C

Moduflex

PVL

Vacuum Generators

Depending on the application requirements, this vacuum generator may be controlled by single or by a dual 3/2 Moduflex valve. The Vacuum Generator has an integrated blow-off chamber that helps destroy the degree of vacuum. Blow-off can be increased with the addition of a control air input to the blow-off port on the vacuum module. A Ø6 mm port is available for an optional plug-in vacuum sensor for delivering a vacuum feedback signal.

Vacuum Generator Size 1

Description	Size 1
Vacuum Generator	**P2M1PXVA** Weight .88 oz

HMDXX1

FMD04-1 **CMD04-1** **FMD07-1B** **CMD07-1B**

Pneumatic Connectors for Size 1 Vacuum Generators

		Elbow Version		Straight Version	
		Weight (oz)	Order Code	Weight (oz)	Order Code
Tube Push-in Connector	5/32" = 4mm OD	0.18	**CMD04-1**	0.07	**FMD04-1**
	6mm OD	0.18	CMD06-1	0.11	**FMD06-1**
	1/4" OD	0.18	**CMD07-1B**	0.11	**FMD07-1B**
Muffler for Exhaust Port	—	—	—	0.11	**MMDVA1**
Double Male Union (For Peripheral Valve Modules)	—	—	—	0.21	**HMDXX1**

Note: 85 Durometer minimum for pneumatic connectors.

Vacuum Generator Model Number Index

P2M1PXVA **F7** **A** **F7** **C** **MA**

Basic Configuration	
Basic Unit	**P2M1PXVA**

#1 Pressure Port	
5/32" (4mm) Elbow	**C4**
6mm Elbow	C6
1/4" Elbow	**C7**
Joint Fitting	**JJ**
5/32" (4mm) Straight	**F4**
6mm Straight	F6
1/4" Straight	**F7**

Port #1 Configuration	
Fitting in Pressure Port and Blow-off Port	**A**
Fitting in Pressure Port and Blow-off Port Plugged*	B

* Can Not be directly mounting to valve.

#2 Vacuum Port	
C4	**5/32" (4mm) Elbow**
C6	6mm Elbow
C7	**1/4" Elbow**
F4	**5/32" (4mm) Straight**
F6	6mm Straight
F7	**1/4" Straight**

#2 Sensor Port	
A	6mm Plug
B	**Plug**
C	Sensor, PNP, M8
D	Sensor, NPN, M8
K	1/4" Straight
L	1/4" Elbow
M	6mm Elbow

#3 Exhaust Port	
C4	**5/32" (4mm) Elbow**
C6	6mm Elbow
C7	**1/4" Elbow**
F4	**5/32" (4mm) Straight**
F6	6mm Straight
F7	**1/4" Straight**
MA	**Muffler**

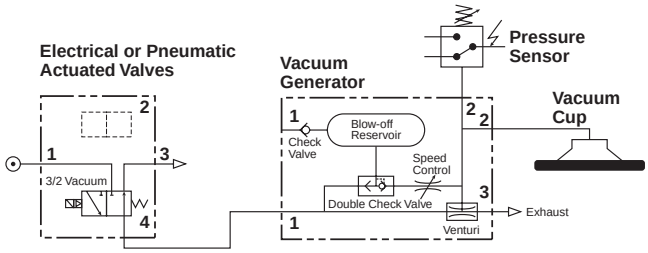
BOLD OPTIONS ARE MOST POPULAR.

Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

Vacuum Generator Applications

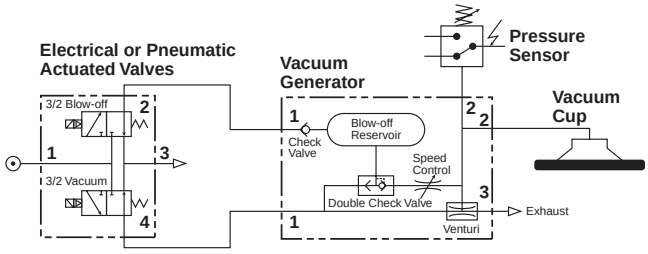
Single 3/2 NC Air Control Valve

The 3/2 valve delivers the air supply to generate vacuum through the venturi. It also pressurizes the integrated blow-off chamber. When the 3/2 valve cuts-off the air supply, this chamber is automatically exhausted into the vacuum channel in order to speed-up the part release. In this type of application, it is preferred to have the vacuum generator mounted away from the control valve.



Dual 3/2 3/2 Valve Control

One 3/2 valve controls air supply for vacuum. The other 3/2 valve will generate an additional blow-off that may prove necessary to obtain quick part release from large vacuum pads. The effect of the blow-off can be controlled with an adjustable screw. In this type of circuit, the Vacuum Generator can be mounted directly to the valve by using Double Male Unions or as a stand alone item away from the control valve.



MPS-6 Sensor Ordering Numbers

Pressure Range	Port Size	Output Circuit	Electrical Connector	Part Number
0 to -30 inHg	6mm Tube Stud	PNP Sourcing	4 Pin, M8	**MPS-V6T-PC***
		NPN Sinking		**MPS-V6T-NC***

* If ordering the sensor separate from the vacuum module, install a 6mm straight fitting in #2 sensor port for direct mounting.

Sensor Cable Part Numbers

Item	Connector	Contacts	Length	Cover
CB-M8-4P-2M	M8 Female	4	2m	PVC
CB-M8-4P-5M	M8 Female	4	5m	PUR

Vacuum Flow (SCFM)

Nozzle Diameter	inHg										
	0	**3**	**6**	**9**	**12**	**15**	**18**	**21**	**24**	**27**	**30**
P2M1PXVA	0.84	0.76	0.67	0.55	0.42	0.30	0.18	0.06	—	—	—

Evacuation Time

Series / Nozzle Diameter	Air Supply Pressure	Air Consumption	Evacuation Time in sec / ft³ * to reach different Vacuum Levels (inHg)								
	PSI	**SCFM**	**3**	**6**	**9**	**12**	**15**	**18**	**21**	**24**	**27**
P2M1PXVA	70	1.60	5.6	14.2	22.0	42.4	62.3	85.0	116	198	—

* 1 ft³ = 28.31 liters

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