

MODEL 202 FLOW CONTROLLER

Technical Note 614

The Model 202 is an upstream-referenced flow controller; that is, the flow rate remains constant as long as the upstream (inlet) pressure is held constant, even during downstream pressure fluctuations from column switching, temperature programming, sequence reversal, or back-flushing.

The Model 202 features a unique span adjustment, which is used to set the maximum flow required. The control stem is then used to make fine adjustments over the entire range.

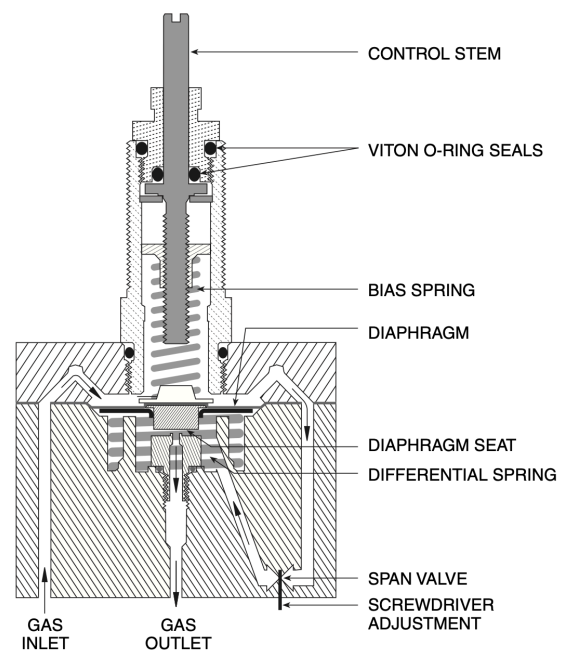
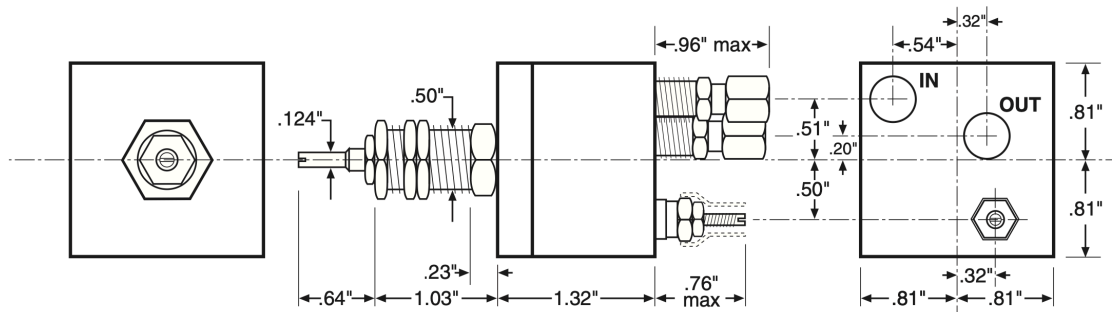
SPECIFICATIONS

Maximum flow may be as low as 5 mL/min or as high as 1.6 L/min. Maximum operating pressure is 200 psi; maximum temperature is 120°C.

The Model 202 will accurately maintain the set flow rate in spite of fluctuating downstream pressure—even if the fluctuation is to within 7.5 psi of the supply pressure. When the flow controller is equipped with the optional Spectrol digital dial, settings are reproducible to better than 1%.

NOTE: With all our flow controllers, the inlet pressure must exceed the outlet pressure by 10 psi.

DIMENSIONS

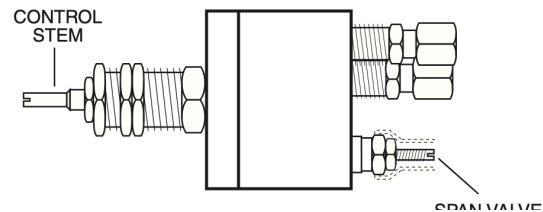


SETTING THE MAXIMUM FLOW

The Model 202 has two settings for adjusting flow—the control stem and the span valve. Basically, the span valve (needle valve) sets the maximum desired flow, while the control stem makes fine adjustments over the entire range from off to maximum.

To set maximum flow:

1. Open the control stem all the way.
2. Adjust the span valve to obtain the maximum flow required (determined with a flow meter), and then leave it alone.
3. Use the control stem to adjust the flow to the various levels required.



OPTIONAL SPECTRAL DIGITAL DIAL

The dial numbers do not relate to actual flows. They are simply reference numbers that facilitate repeatability; once the desired flow rate is established with a flow meter, making note of the numbers allows the control stem to be returned to that precise setting. The flow meter is not required after the initial settings are determined.

FLOW CHARACTERISTICS

At 40 psig nitrogen

