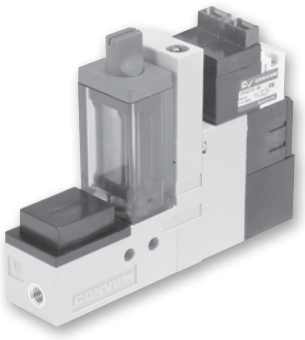
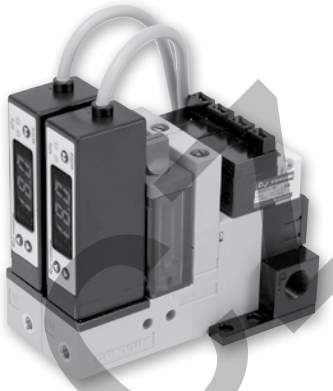
B

The MC22 is a complete package for factory automation. The MC22 has integrated vacuum generating and blow-off release pilot valves to minimize the response time to achieve vacuum. The small foot print and lightweight body allows the unit to be located close to the suction cup for maximum performance. The MC22 has additional features; regulating blow-off needle, 37 micron mesh filter, and a sensor platform for vacuum confirmation. The MC22 can be assembled into a maximum 8 station manifold. The unit can be ordered normally open or normally closed, with or without MPS-23 or MVS-201 pressure sensors.

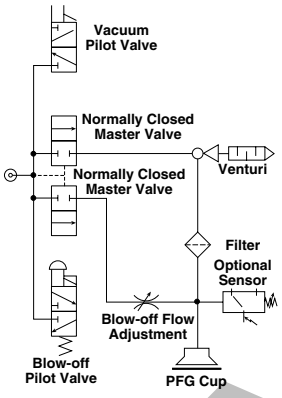




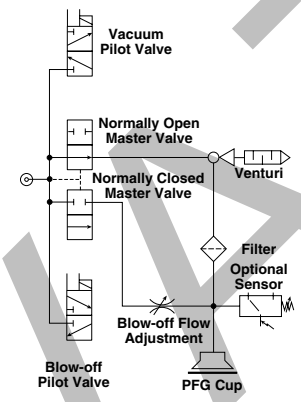
Add-A-Fold Manifold

Features

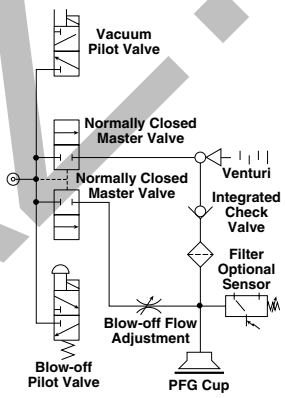
- Vacuum generating pilot valve
- Vacuum blow-off pilot valve
- Vacuum sensor - filter - silencer available
- Regulating blow-off adjustment
- Manifold system
- Short cycle times for high speed pick and place
- Vacuum flow rates to 44 l/mn



MC2, Normally Closed Vacuum Valve



MC2, Normally Open Vacuum Valve



MC2, Normally Closed Vacuum Valve with Integrated Check Valve

Specifications

Media	Non-lubricated compressed air, non-corrosive gases
Operating pressure	1.5 to 5.8 bar (21 to 84 PSI)
Optimum operating pressure	4.8 bar (70 PSI)
Humidity	35 to 85%
Pressure port	G: 1/8 BSPP female, N: 1/8 NPT female
Vacuum port	M5 female
Operating temperature	5°C to 50°C
Material	Aluminum, Polyamide, NBR
Vacuum generating and blow-off release pilot	
Type of control valve	Pilot valve, includes 300mm clip wire connector
Manual operation	Non-locking manual override
Electrical connection	Clip type connector with LED and surge protection
Power supply	24VDC ± 10%
Power consumption	1W
Pressure range	1.5 to 5.8 bar (21 to 84 PSI)
Pilot valve air supply	Normally closed
Generator weight	117g without sensor
Manifold weight	2-Station: 40g, 3-Station: 54g, 4-Station: 68g, 5-Station: 82g 6-Station: 96g, 7-Station: 110g, 8-Station: 124g

MC2 unit without integrated check valve, normally closed vacuum valve

Port size			Max. vacuum flow l/mn	Max. degree of vacuum inHg		Part number
Pressure	Vacuum	Exhaust			Sensor option	NPT
1/8	M5	Muffler	44	24	None	MC22S10HSZL4BLN
1/8	M5	Muffler	44	24	MPS-V23C-PC. PNP	MC22S10HS42L4BLN
1/8	M5	Muffler	44	24	MVS-201-PCP, PNP	MC22S10HS06L4BLN
1/8	M5	Muffler	44	24	MPS-V23C-NC, NPN	MC22S10HS41L4BLN
1/8	M5	Muffler	44	24	MVS-201-NC, NPN	MC22S10HS01L4BLN

MC2 unit without integrated check valve, normally open vacuum valve

Port size			Max. vacuum flow l/mn	Max. degree of vacuum inHg		Part number
Pressure	Vacuum	Exhaust			Sensor option	NPT
1/8	M5	Muffler	44	24	None	MC22S10HSZL4ALN
1/8	M5	Muffler	44	24	MPS-V23C-PC. PNP	MC22S10HS42L4ALN
1/8	M5	Muffler	44	24	MPS-V23C-NC, NPN	MC22S10HS41L4ALN

