



## Introduction to Air Logic

The Air Logic Division of Fred Knapp Engraving Company designs and manufactures a comprehensive line of pneumatic and vacuum control equipment – sensing and input elements, control elements, output interface devices and complete air supply systems. The control elements include both fluidic and moving diaphragm control components, each to be used where its own advantages are needed.

Air Logic is a manufacturer of various pneumatic accessories, ideal for instrumentation, medical and industrial applications.

The pneumatic accessories include Check Valves, Orifice Restrictors, Filtered Orifice Restrictors, Needle Valves, miniature Inline Filters and Preset Flow Controls.

The Check Valves feature miniature size, low cracking pressure and excellent repeatability.

The Orifice Restrictors are precision molded of polysulfone and are available in three models: 1) For inline installation, 2) Available with barbs for 1/16" or 1/8" I.D. flexible tubing or 3) Encased in a 10-32 barbed fitting.

The Filtered Orifice Restrictor contains an orifice restrictor and a stainless filter which are encased in the same housing. The filter is designed to remove most contaminate particles and protects the orifice restrictor.

The fine threads of the Needle Valve permit excellent adjustment for precise control of flow. Miniature size, sensitive adjustment and excellent repeatability are the features of Orifice Restrictors and Needle Valves.

The miniature Inline Filters are designed for a low pressure drop through the filter.

The Preset Flow Control maintains a constant flow in one direction and full flow in the opposite direction.

Air Logic manufactures a comprehensive and sophisticated line of pneumatic and vacuum components, with a strong reputation for immediate service, quality and dependability. For special applications and requirements, call Air Logic.

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## F-2804 Series Preset Flow Control



The Preset Flow Control maintains a constant flow in one direction and full flow in the opposite direction. The operation of the Flow Control is based on the movement of a small disc. The disc shifts within the housing as the pressure differential changes from forward to reverse. An orifice restrictor is encased in the center of the disc. A flat surface on one side of the disc seals and permits flow through the orifice.

The amount of flow permitted in the reverse direction, which is the sealing side, is determined by the orifice size. The amount of flow permitted in the forward direction is full flow.

- FEATURES**
- Precision Molded Orifice
  - Miniature Size
  - Minimum Cracking Pressure
  - Low Cost

### SPECIFICATIONS

Maximum Supply: 75 PSI  
 Operating Temperature: 40° to 120°F. (5° to 48°C.)  
 Recommended Filtration: 5 micron  
 Cracking Pressure: Less than 10" H<sub>2</sub>O

### MATERIALS

Orifice: Polysulfone  
 Housing: Gray Polysulfone  
 Disc: Silicone

### MOUNTING

Inline

### PORT CONNECTIONS

10-32 Threads, 10-32 Nipple is Supplied

**ORDERING INFORMATION (Order by model number, specify orifice diameter and accessory letters required.)**

**F-2804-404** — **050** — **B85**

Model Number	Orifice Diameter	Port Connections
F-2804-404	041-0.004"	<b>B80</b> - Barbs for 1/16" I.D. tubing  <b>B85</b> - Barbs for 1/8" I.D. tubing  No accessory numbers required for 10-32 nipple
F-2804-404	050-0.005"	
F-2804-404	051-0.006"	
F-2804-404	071-0.007"	
F-2804-404	101-0.010"	
F-2804-404	121-0.012"	
F-2804-404	161-0.016"	
F-2804-404	201-0.020"	
F-2804-404	251-0.025"	
F-2804-404	301-0.030"	
F-2804-404	401-0.040"	

### DIMENSIONS

