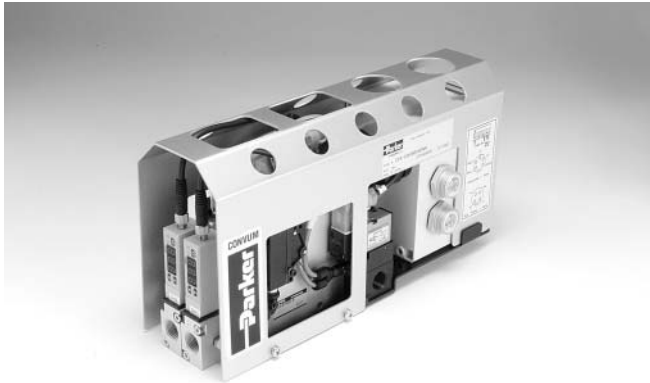
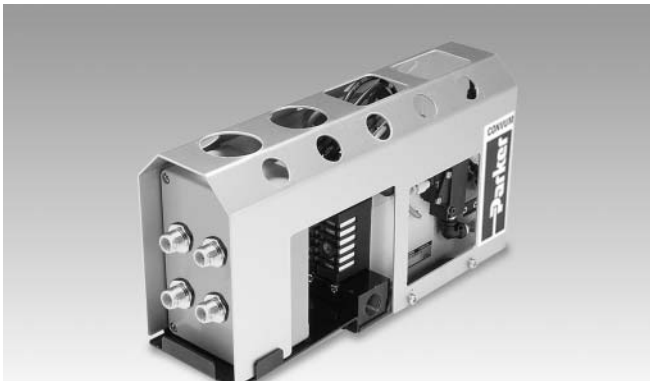


CVX0260B Emergency Stop



DeviceNet



Discrete

Characteristics

The CVX0260B is ideal for non-porous applications that can benefit from Emergency Stop Management Systems and air-economizing features.

The Emergency Stop Management System can maintain the last state of air during Emergency Stop or power failure. During one of these events, the vacuum command signal is lost, but, the system can detect the presence of a part and continue to maintain the vacuum state. Additionally, if the system detects that a part is not present, the vacuum state will not continue and will close to eliminate any unnecessary air consumption.

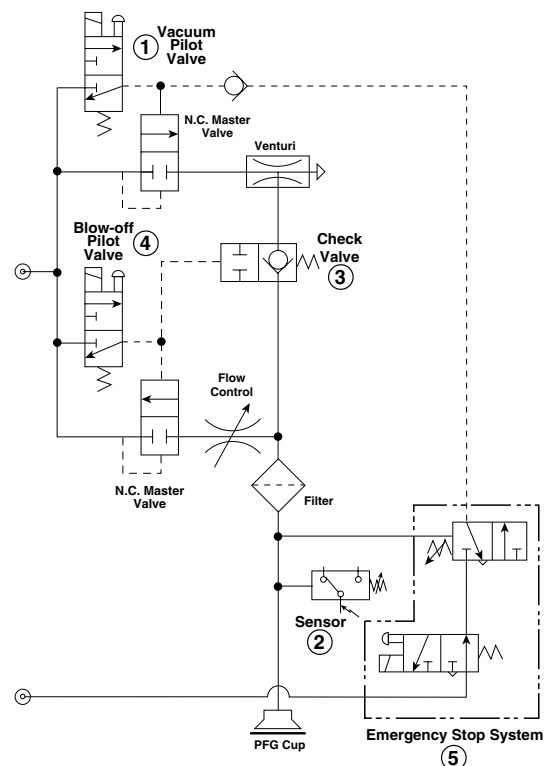
Air economizing features are controlled by the sensor outputs to minimize air consumption during normal operations. **PLC programming is not required for Air Economizing Functions because this function is included in the electrical enclosure.** Optional DeviceNet communications are available.