MC2 unit with integrated check valve, normally closed vacuum valve

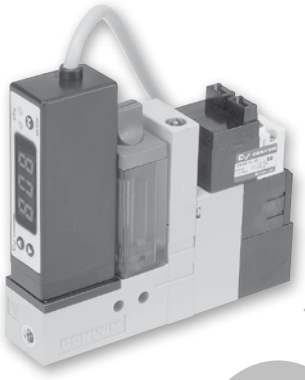
Port size			Max. vacuum flow l/mn	Max. degree of vacuum inHg		Part number
Pressure	Vacuum	Exhaust			Sensor option	NPT
1/8	M5	Muffler	44	24	None	MC22S10HSZLC4BLN
1/8	M5	Muffler	44	24	MPS-V23C-PC. PNP	MC22S10HS42LC4BLN
1/8	M5	Muffler	44	24	MVS-201-PCP, PNP	MC22S10HS06LC4BLN
1/8	M5	Muffler	44	24	MPS-V23C-NC, NPN	MC22S10HS41LC4BLN
1/8	M5	Muffler	44	24	MVS-201-NC, NPN	MC22S10HS01LC4BLN

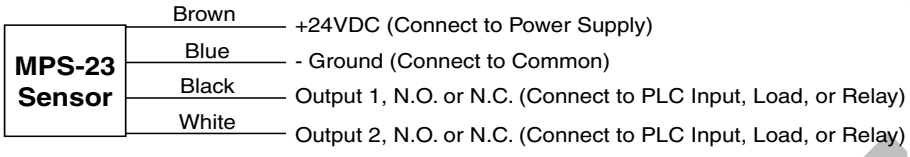
B

MC22 with MPS-23 series

The “V23” sensor has 2 independent NPN or PNP outputs available for vacuum confirmation. The output response time of this sensor is less than 2 msec.

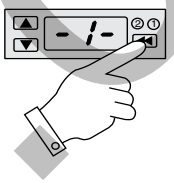
The “V23” sensor is available with an M8, 4 Pin Connector, on 1M Cable. The mating M8, 4-Pin cable must be ordered separately.



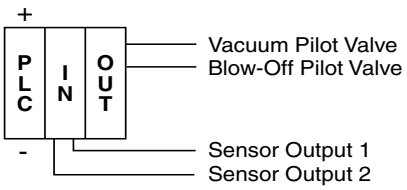


Output Adjustment

Sensor functions and outputs are programmed by touch panel.

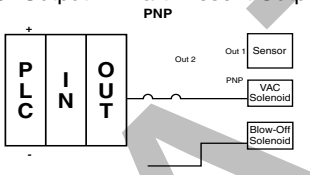


Basic System

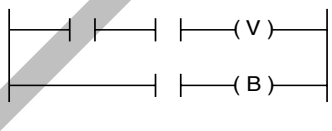


Air-Economizing System

N.C. Output 1 - Air Economizing
N.O. Output 2 - Part Present Output



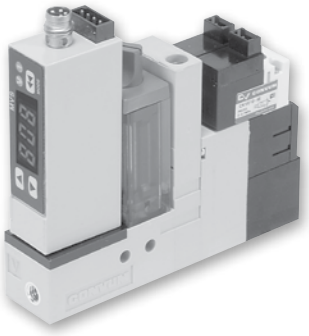
Vacuum System Programming

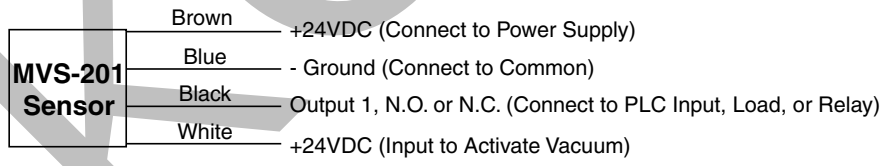


MC22 with MVS-201 series

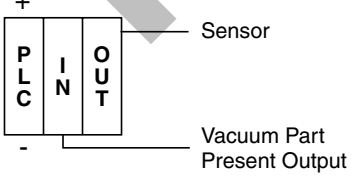
The “201” sensor has one output NPN or PNP for vacuum confirmation and a control output that interfaces directly with the blow-off release pilot valve. With programmable time control features and a special chip driver, the sensor automatically activates the blow-off release when the NPN or PNP input vacuum signal from the PLC is discontinued. This eliminates a PLC output to activate the blow-off release. This new technology reduces PLC output requirements by 50% and reduces installation to a simple 4 wire system. The output response of the sensor is less than 2 msec.

The “201” sensor is available with an M8, 4-Pin electrical connector. The MC22-201 valve cable is included with the MVS-201 Sensor Option. The mating M8, 4-Pin cable must be ordered separately.

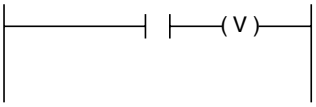




Basic System with 201 Sensor

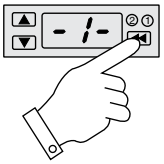


Vacuum System Programming



Output Adjustment

Sensor functions and outputs are programmed by touch panel.



