, 500ms, 1000ms, 1500ms selectins)	
Output short circuit protection		Yes	
Digital display		3 colors (Red, Green, Orange) display (Sampling rate: 5times/sec)	
Indicator accuracy		±2% F.S. ±1 digit or less (at Ta=25 ±3°C)	
Switch On indicator		Orange 1 & 2 indicator	
Analog output (Voltage output)		Output voltage: 1~5V ±2.5% F.S. or less (within rated pressure range) Linearity : ±1% F.S. or less, output impedance 1kΩ	
Resistance	Protective structure	IP40	
	Ambient temp. range	Operating: 0~50°C, Stored: -10~60°C (No condensation or freezing)	
	Ambient humidity range	Operating/Stored : 35~85%RH (No condensation)	
	Withstand voltage	1000VAC for one minute (Between housing and lead wire)	
	Insulation resistance	50MΩ or above (DC500V) (Between housing and lead wire)	
	Vibration proof	Amplitude 1.5mm or 100m/s ² 、 10Hz~150Hz~10Hz for one minute, 2hours each direction X,Y,Z	
	Shock resistance	100m/s ² 3 times each in direction X, Y, Z	
Temperature characteristics		±2.5% F.S. or less (at Ta=25°C, at temp. range 0 ~ +50°C)	
Cable		Oil-resistance cable (0.15mm ²)	

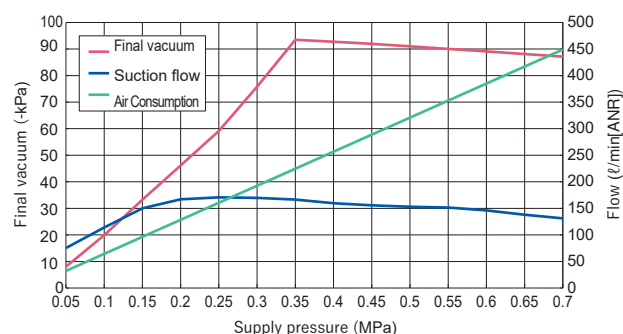
※) Hysteresis value is adjustable within 1~8 digits for one point set mode and window comparator mode

