

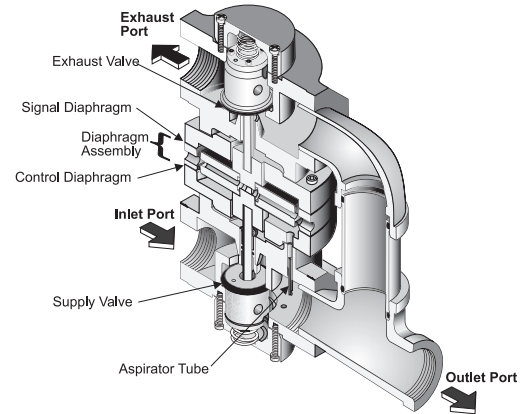
Model 200XLR Pneumatic Volume Booster



Model 200 XLR

Features

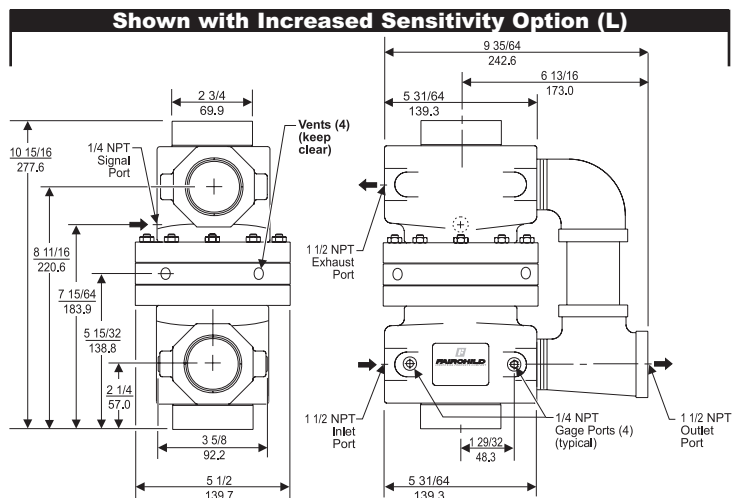
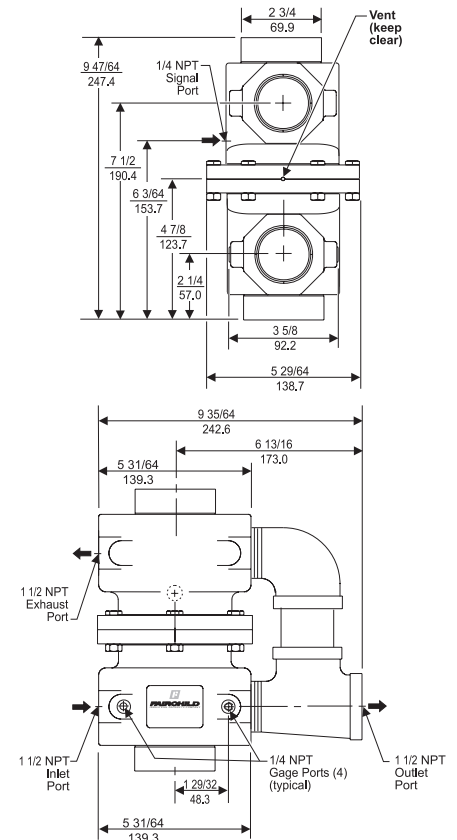
- The Model 200XLR Pneumatic Volume Booster produces a pneumatic signal in a 1:1 ratio. It is ideally suited for systems that require input isolation or increased forward and exhaust flow capacities.
- Control sensitivity to 1" water column variation
- Large supply and Exhaust Valves provide high forward and exhaust flows
- An Aspirator Tube minimizes downstream pressure droop under flow conditions.
- A separate Control Chamber isolates the diaphragm from the main flow to eliminate hunting and buzzing
- Optional Increased Sensitivity configuration with larger Control Diaphragm for more precision control at low setpoints.



Operating Principles

When signal pressure on the top of the signal Diaphragm creates a downward force on the Diaphragm Assembly, the Supply Valve opens. Output pressure flows through the Outlet Port and the Aspirator Tube to the Control Chamber to create an upward force on the bottom of the Control Diaphragm. When the setpoint is reached, the downward force of the signal pressure that acts on the top of the Signal Diaphragm balances with the upward force of the output pressure that acts on the bottom of the Control Diaphragm.

When the output pressure increases above the signal pressure, the Diaphragm Assembly moves upward to close the Supply Valve and open the Exhaust Valve. Excess output pressure exhausts through the Exhaust Port until it reaches the setpoint.



Model 200XLR Pneumatic Volume Booster

Specifications

Flow Capacity (SCFM)

830 (1410 m³/hr) @ 100 psig, [7.0 BAR], (700 kPa) supply and 20 psig, [1.5 BAR], (1500 kPa) setpoint

Exhaust Capacity (SCFM)

325 (552.5 m³/hr) where downstream pressure is 5 psig, [.35 BAR], (35 kPa) above 20 psig, [1.5 BAR], (150 kPa) setpoint

Supply Pressure

250 psig, [17.0 BAR], (1700 kPa) Maximum

Supply Pressure Effect

Less than 0.5 psig, [.03 BAR], (3.4 kPa) for 100 psig, [7.0 BAR], (700 kPa) change in supply pressure

Signal or Output Pressure

150 psig, [10.0 BAR], (1000 kPa) Maximum

Sensitivity

1" (2.54 cm) Water Column

Ambient Temperature

-40°F to +200° F (-40°C to +93° C)

Materials of Construction

Body and Housing Die Cast Aluminum

Trim Stainless Steel, Brass, Aluminum,

. and Zinc Plated Steel

Diaphragms Nitrile on Dacron

Catalog Information

Catalog Number

2001



XLR



Pipe Size

1 1/2" NPT.



Options

Fluorocarbon (Viton) Elastomers



Increased Sensitivity



(for more precision control at low setpoints)

Installation

For installation instructions, see the *Fairchild Model 200XLR Pneumatic Volume Booster Installation, Operation and Maintenance Instructions*, IS-20200XLR.