Features

- **Emergency Stop Operating System (Patented) with Air Economizing Mode**
- **Eliminates All Unnecessary Air Consumption**
- **Optional DeviceNet™ Communication**
- **Fast Sensor and Vacuum Flow Response Times**
- **Large Vacuum Flow Rates**
- **Independent Vacuum Channels**

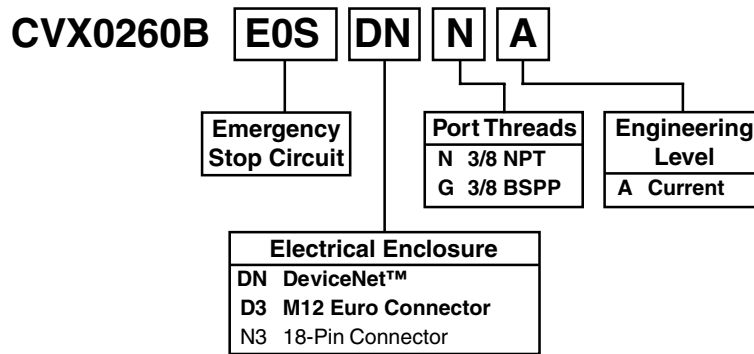
Vacuum Controlled Emergency Stop Circuit

There are 4 separate states of air logic: vacuum, blow-off, idle, and EOS. The air circuit illustrates a basic normally closed unit with the Emergency Stop operating system. Vacuum is created when a high signal is sent to Vacuum Pilot Valve (1). The output of the vacuum Sensor (2), controls the vacuum level and air economizing function by feedback to the Vacuum Solenoid Valve (1). The Check Valve (3) maintains the vacuum level until the Blow-off Pilot Valve (4) is activated to release or the hysteresis value of Sensor (2) is reached to restore the original vacuum level. The Emergency Stop operating system (5) is activated by an emergency stop or power failure.



Model Number Index

(Bold Items are Stocked)



Specifications

CVX0260B Specifications	
Media	Non-lubricated Compressed Air, Dry Air
Pressure Port	3/8" G, 3/8" NPT Through Port
Vacuum Ports	2 Individual Vacuum Channels 3/8" G or 3/8" NPT Ports
Operating Temperature	32 to 122°F
Humidity	35 to 85% R.H.
Operating Pressure	70 PSI
Vacuum Filtration	130 µm
Noise Level	72dB
Air Consumption	10.41 SCFM
Vacuum Flow	5.75 SCFM
Sensor Response Time	< 2msec
Maximum Vacuum Level	-26.2 inHg
Cover	300 Series 22 Gauge Stainless Steel

Control Valve Specifications	
3-Way	Pilot Valves
Manual Operation	Manual Overrides Available
Electrical Connector	DIN type w/LED and Diode Protection, IP65 Rating
Power Supply	24VDC ± 10%
Power Consumption	1.8W
Pressure Range	21 to 150 PSI
Pilot Valve Air Supply	Normally Closed
Mass	2.0 oz. (50g)

Emergency Stop Operating System Specifications	
Two-Way Valve	Diaphragm Actuated, Pneumatic Output
Media	Non-lubricated Air, Dry Air
Switch Point Pressure	9 inHg
Operating Range	-4.5 to -25 inHg Vacuum
Pressure Through-put Range	22 to 116 PSI
Accuracy	± 1.5 inHg
Port Connection	M5 Female
Air Supply	Normally Closed
Mass	1.2 oz. (30g)

Aux. Power Electrical Valve Specifications	
3-Way Valve	Direct Acting
Media	Compressed Air, Non-lubricated
Operating Range	0 to 102 PSI
Electrical Connection	DIN Connector w/LED and Diode Protection, IP65
Operating Voltage	24VDC ± 10%
Power Consumption	1.8W
Current	0.075A
Air Supply	Normally Open
Mass	2.16 oz. (54g)

Check Valve Specifications	
One Way	One Way Spring Return
Operating Pressure	-26.8 inHg to 230 PSI
Mass	0.35 oz. (10g)

Evacuation Time

Series / Nozzle Diameter	Air Supply Pressure	Air Consumption	Evacuation Time in sec / ft ³ * to reach different Vacuum Levels (inHg)								
			3	6	9	12	15	18	21	24	27
CVX0260B	70 PSI	10.42 SCFM	0.6	2.0	3.0	5.6	8.5	13.3	21.2	42.1	—

