

KVP

Venturi Vacuum Pumps

Mini Series



Features

- ◆ Compact and lightweight design
- ◆ Powerful vacuum level (-948 mbar)
- ◆ Miniature vacuum pump with integral three-way solenoid valve and silencer
- ◆ Integral valve ensures high cycle rates, no delay due to long pipelines
- ◆ Modular design eliminates piping between components and speeds installation
- ◆ Minimises compressed air consumption - vacuum generated at point of use

The Mini series vacuum pump offers a single high vacuum venturi in two compact lightweight configurations ideal for small part pick and place applications. Other common uses include fast evacuation of small vessels for purging operations and in water/air analysers. These compact pumps require little installation space and can be positioned close to the vacuum point for rapid response.

Description

KVP006H: Miniature vacuum pump with silencer

KVP016H: Miniature vacuum pump with integral three-way solenoid valve and silencer

Materials

Vacuum pump body:	Anodised aluminium
Venturi:	Brass
Seals:	NBR
Solenoid valve body:	Ryton®-PPS
Seals:	NBR

Technical specifications

Venturi

Medium:	Filtered (50 µ) non lubricated air
Operating pressure:	5.5 bar(g)
Air consumption:	22.65 nl/min
Operating temperature:	-10°C to +50°C
Operating noise level:	72 dBA

KVP venturi pumps are designed to operate at peak efficiency at a supply pressure of 5.5 bar.

Three-way Solenoid Valve

Valve type:	3/2 normally closed solenoid operated spring return
Medium:	Filtered (40 µ), non lubricated air
Operating pressure:	5.5 bar
Operating temperature:	-10°C to +50°C
Power consumption:	AC: 110V, 50/60Hz, 3.8VA DC: 24V, 1.9 Watts
Response time:	8 ms open 15 ms closed
Cycle rate:	2500 cycles per min
Electrical connection:	DIN 40050
Manual override:	Standard with impulse push-button
LED:	Standard

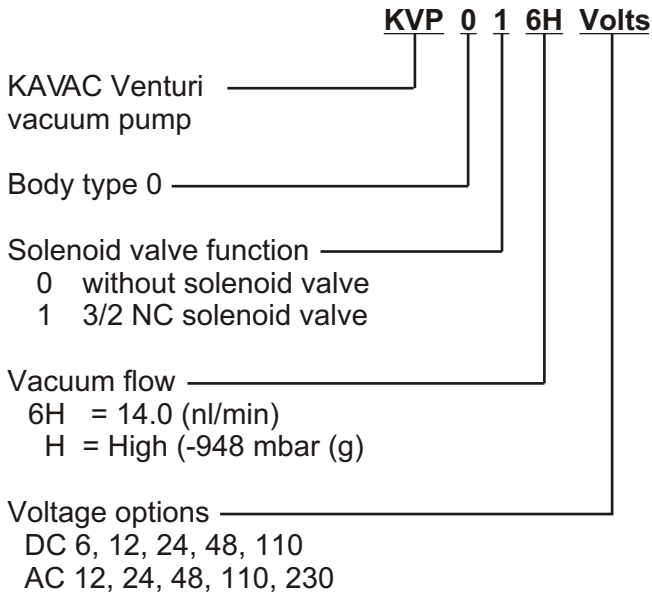
Optional Extras

Solenoid valves are also available with explosion protected coils.



Ordering Information:

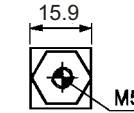
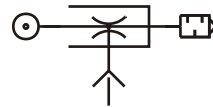
Mini series pumps have a single fixed venturi



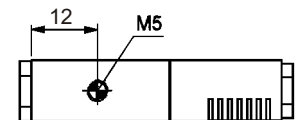
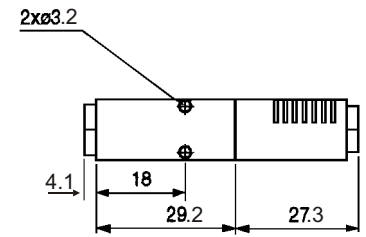
Dimensions

units mm

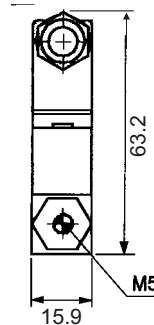
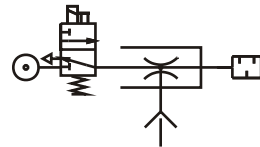
KVP006H Pump



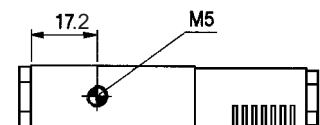
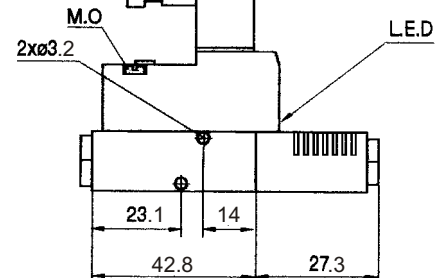
Weight 29 gms



KVP016H Pump with Solenoid Valve



Weight 89 gms



H Series Venturis

High vacuum applications

The 'H' series for 'High' vacuum levels of up to -948 mbar for applications involving non-porous materials (steel, plastic, glass, etc.)

Flow in nl/min against vacuum level (-mbar gauge)

Venturi Type	Compressed air consumption nl/min	Vac level	Flow										
			0	100	200	300	400	500	600	700	800	900	948
6H	22.65	Flow	14.16	10.55	8.93	8.36	7.53	6.41	5.57	3.62	1.39	0.56	0.00

Evacuation time (in seconds for 1 cubic litre volume of free air/gas) versus vacuum level (-mbar gauge pressure)

Venturi Type	Compressed air consumption nl/min	Vac level	Time										
			0	100	200	300	400	500	600	700	800	900	948
6H	22.65	Time	0.00	0.52	1.04	1.76	2.59	3.57	4.72	6.37	8.55	14.26	27.49