Station 1 Station 2

Manifold part number

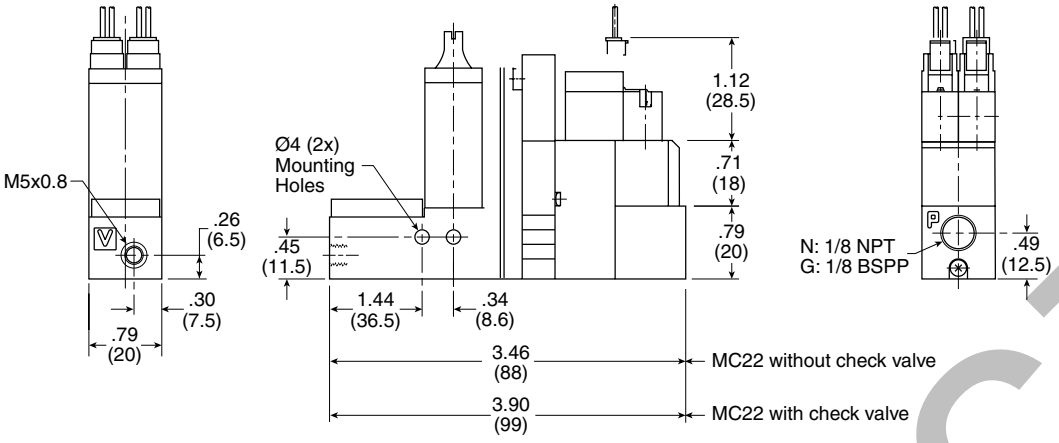
MC2 - M 08 N

Manifold	Stations	Port Size
	02	**N 1/8 NPT**
	03	G 1/8 BSPP
	04	R 1/8 BSPT
	05	
	06	
	07	
	08	

B

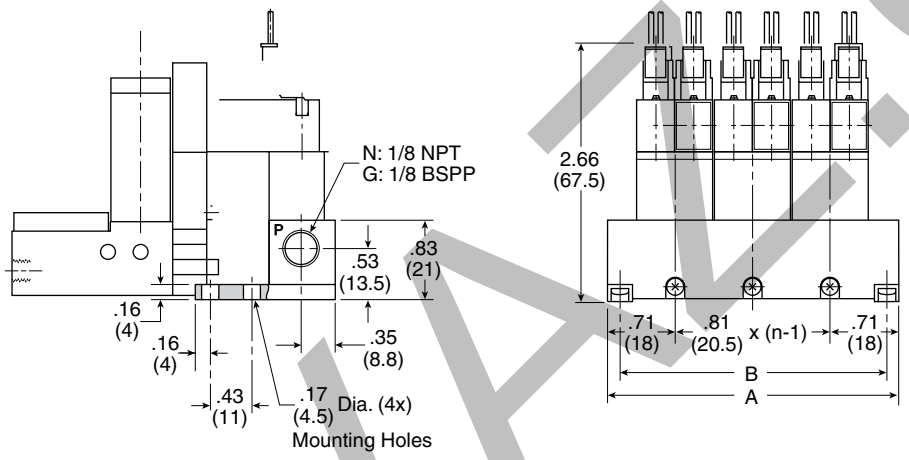
B

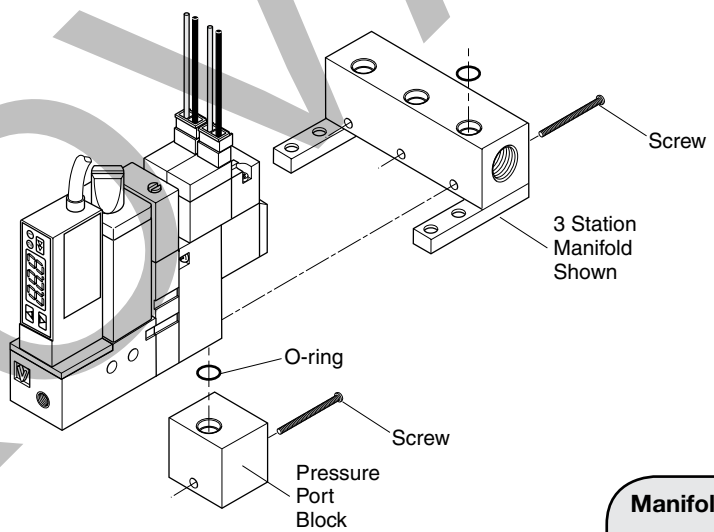
Generator



Manifold

3-Station manifold without check valve shown





Manifold assembly

Remove Pressure Port Block and use existing o-ring and screw to secure the MC22 unit to the MC2 manifold.

Dimensions (mm)

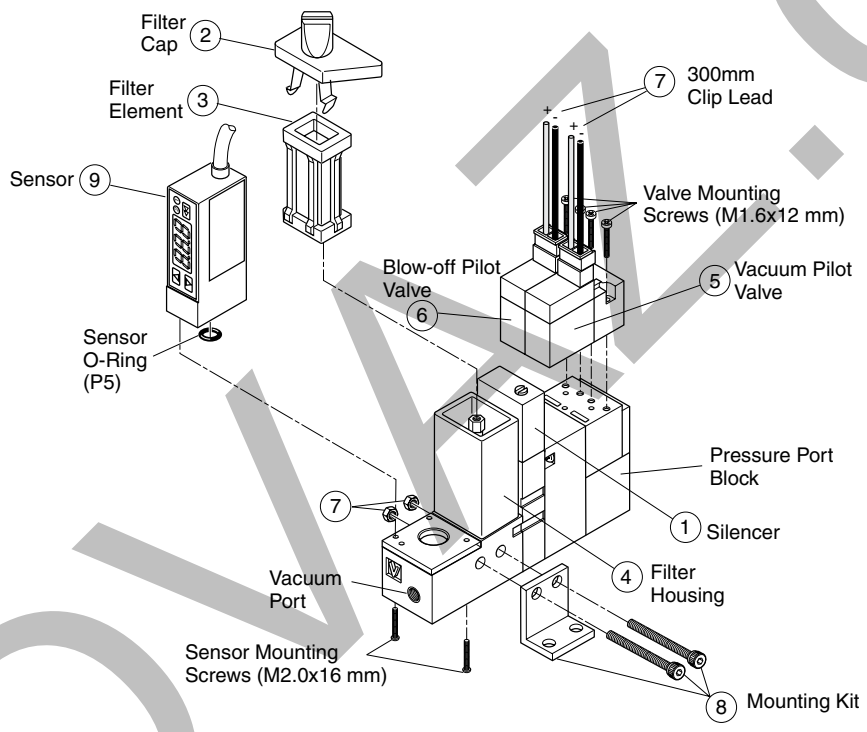
n	2	3	4	5	6	7	8
A	56.5	77	97.5	118	138.5	159	179.5
B	48.5	69.0	89.5	110	130.5	151	171.5