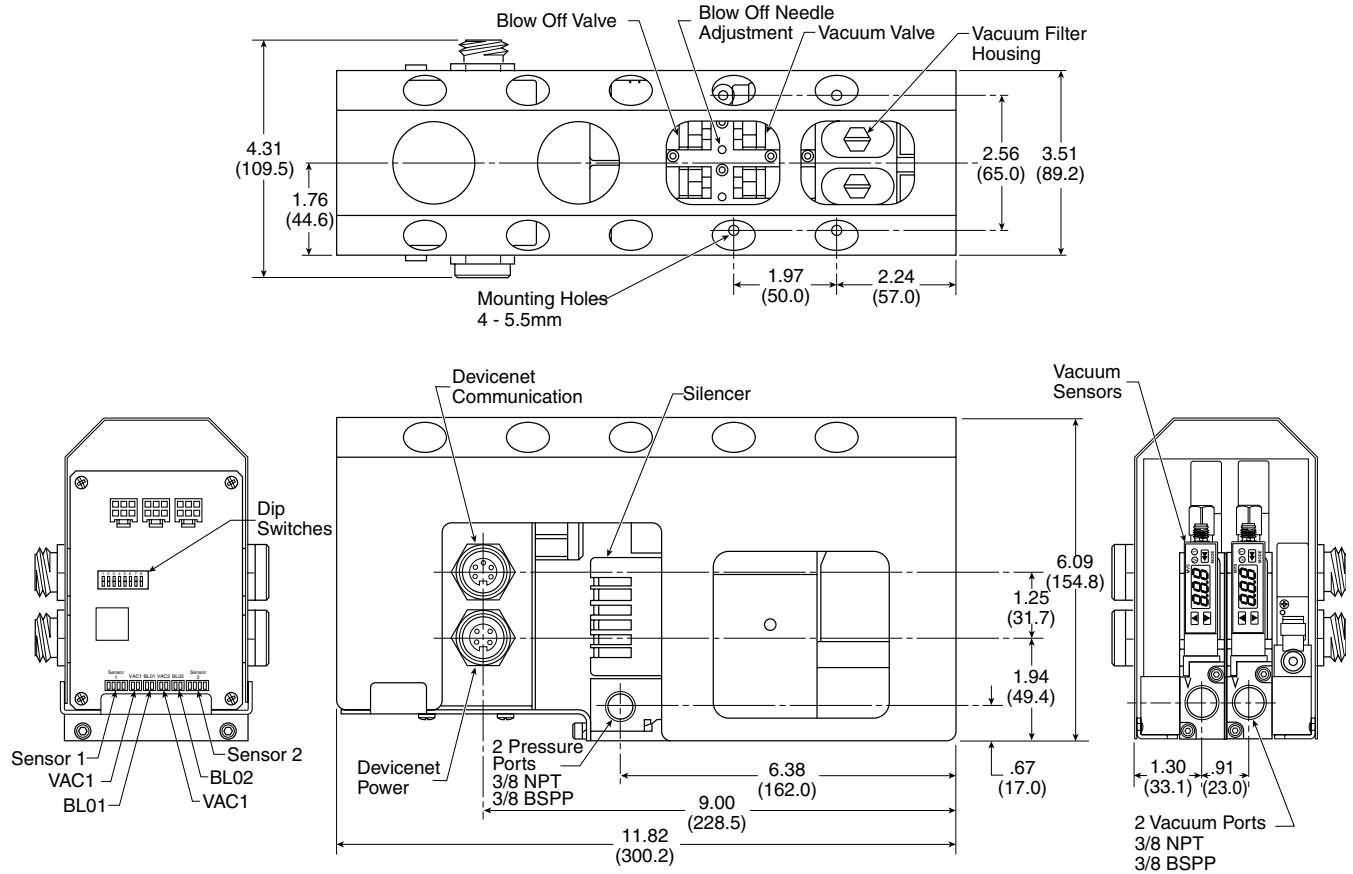
* 1 ft³ = 28.31 liters

Vacuum Flow (SCFM)

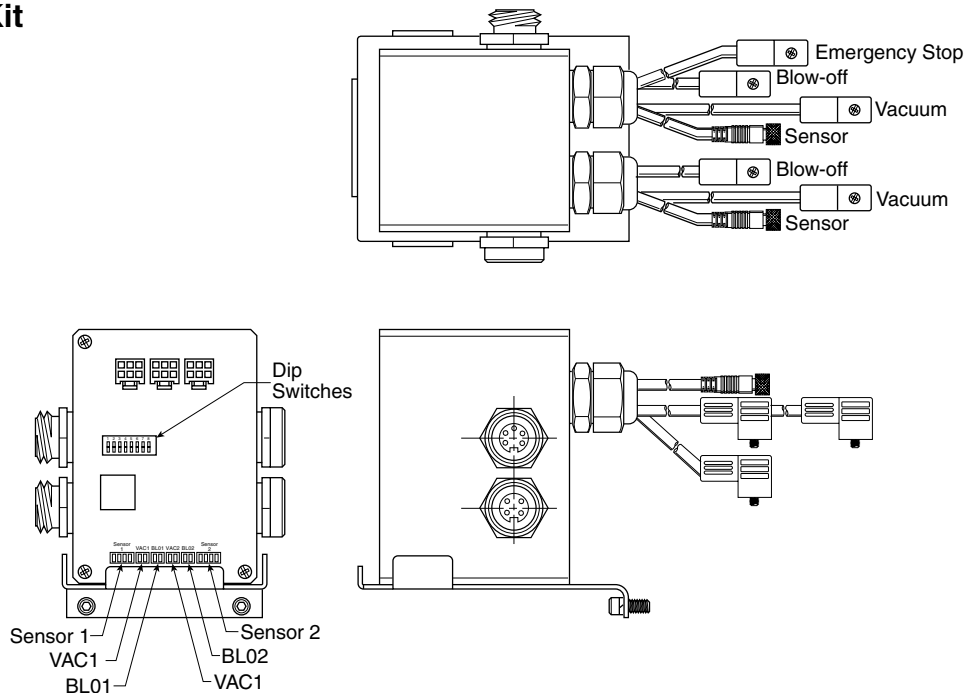
Nozzle Dia.	inHg										
	0	3	6	9	12	15	18	21	24	27	30
CVX0260B	5.75	5.09	4.43	3.77	3.11	2.45	1.80	1.15	.50	—	—



