

Model 300 Flow Controller

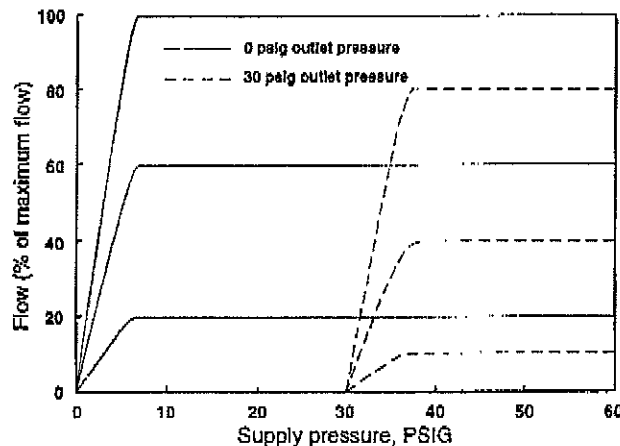
Post-it® Fax Note	7671	Date	2/22	# of pages▶
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Basic Features

The Model 300 is our *downstream*-referenced flow controller, maintaining a constant flow rate as long as the outlet pressure remains constant. (Most users allow the gas to be released at atmospheric pressure.) While the supply pressure might fluctuate from variations in sampling pressure or from chemical reactions taking place, the flow rate remains stable.

Reliable Flow Rates

The Model 300 will accurately maintain the set flow rate in spite of fluctuating upstream pressure – even if the fluctuation is to within 7.5 psi of the outlet pressure. When the flow controller is equipped with the optional Spectrol digital dial, settings are reproducible to better than 1%.



Wide Range of Maximum Flow Capacities

Maximum flow may be as low as 100 mL/min or as high as 1.5 L/min.

Unique Design Features

The diaphragm cavity is designed to eliminate damage to the diaphragm which can result from abnormal operating sequences. We've also managed to get rid of the unpurged dead leg present in many designs. The orifice pin is non-rotating, further insuring flow reproducibility, and the close fit of the precision valve stem in the long bearing surface of the valve nut minimizes any effects from non-rotational force applied accidentally.

Materials of Construction

All Condyne flow controllers are precision-machined from aluminum or stainless steel bar stock, eliminating the possibility of contamination or porosity often introduced in die-cast processes. Standard materials of construction are aluminum body, brass operators, and Viton seals and diaphragm. A stainless steel body is available for use in ultrapure or corrosive systems, and either body may be ordered with a stainless steel diaphragm.

Operating Parameters

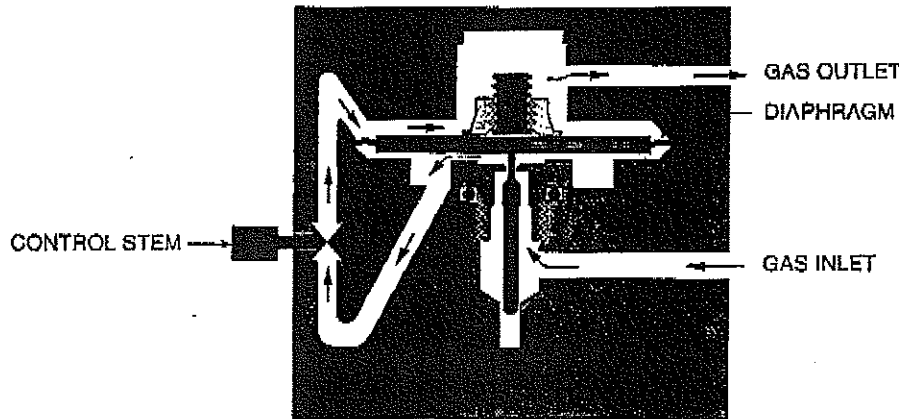
Maximum operating pressure is 200 psi; maximum temperature is 120°C.

A downstream-referenced flow controller – unique in the flow controller market

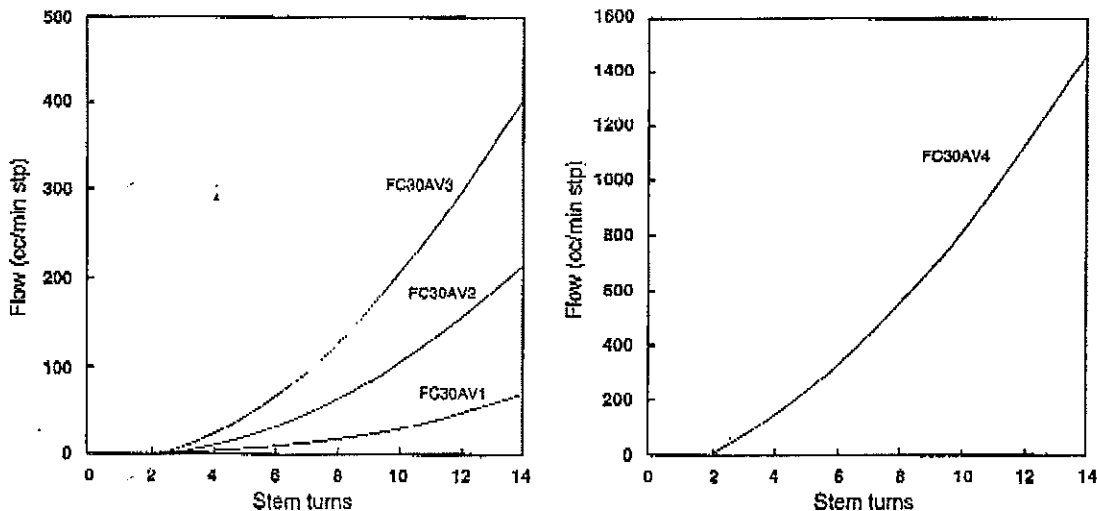
Applications

- ▶ Sample flow control in stream sampling systems
- ▶ Constant flow control for pneumatic gauging instrumentation
- ▶ Control of reactant or purge gases
- ▶ Control of gases in analysis standards

Schematic Drawing



Flow Characteristics



Model 300 flow characteristics
with 40 psig nitrogen, outlet to atmosphere

Convenience and flexibility for GC and other instrumentation applications

Specifications

Flow rate adjustment	Non-rising stem gives 0 to 100% increase over 15 clockwise turns.
Downstream pressure effect	< .017% per psi of variation in downstream pressure for all flows above 25% of the set span.
Shut-off	Positive shut-off
Maximum operating pressure	200 psig
Maximum operating temperature	120°C
Mounting	1/2" panel hole
Connections	1/8" Swagelok®
Materials exposed to gas flow	Standard model: Aluminum, brass, stainless steel, and Viton Stainless steel model: Stainless steel, Viton <i>Both available with stainless steel diaphragm</i>

Dimensions