n = Number of Stations

B

Replacement components

Item	Part number	Description
1	MC2-S	Silencer
2, 3, 4	MC2-F	Filter kit
3	MC2-E	Filter element
5, 7	CKV010-4E	Vacuum pilot valve
6, 7	CKV010-4E	Blow-off pilot valve
7	N/A	300mm clip lead
8	MC2-B	Mounting kit
9	MPS-V23C-NC	MPS-V23 (NPN) option
	MPS-V23C-PC	MPS-V23 (PNP) option
	MVS-201-NC	MVS-201 (NPN) option
	MVS-201-PCP	MVS-201 (PNP) option



MC22 Accessories

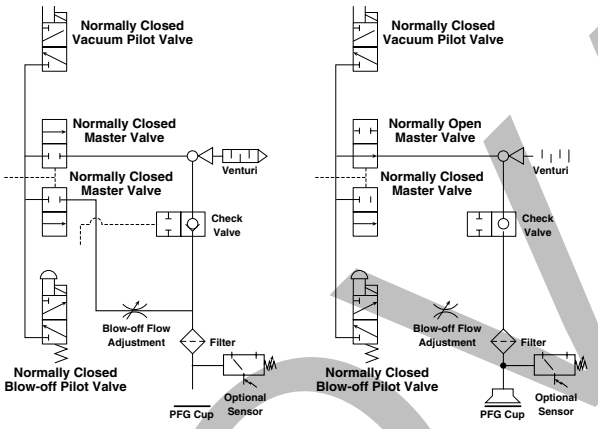
Description	Part number
MC22 - C201G sensor / valve connector* (connects sensor to vacuum & blow-off release pilot valves) * Included with MVS-201 sensor option 01 & 06.	MC22-C201G
MC2-MM manifold blank plate kit* * includes blank plate, screws & gasket	MC2-M
Clip electrical connector, 600mm lead length	CA2-V4-6
Clip electrical connector, 1500mm lead length	CA2-V4-15

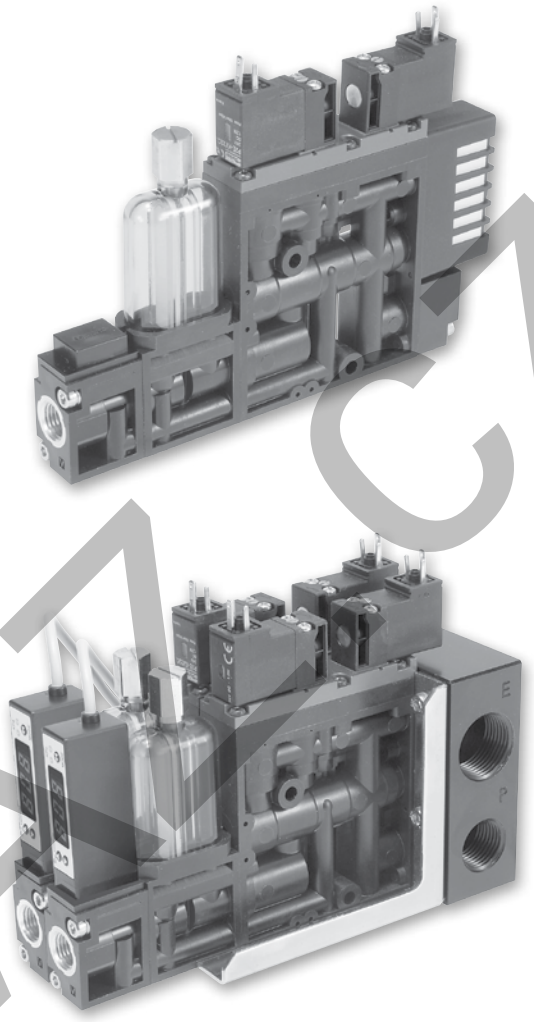
B

The MC72 Series vacuum generator provides a complete solution for factory automation. The MC72 is perfect for non-porous applications such as material handling, critical applications involving glass, or general transfer applications. The MC72 has integrated vacuum pilot and blow-off release pilot valves to minimize response times. The MC72 has additional features; regulating blow-off needle, 130 micron filter, optional check valve, and a sensor platform for vacuum confirmation. The MC72 can be assembled into a maximum 5 station manifold. The unit can be ordered normally open or normally closed.