CVX0260BE0SDN**

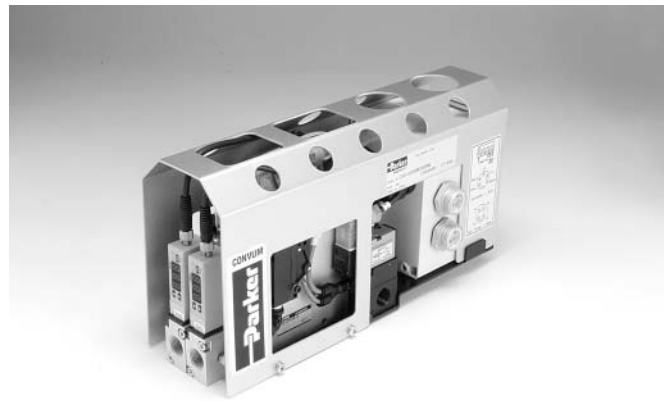


DeviceNet Kit
PSCVXDNA



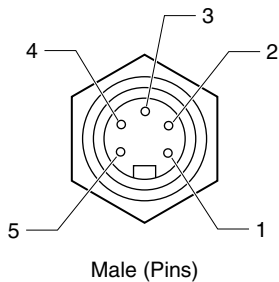
DeviceNet™

The DeviceNet™ power bus supplies power for the DeviceNet circuitry and the two sensors. The auxiliary power bus provides power for the vacuum solenoids and blow-off solenoids. *No external PLC programming is required for Air Economizing Functions because this function is built into the electrical unit.* The following are power requirements for the DeviceNet circuitry. Voltage Range: 12.5 to 24VDC; Current 150 mA.

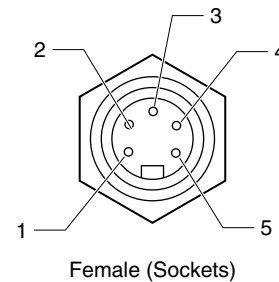


DeviceNet™ Bus Connectors 5-Pin Mini-Style

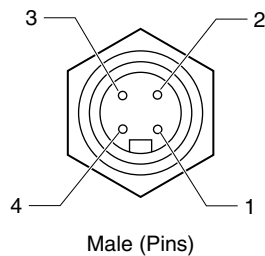
DeviceNet Connections



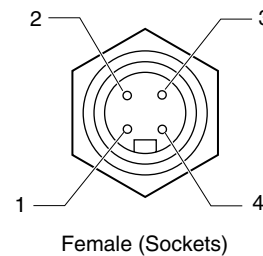
- 1.) Drain
- 2.) V+
- 3.) V-
- 4.) CAN-H
- 5.) CAN-L



