



## Keeping the World Flowing for Future Generations

The Fairchild Model 200 pneumatic volume booster reproduces a pneumatic signal in a 1:1 ratio. It is ideally suited for systems that require input isolation or increased forward flow capacity.

### Features and benefits

- Control sensitivity to 1" water column variation
- Large supply and exhaust valves provide high forward and exhaust flows
- A balanced supply valve minimizes the effect of supply pressure variation
- 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
- Unit construction lets you service the Model 200 without removing it from the line
- Mounting bracket is available

### 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 and closes the valve to maintain the setpoint.

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 vents in the side of the unit until it reaches the setpoint.



## Model 200 Pneumatic volume booster

### Specifications

#### Maximum supply pressure

- 250 psig, [17.0 bar], (1700 kPa)

#### Flow capacity

- 1800 SCFM (3058 m<sup>3</sup>/hr) @ 150 psig, [10.0 bar], (1000 kPa) supply, 20 psig, [1.5 bar], (150 kPa) setpoint

#### Exhaust capacity

- 65 SCFM (110.5 m<sup>3</sup>/hr) where downstream pressure is 5 psig, [0.35 bar], (35 kPa) above 20 psig, [1.5 bar], (150 kPa) setpoint

#### Maximum signal or output pressure

- 150 psig, [10 bar], (1000 kPa)

#### Supply pressure effect

- Less than 0.5 psig, [0.035 bar], (3.5 kPa) for 100 psig, [7.0 bar], (700 kPa) change in supply pressure

#### Sensitivity

- 1" (2.54 cm) water column

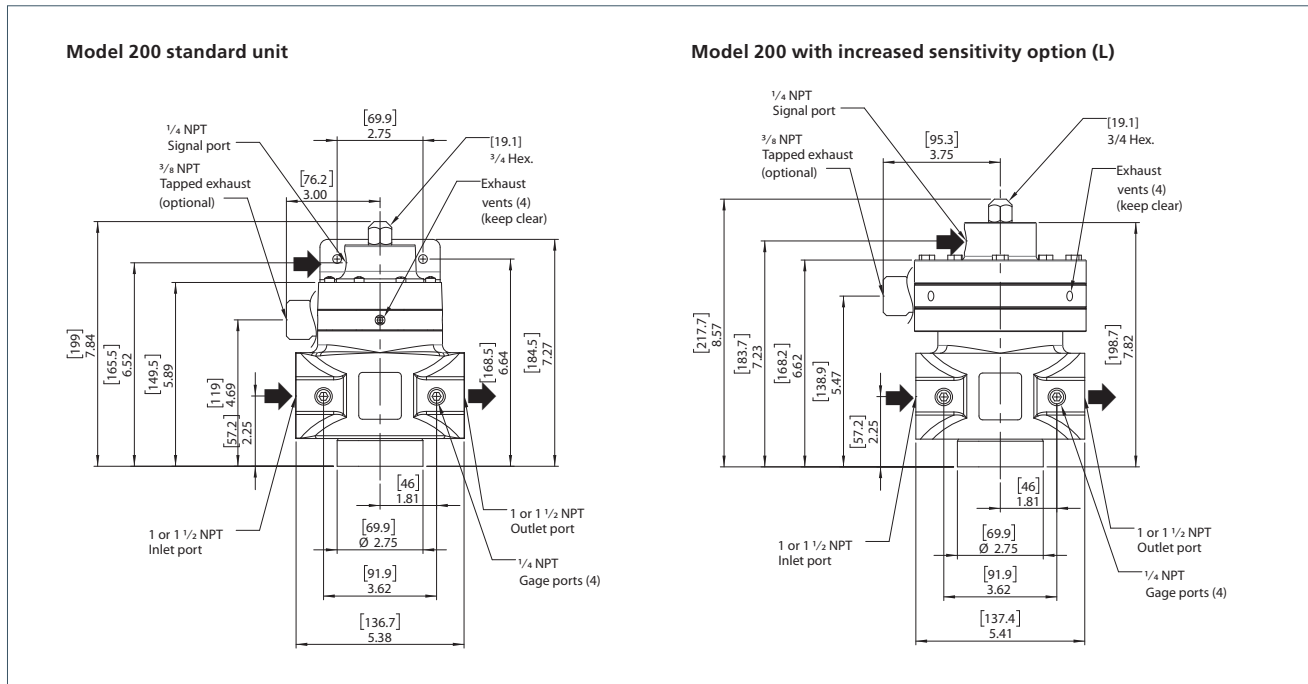
#### Ambient temperature

- -40 to +200 °F, (-40 to +93.3 °C)

#### Materials of construction

- Body and housing: Aluminum  
Trim: Aluminum, stainless steel, zinc plated steel, brass  
Diaphragms: Nitrile on polyester

### Dimensions



### Product code

2001 08 E

#### Pipe size

08 = 1" NPT  
12 = 1 1/2" NPT

#### Options

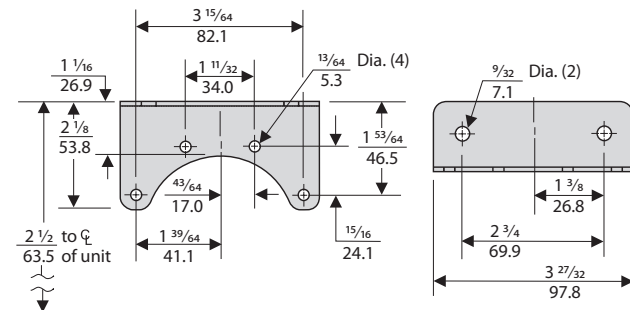
E = Tapped exhaust  
L = Increased sensitivity (for more precision control at low setpoints)  
N = Non-relieving  
J = Viton elastomers  
H = BSPP (parallel)<sup>1</sup>

<sup>1</sup> BSPP threads in inlet and outlet ports only. Others BSPT.

For installation instructions, refer to the *Fairchild Model 200 pneumatic volume booster installation, operation and maintenance instructions*, IS-20000200.

### Mounting bracket kit

P/N 10311 (sold separately)



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