Features

- Vacuum generating pilot valve
- Vacuum release pilot valve option
- Vacuum sensor - filter - silencer available
- Regulating blow-off
- Check valve option
- Air-economizing controls
- Manifold system
- Vacuum flow rates from 60 to 155 l/mn
- 3-Pin, EN175301-803, 15mm, 8mm 3-Pin





Add-A-Fold assembly (Silencer included)

Specifications

Media	Non-lubricated compressed air, non-corrosive gases
Optimum operating pressure	4.8 bar (70 PSI)
Humidity	35 to 85%
Pressure port	G: 1/4 BSPP female N: 1/4 NPT female
Vacuum port	G: 1/4 BSPP female N: 1/4 NPT female
Operating temperature	5°C to 50°C
Material	Body (PA and PBT) with other internal components (Brass, Al.NBR, SUS, FKM), filter elements (PVF)
Manual operation	Non-locking manual override
Electrical connection	DIN connector with LED and surge protection
Power supply	24VDC ± 10%
Power consumption	1.8W
Operating pressure	4.8 bar (70 PSI)
Pilot valve air supply	Normally closed
Generator weight	750g
Manifold weight	2-Station: 680g, 3-Station: 880g, 4-Station: 1080g, 5-Station: 1280g

MC72 unit with integrated check valve, normally closed vacuum valve

Port size			Max. vacuum flow	Max. degree of vacuum		Part number	Part number
Pressure	Vacuum	Exhaust	l/mn	inHg	Sensor option	BSPP	NPT
1/4	3/8	Muffler	62	24	No sensor	MC72S15HSZSC4BPG	MC72S15HSZSC4BPN
1/4	3/8	Muffler	62	24	MPS-V23C-PC, PNP	MC72S15HS42C4BPG	MC72S15HS42C4BPN
1/4	3/8	Muffler	62	24	MVS-201-PCP, PNP	MC72S15HS06C4BPG	MC72S15HS06C4BPN
1/4	3/8	Muffler	62	24	MPS-V23C-NC, NPN	MC72S15HS41C4BPG	MC72S15HS41C4BPN
1/4	3/8	Muffler	62	24	MVS-201-NC, NPN	MC72S15HS01C4BPG	MC72S15HS01C4BPN
1/4	3/8	Muffler	104	24	No sensor	MC72S20HSZSC4BPG	MC72S20HSZSC4BPN
1/4	3/8	Muffler	104	24	MPS-V23C-PC, PNP	MC72S20HS42C4BPG	MC72S20HS42C4BPN
1/4	3/8	Muffler	104	24	MVS-201-PCP, PNP	MC72S20HS06C4BPG	MC72S20HS06C4BPN
1/4	3/8	Muffler	104	24	MPS-V23C-NC, NPN	MC72S20HS41C4BPG	MC72S20HS41C4BPN
1/4	3/8	Muffler	104	24	MVS-201-NC, NPN	MC72S20HS01C4BPG	MC72S20HS01C4BPN
1/4	3/8	Muffler	147	24	No sensor	MC72S25HSZSC4BPG	MC72S25HSZSC4BPN
1/4	3/8	Muffler	147	24	MPS-V23C-PC, PNP	MC72S25HS42C4BPG	MC72S25HS42C4BPN
1/4	3/8	Muffler	147	24	MVS-201-PCP, PNP	MC72S25HS06C4BPG	MC72S25HS06C4BPN
1/4	3/8	Muffler	147	24	MPS-V23C-NC, NPN	MC72S25HS41C4BPG	MC72S25HS41C4BPN
1/4	3/8	Muffler	147	24	MVS-201-NC, NPN	MC72S25HS01C4BPG	MC72S25HS01C4BPN

MC72 unit with integrated check valve, normally open vacuum valve

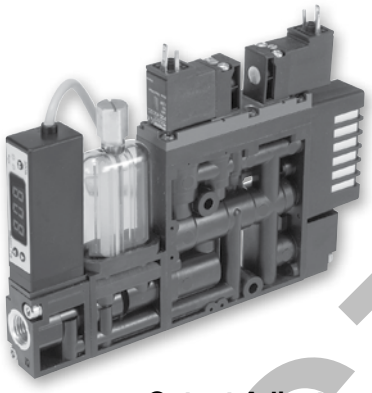
Port size			Max. vacuum flow	Max. degree of vacuum		Part number	Part number
Pressure	Vacuum	Exhaust	l/mn	inHg	Sensor option	BSPP	NPT
1/4	3/8	Muffler	62	24	No sensor	MC72S15HSZSC4APG	MC72S15HSZSC4APN
1/4	3/8	Muffler	62	24	MPS-V23C-PC, PNP	MC72S15HS42C4APG	MC72S15HS42C4APN
1/4	3/8	Muffler	62	24	MPS-V23C-NC, NPN	MC72S15HS41C4APG	MC72S15HS41C4APN
1/4	3/8	Muffler	104	24	No sensor	MC72S20HSZSC4APG	MC72S20HSZSC4APN
1/4	3/8	Muffler	104	24	MPS-V23C-PC, PNP	MC72S20HS42C4APG	MC72S20HS42C4APN
1/4	3/8	Muffler	104	24	MPS-V23C-NC, NPN	MC72S20HS41C4APG	MC72S20HS41C4APN
1/4	3/8	Muffler	147	24	No sensor	MC72S25HSZSC4APG	MC72S25HSZSC4APN
1/4	3/8	Muffler	147	24	MPS-V23C-PC, PNP	MC72S25HS42C4APG	MC72S25HS42C4APN
1/4	3/8	Muffler	147	24	MPS-V23C-NC, NPN	MC72S25HS41C4APG	MC72S25HS41C4APN

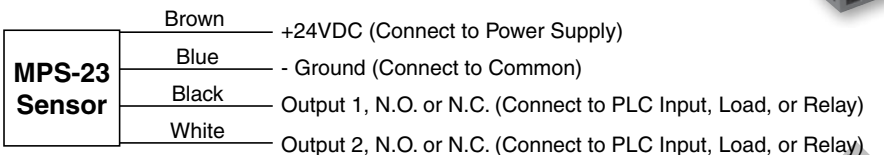
B

MC72 with MPS-23 series

The “V23” sensor has 2 independent NPN or PNP outputs available for vacuum confirmation. The output response time of this sensor is less than 2 msec.