24VDC Power Connections



- 1.) 24VDC
- 2.) Not Used
- 3.) Not Used
- 4.) Common



I/O Data Table

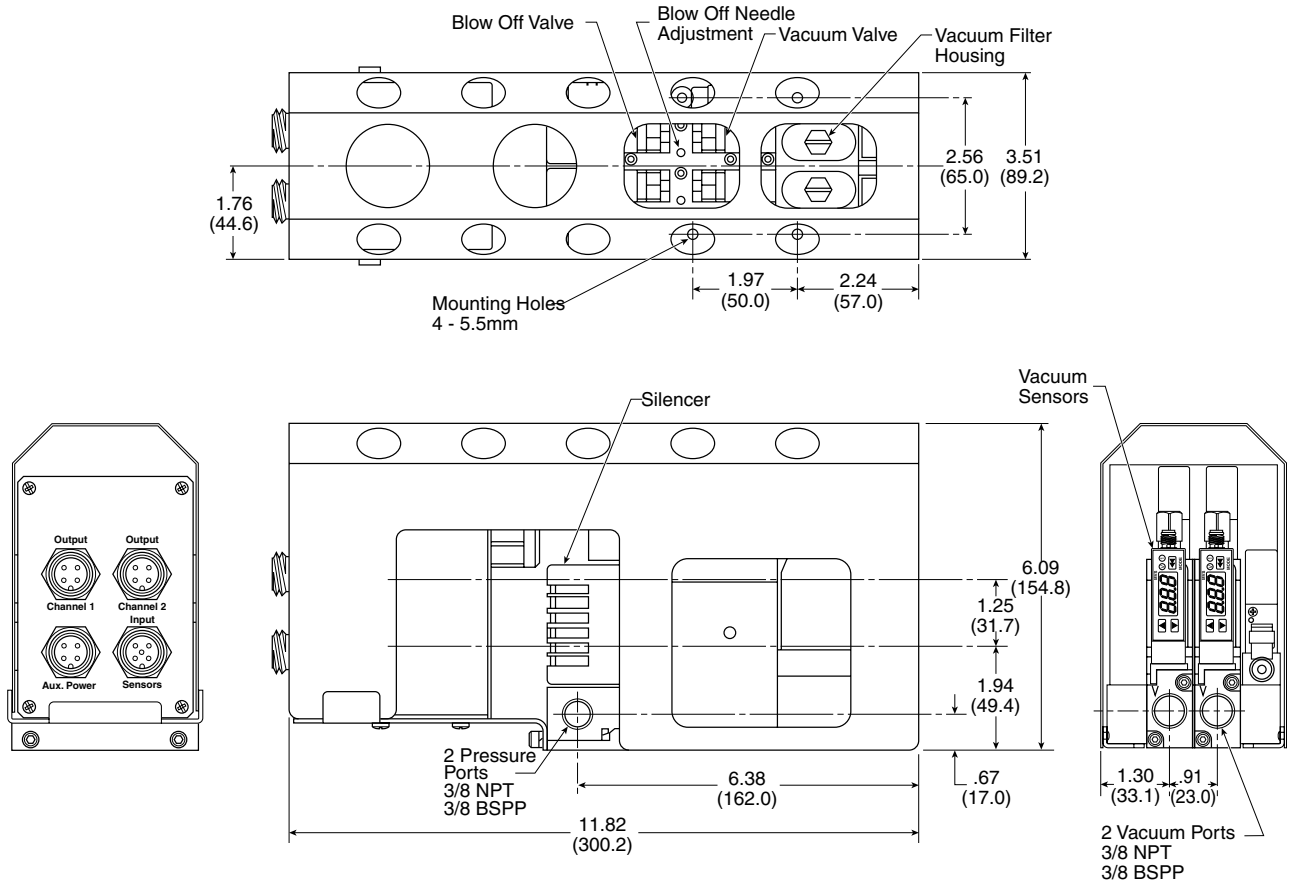
Input Data Table

	Bit							
	0	1	2	3	4	5	6	7
Input Byte 1	CH1 Part Presence	CH2 Part Presence	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used

Output Data Table

	Bit							
	0	1	2	3	4	5	6	7
Input Byte 1	CH1 Vacuum	CH1 Blow-Off	CH2 Vacuum	CH2 Blow-Off	Not Used	Not Used	Not Used	Not Used

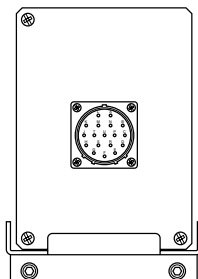
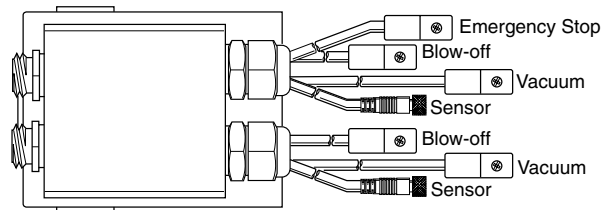
CVX0260BE0SD3*



