

[Multi-function vacuum generators]



This new range of vacuum generators are complete stand alone units offering the user an entire vacuum control system.

They are distinct in their design and operation characteristics offering very strong vacuum and ejector performance in a very compact assembly. Contained within an anodized aluminium base, they consist of:

- A modular and silenced multi stage vacuum generator.
- A micro solenoid valve to supply the compressed air to the generator.
- A micro solenoid valve for the compressed air ejector.
- An adjustable flow regulator for the compressed air ejector
- A unidirectional check valve on the vacuum port to enable a safe, secure grip during a power failure.
- A digital vacuum switch with electronic display and switching indicator for starting the compressed air and offering a signal to indicate a safe lift condition.
- An anodized aluminium manifold which contains the vacuum ports and integral filter designed for ease of inspection.

Once the compressed air micro solenoid valve has been switched, the vacuum generator makes vacuum at the application; when the maximum preset value is reached, the vacuum switch, acting on the electric coil of the micro solenoid valve, stops the supply of the compressed air and restores it when the vacuum falls below the minimum value.

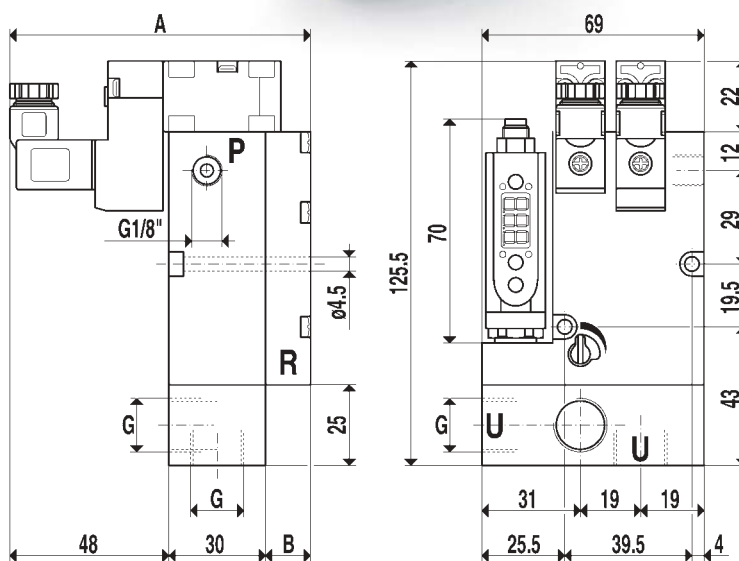
This modulation, apart from keeping the vacuum level within the preset security values (hysteresis), allows a remarkable compressed air saving.

A second signal from the vacuum switch, adjustable and independent from the first, can be used to allow the start of the cycle, when the required vacuum level is reached and suitable for the application.

When the working cycle has finished, the micro solenoid valve for the supply of compressed air to the generator switches off and, at the same time, the ejecting micro solenoid valve switches on for the rapid restoration of the atmospheric pressure within the application.

These units may be installed in any position.

These multi-function vacuum generators are suitable for vacuum cup gripping systems, for the handling of plates, glass, marble, ceramic, plastics, cardboard, wood etc. and in particular for use in the field of the industrial robotics, where devices with very good operating performance, but also with compact sizes and low weights, are required.



Art.		MVG3	MVG7	MVG10	MVG14
Supply pressure	bar (g)	6	6	6	6
Maximum vacuum level	-KPa	85	85	85	85
Final pressure	mbar (a)	150	150	150	150
Air consumption at 6 bar	NI/s	0.9	1.8	2.4	3.2
Vacuum air flow	cum/h	3.5	7	10.5	14
Blow air capacity at 6 bar (g)	l/min	222	222	222	222
Position of supply solenoid valve	NO/NC	NO	NO	NO	NO
Position of ejecting solenoid valve	NO/NC	NC	NC	NC	NC
Voltage	V	24DC	24DC	24DC	24DC
Current input	W	1.4x2	1.4x2	1.4x2	1.4x2
Vacuum switch output		PNP	PNP	PNP	PNP
Class of protection	IP	65	65	65	65
Working temperature	°C	-10/+60	-10/+60	-10/+60	-10/+60
Weight	Kg	0.666	0.670	0.716	0.720
A		89	89	98	98
B		11	11	20	20
G	ø gas	1/4"	3/8"	3/8"	3/8"

N.B.: All the vacuum values shown in the table are valid at normal atmospheric pressure of 1013 mbar (a) and obtained with a constant supply pressure.