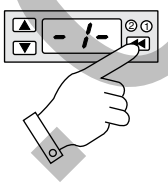
The “V23” sensor is available with an M8, 4-Pin or grommeted (2M) electrical connector. The mating M8, 4-Pin cable is not included with the MPS-23 Sensor and must be ordered separately.



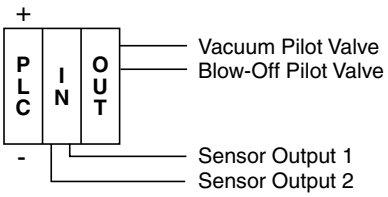


Output Adjustment

Sensor functions and outputs are programmed by touch panel.

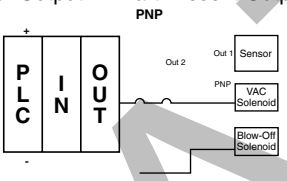


Basic System

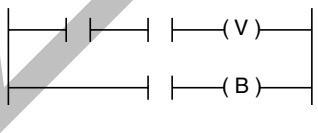


Air-Economizing System

N.C. Output 1 - Air Economizing
N.O. Output 2 - Part Present Output



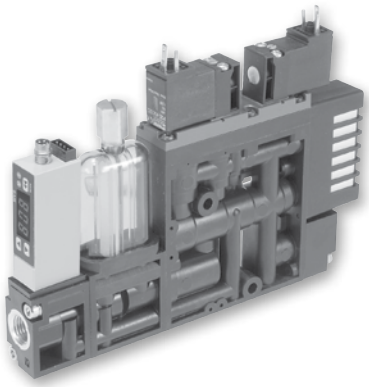
Vacuum System Programming

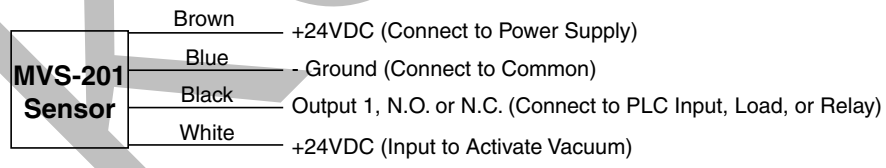


MC72 with MVS-201 series

The “201” sensor has one output NPN or PNP for vacuum confirmation and a control output that interfaces directly with the blow-off release pilot valve. With programmable time control features and a special chip driver, the sensor automatically activates the blow-off release when the NPN or PNP input vacuum signal from the PLC is discontinued. This eliminates a PLC output to activate the blow-off release. This new technology reduces PLC output requirements by 50% and reduces installation to a simple 4 wire system. The output response of the sensor is less than 2 msec.

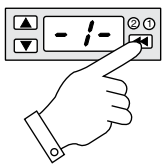
The “201” sensor is available with an M8, 4-Pin electrical connector. The CVK-D201G valve cable is included with the MVS-201 Sensor Option. The mating M8, 4-Pin cable must be ordered separately.



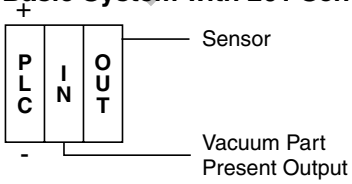


Output Adjustment

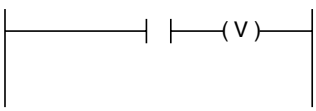
Sensor functions and outputs are programmed by touch panel.

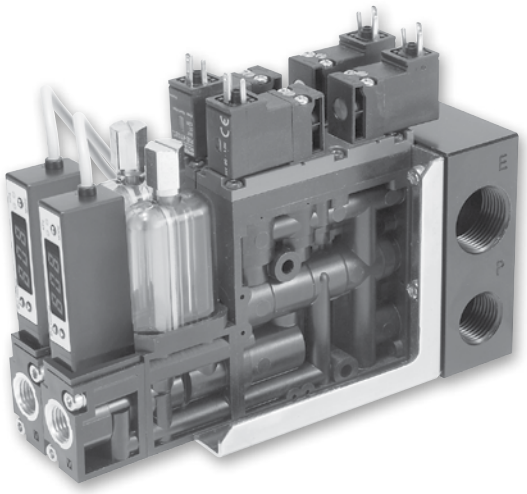


Basic System with 201 Sensor

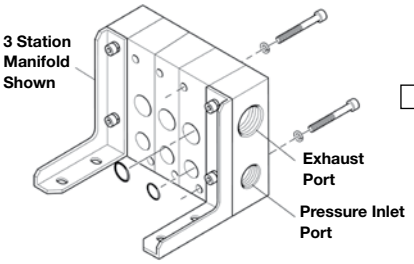


Vacuum System Programming





Manifold part number (without MC72 vacuum generator)

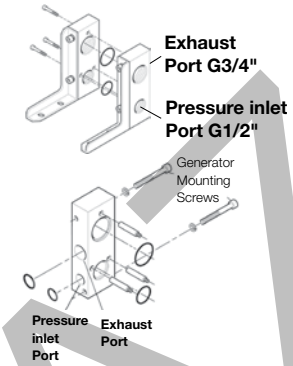


MC72 - M 05 G

Manifold	Stations	Port Size
	02 03 04 05	G 1/2 BSPP

Note) for complete Manifold including MC72 vacuum generators,please contact us.