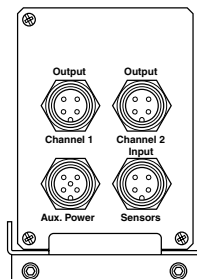
Discrete Kits

PSCVXD3A - M12, 24VDC

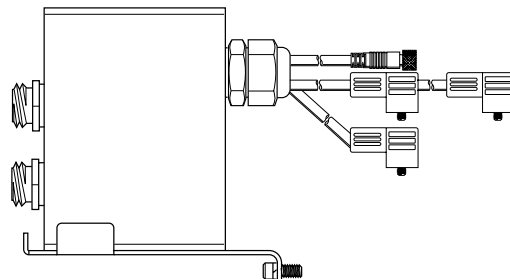
PSCVXN3A - M18, 24VDC



PSCVXN3A



PSCVXD3A



Discrete Units

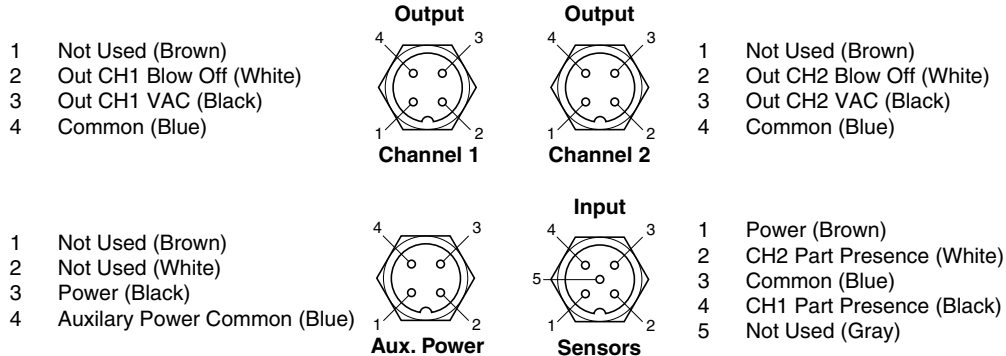
The Discrete units provide M12 or M18 connectors for ease of installation. The circuit includes the Air Economizing Function and PNP (Sourcing) Outputs. *No external PLC programming is required for Air Economizing Functions because this function is built into the electrical unit.* The following are the Pin Outs for these Discrete units.

M12, 24VDC

Output - 4-Pin, M12, Keyed Male

Input - 5-Pin, M12, Keyed Male

Aux. Power - 4-Pin, M12, Keyed Male

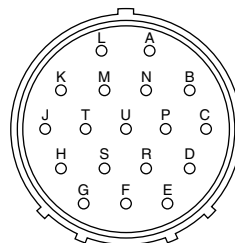


M18, 24VDC

18-Pin Connector

24VDC

- A CH2 Blow Off
- B CH2 Sensor Power
- C CH2 Part Presence
- D CH2 VAC Control
- E CH1 Blow Off
- F CH1 Sensor Power
- G CH1 Part Presence
- H CH1 VAC Control
- J DC Voltage Monitor
- K Common
- L Ground
- M Not Used
- N Not Used
- P Power
- R Not Used
- S Not Used
- T Not Used
- U Not Used