Characteristics

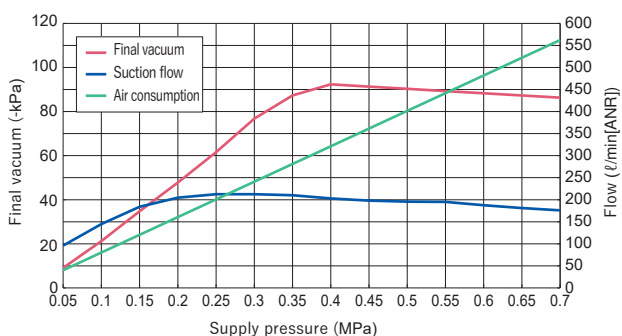
■ VLSH20 vacuum characteristics



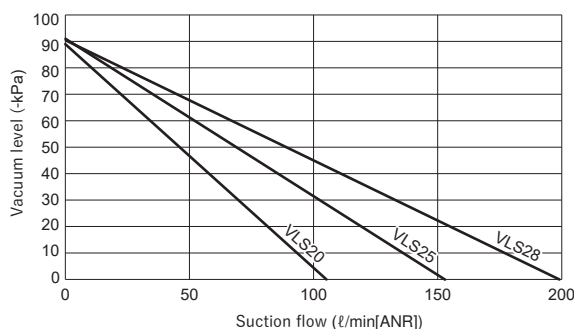
■ VLSH25 vacuum characteristics



■ VLSH28 vacuum characteristics



■ Flow characteristics

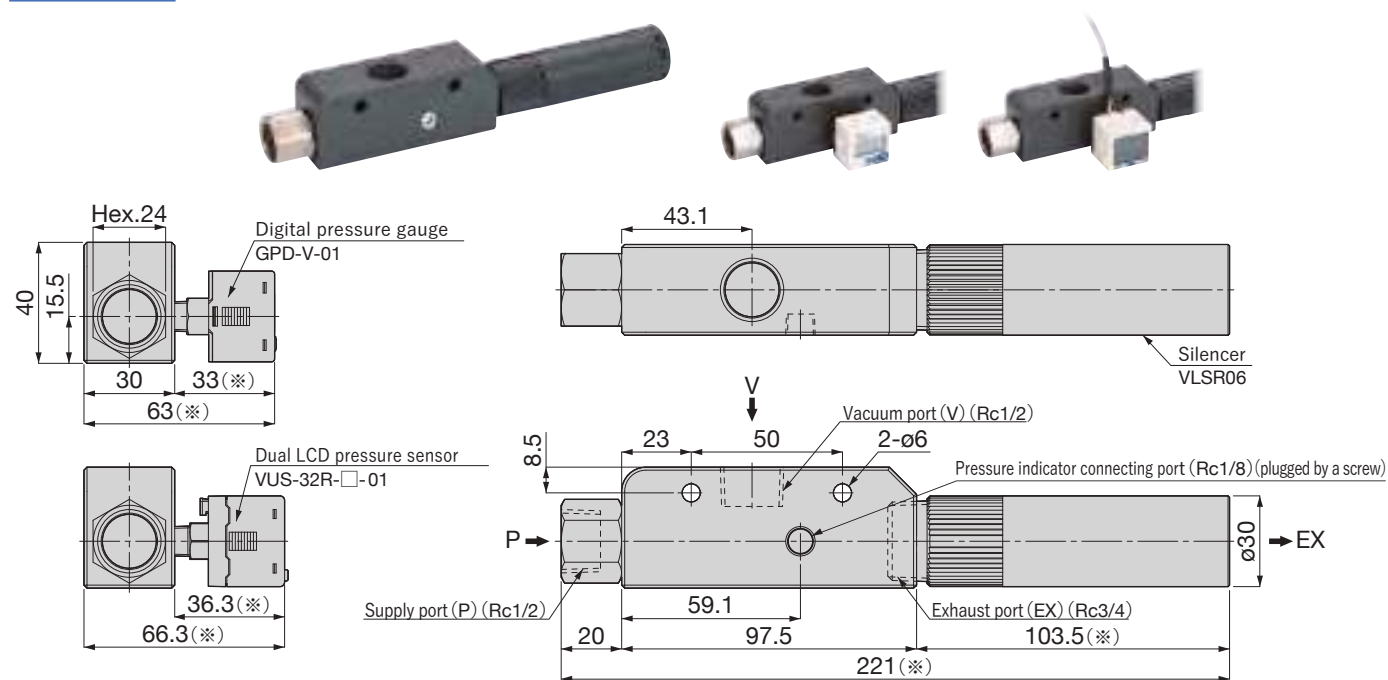


Vacuum generator VLS

Dimensions

Unit : mm

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VLSH Vacuum Generator



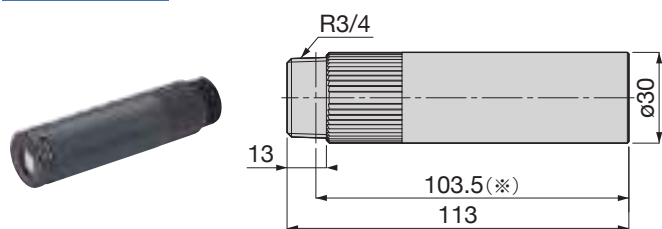
※) Length with the silencer being installed

Model	Weight (g)	Price (\$)
VLSH20-0404	344	193.00
VLSH20-0404-G	381	218.45
VLSH20-0404-NV	424	263.91
VLSH20-0404-N2		
VLSH20-0404-PV		
VLSH20-0404-P2		

Model	Weight (g)	Price (\$)
VLISH25-0404	341	203.00
VLISH25-0404-G	378	228.45
VLISH25-0404-NV	421	273.91
VLISH25-0404-N2		
VLISH25-0404-PV		
VLISH25-0404-P2		

Model	Weight (g)	Price (\$)
VLSH28-0404	338	204.00
VLSH28-0404-G	375	229.45
VLSH28-0404-NV	418	284.91
VLSH28-0404-N2		
VLSH28-0404-PV		
VLSH28-0404-P2		

VLSR Silencer



※) Length after installation

Model	Weight (g)	Price (\$)
VLSR06	34	56.00

Gauge/Switch

GPD Digital Pressure Gauge

for vacuum



Model	Price (\$)
GPD-V-01	25.45

VUS-32 Dual LCD Digital Pressure Sensor

Compound pressure type



Model	Price (\$)
VUS-32R-NV-01	70.91
VUS-32R-N2-01	70.91
VUS-32R-PV-01	70.91
VUS-32R-P2-01	70.91