Separated elements

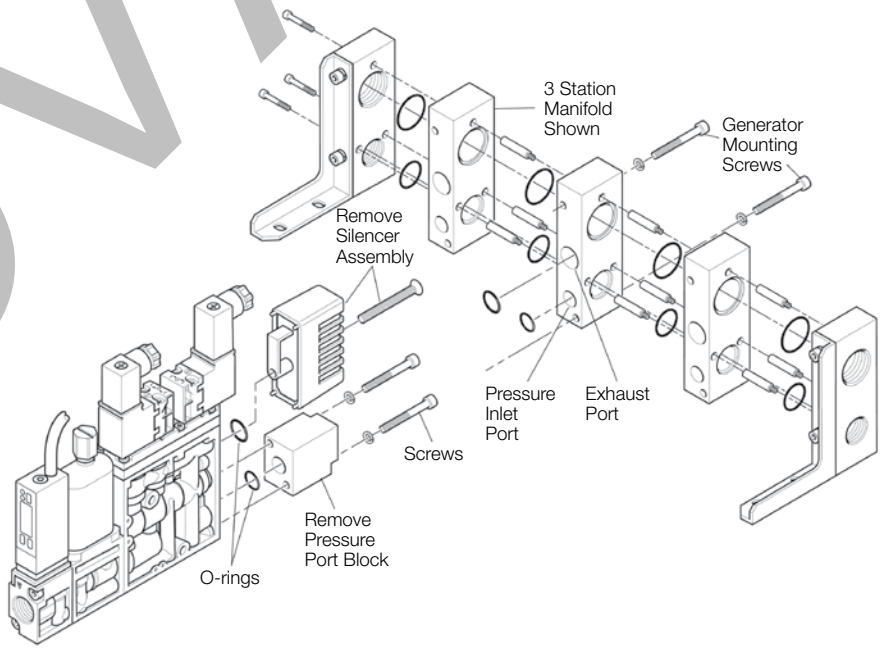


Description	Order code
End plate	MC7-MB-G
Vacuum Generator Sub-base	MC7-MB

Manifold Assembly

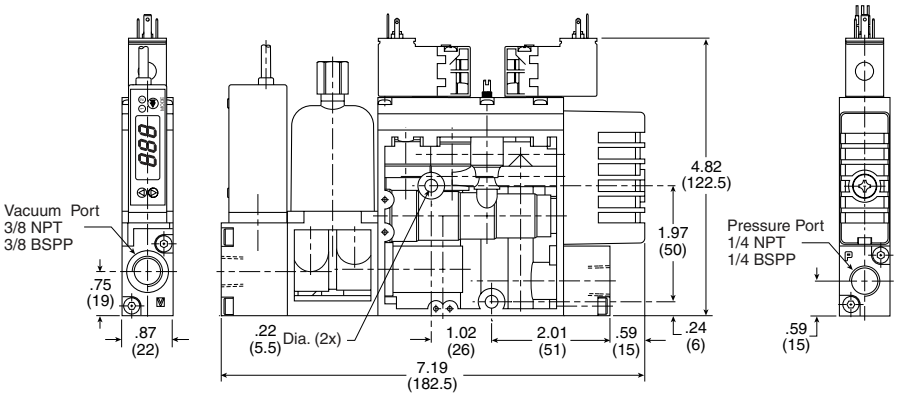
Manifold assembly

1. Assemble manifold sections to manifold end plates as shown.
2. Assemble vacuum generator by removing pressure block and exhaust muffler. Then install using screws from manifold kit and existing O rings on MC72 unit.