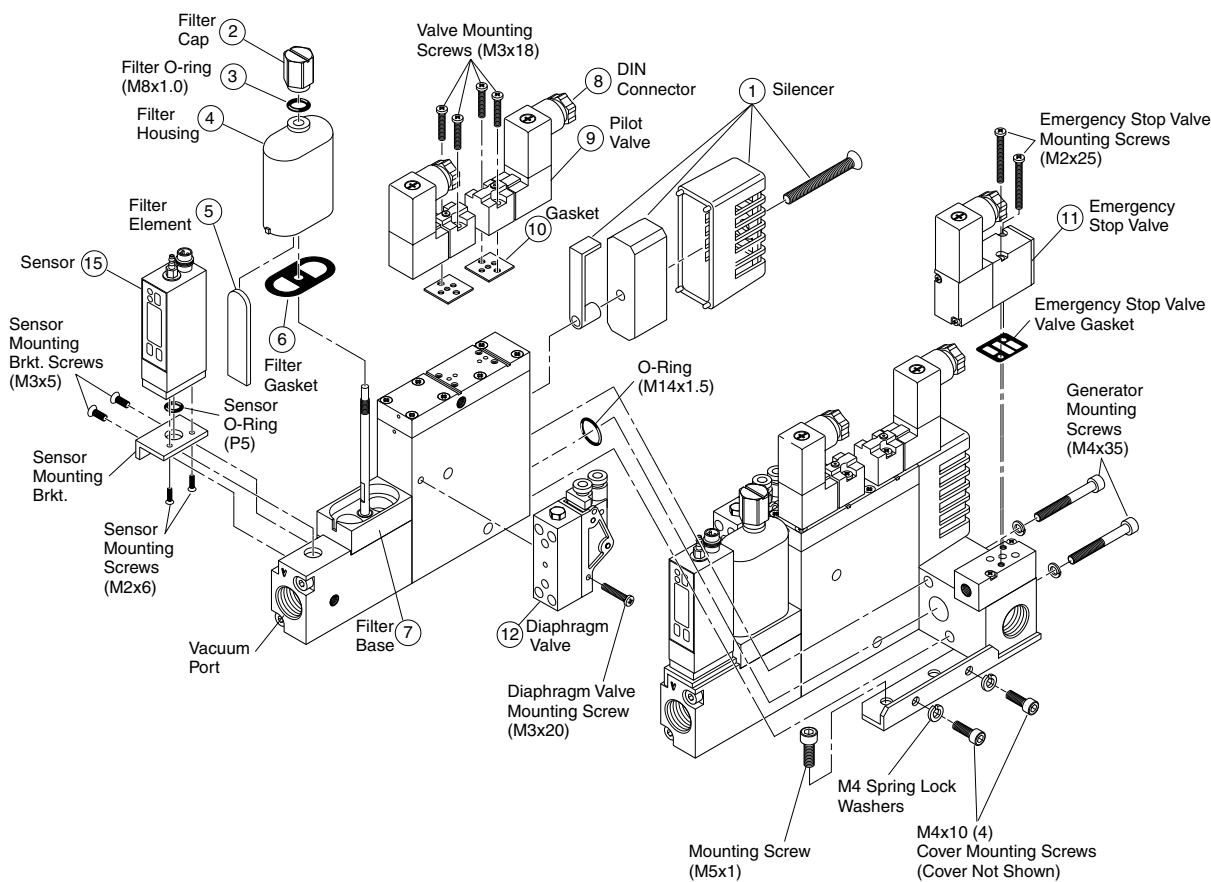
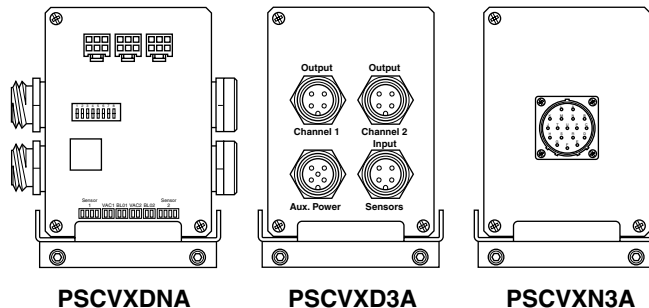


Face View - Male 18-Pin Connector

Note: Pin B & F are jumpered inside unit.
Either pin can connect power to both sensors.

Replacement Components

Item	Part Number	Description
1	CVK-S	Silencer
2 thru 7	CVK-F	Filter Kit
5	CVK-E	Filter Element
8	PESC2020B	DIN Connector
8, 9, 10	P5136-M6L-DC24V	Pilot Valve Kit
11	3PB11900B3DC24	Auxiliary Valve
12	CVM99821	Diaphragm Valve
13	ENC244	Cover (Not Shown)
14	PSCVXDNA PSCVXD3A PSCVXN3A	DeviceNet M12 Discrete 18-Pin Discrete
15	MPS-V2C-NC	NPN Sensor



⚠ Cautions

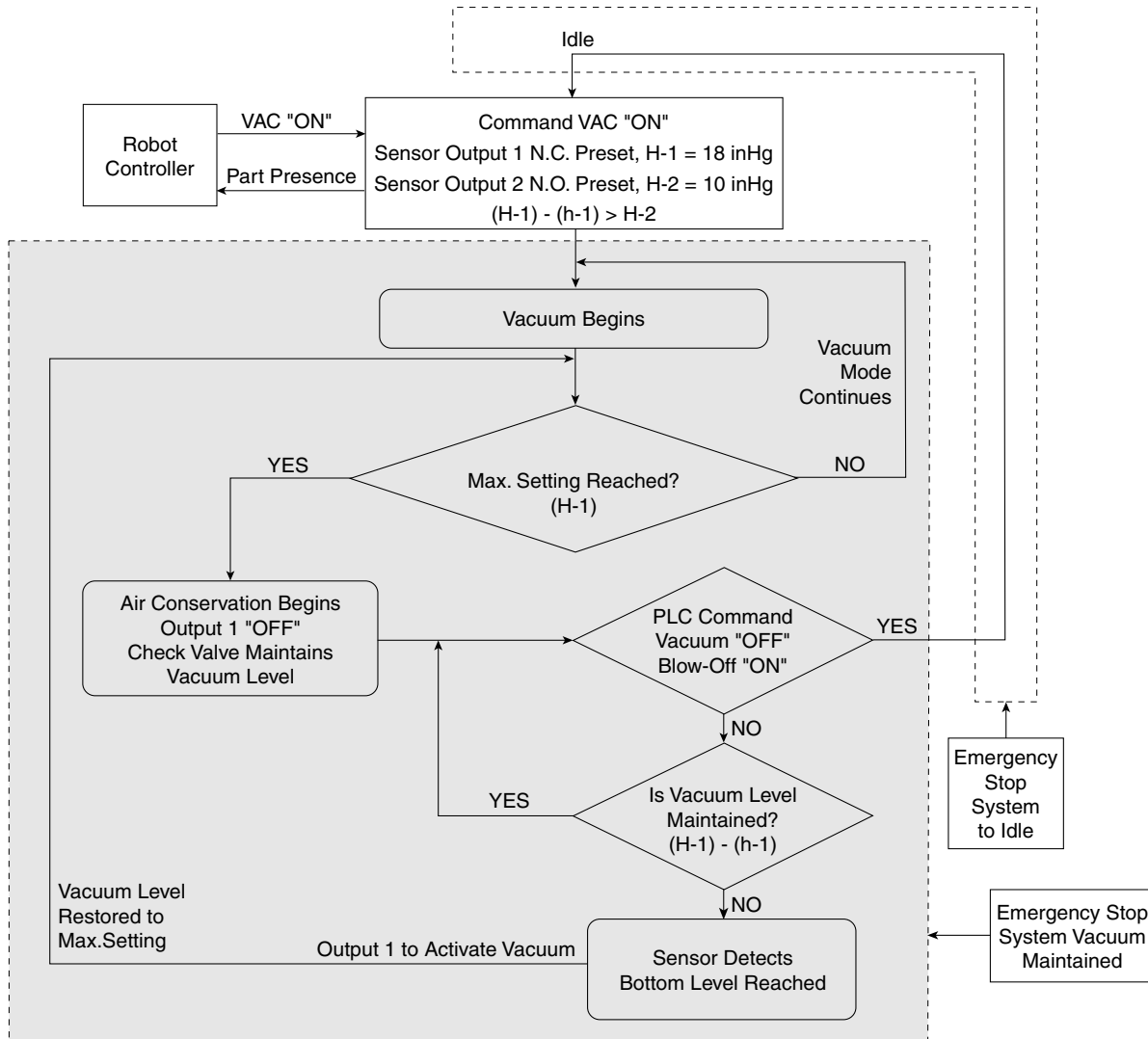
Do not use or expose the CVX with fluids or corrosive gases. Vacuum Venturi's are designed to be used with non-lubricated, non-corrosive, compressed air.

Do not operate CVX generators outside the temperature range and pressures listed in the specifications section of this catalog. Regulate the compressed air to 70PSI and filtrate with a maximum 40 micron filter. Non-lubricated compressed air will maintain the life and vacuum level of the generator.

Check the insulation of all lead wires after installation to avoid shorts. Properly secure all lead wires to avoid stress or repeated movement that may fray lead wires.

Some electrical components are diode or zener diode protected. When installing solenoids and sensors, check the polarity of the component before applying power. Apply the appropriate voltage to the solenoids and sensors. Inappropriate voltage, shorts, or surges may damage the circuitry.

CVX0260B - System Logic



CVX0260B - Emergency Stop Operating System (EOS)

The Emergency Stop Operating System is designed to maintain the last state of operation when an Emergency Stop or power failure occurs.

The chart below illustrates the state of operation in different modes.

Modes	Vacuum On	Vacuum Off	Blow-Off	EOS
Normal Conditions	Air-Economizing between 18-16 inHg	Idle	Blow-Off On Blow-Off Idle	EOS Off
Emergency Stop, Power Failure, Loss of DeviceNet™ Communications or Power	Vacuum On ↓ ↓ ↓ Vacuum On	Idle	Blow-Off On or Idle ↓ ↓ ↓ Idle	EOS On
Restore Power	Vacuum On Air-Economizing Function Resumes	Idle	Idle	EOS Off