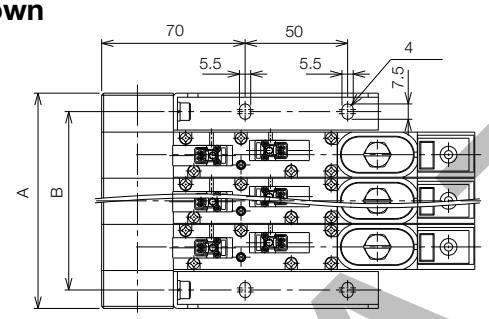
B

Generator

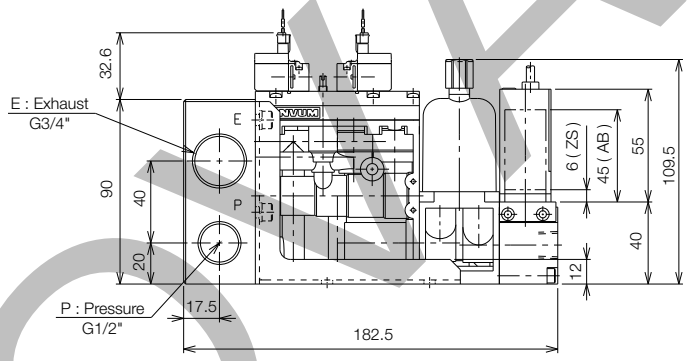


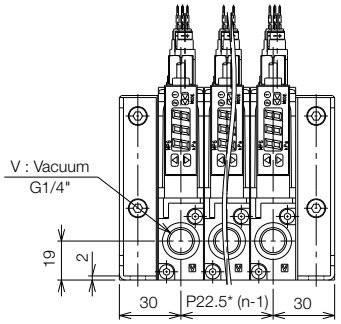
Manifold

3-Station manifold shown

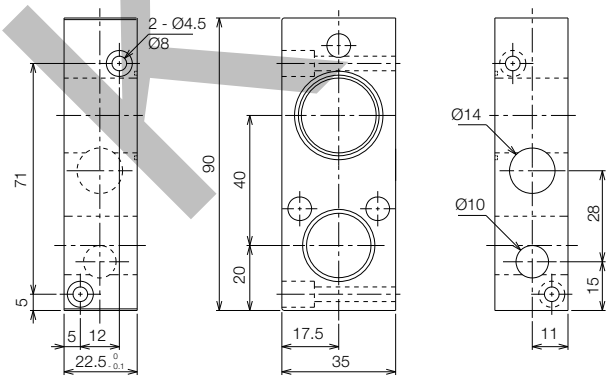


n	2	3	4	5
A	82,5	105	127,5	150
B	64,5	87	109,5	132

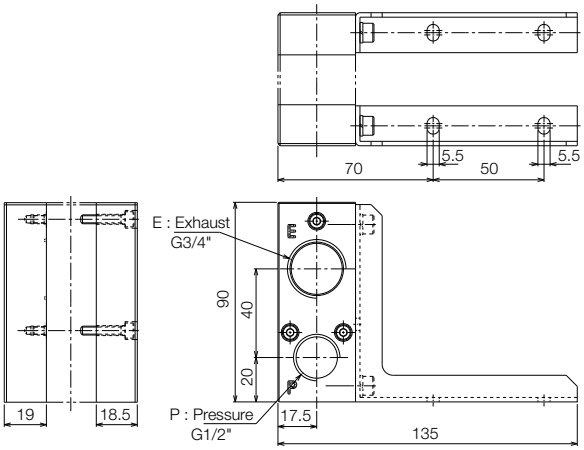




Vacuum Generator Sub-base



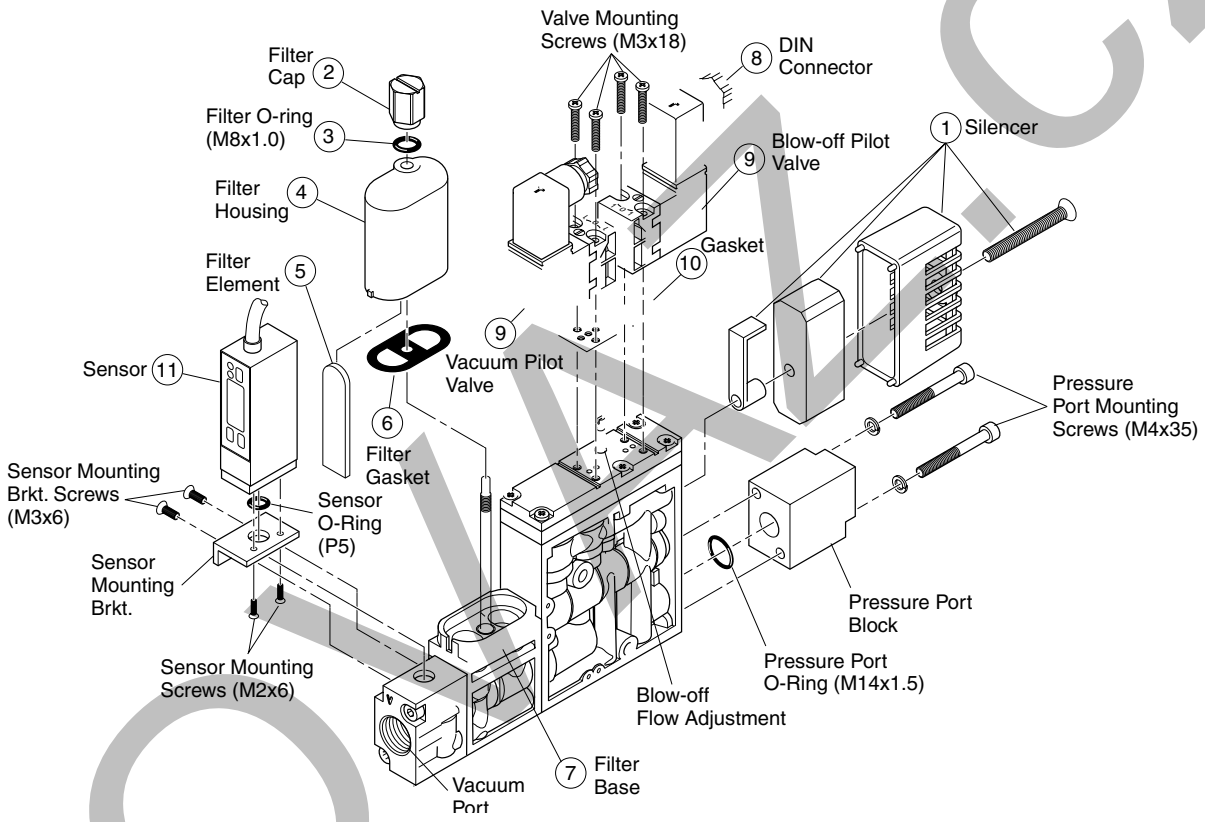
End Plates



B

Replacement components

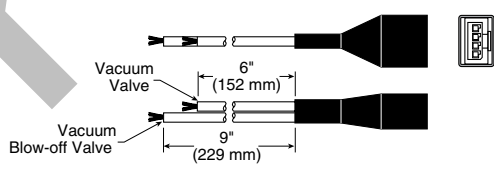
Item	Part number	Description
1	CVK-S	Silencer
2 thru 7	CVK-F	Filter kit
5	CVK-E	Filter element
8	P8C-D26C	DIN connector with LED
8, 9, 10	MC72-4PD	Pilot valve kit
11	MPS-V23C-NC	MPS-V23 (NPN) option
	MPS-V23C-PC	MPS-V23 (PNP) option
	MVS-201-NC	MVS-201 (NPN) option
	MVS-201-PCP	MVS-201 (PNP) option



CVK-D201G Valve Cable*

(Connects Sensor to Vacuum & Blow-off Release Pilot Valves)

CVK-D201G



* Included with MVS-201 Sensor Option 01 & 06.

Generator Blank Plate Kit

CVK-BLK

Kit includes: Blank plate, screws & o-rings