New to the Cordis family is the highly anticipated Electronic Flow Controller. Different from the Cordis Pressure Controller, the Flow Controller utilizes an extremely fast reacting mems technology sensor upstream of Clippard’s proportional valve. Adding the optional M-DR-2 Regulator for accurate and precise pressure control makes for a very small, compact package by eliminating the need for an external regulated supply. Unlike other mass flow controllers that require a 30-minute warm-up period, large differential pressures, limited flow ranges, the Cordis Flow Controller requires less than one minute warm-up, Pressure drop is equal to or less than 356 mm H2O, and flow ranges as low as 0 to 30 sccm. The Cordis Flow Controller comes with standard control options such as 0.2 to 10 VDC, 4.32 to 20 mA and 3.3 VDC Serial. This flow controller allows for the same customer custom changes within their application as the Cordis Pressure Controller. This controller also comes in an IP65 housing for light industrial applications when needed.

The Cordis uses a micro-controller, integral flow sensor, M-DR-2 regulator and one proportional valve. Supply gas is connected to the regulator which accurately maintains pressure to the flow sensor and the Clippard M-EVP or M-DVP proportional valve. As command is increased, the comparative circuit opens the valve to allow flow to pass through the onboard flow sensor which in turn provides an active feedback signal for the micro-controller to satisfy the flow setpoint in the process. If at any point the flow sensor detects a value higher or lower than the setpoint command, the proportional valve will modulate more or less output to maintain a stable and accurate control of flow in the process.

- Compact size and weight
- ≤356 mm H2O pressure drop
- <50 ms response time
- ≤25 mV resolution
- Multiple low flow ranges
- OEM style card unit or IP65 housed

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>15 to 24 VDC</td>
</tr>
<tr>
<td>Current Draw</td>
<td>≤250 mA max.</td>
</tr>
<tr>
<td>Protection Rating</td>
<td>IP65 (housed unit only)</td>
</tr>
<tr>
<td>Warm-Up Period</td>
<td>&lt;1 minute</td>
</tr>
<tr>
<td>Signal/Command</td>
<td>Electrical: 0.2 to 10 VDC or 4.32 to 20 mA</td>
</tr>
<tr>
<td></td>
<td>Serial: 3.3 VDC</td>
</tr>
<tr>
<td>Turndown Ratio</td>
<td>50:1</td>
</tr>
</tbody>
</table>

**Medium**

- Clean, dry, non-corrosive gases

**Wetted Material**


**Valve Type**

- Normally-Closed Proportional

**Operating Flow Range**

- Minimum: 0 to 15 sccm
- Maximum: 0 to 6 l/min

**Flow Range Sensors**

- 0 to 0.03 l/min, 0 to 0.2 l/min, 0 to 0.5 l/min, 0 to 1 l/min, 0 to 4 l/min, 0 to 6 l/min

**Max. Inlet**

- 4 bar

**Typical Response Time**

- <50 ms (application dependent)

**Accuracy**

- ≤2% of Full Scale

**Resolution**

- ≤25 mV

**Max. Hysteresis**

- ≤1%

**Repeatability**

- ≤1%

**Linearity**

- ≤1%

**Pressure Drop**

- ≤356 mm H2O

**Port Size**

- 1/8” NPT, G1/8

**Temperature Range**

- Proportional Valve: 0° to 49°C

**Mounting Attitude**

- Any

**Filtration**

- 40 micron

**More Details**

- clippard.com/link/cordis

Clippard’s proven M-DVP and M-EVP proportional valves provide fast, stable control of flow.
## ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Porting</th>
<th>Signal/Command</th>
<th>Regulated Supply</th>
<th>Supply Pressure Range</th>
<th>Calibrated Flow Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFC</td>
<td>Flow Control</td>
<td>Card Unit</td>
<td>F 1/8” NPT</td>
<td>E 0.2 to 10 VDC</td>
<td>A No Regulator</td>
<td>A 0 to 0.03 l/min</td>
</tr>
<tr>
<td>CFC</td>
<td>H Housed Unit</td>
<td>G G1/8</td>
<td>R 3.3 VDC Serial</td>
<td>-B Clippard DR-2 Regulator</td>
<td>B 0 to 0.2 l/min</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I 4.32 to 20 mA</td>
<td></td>
<td>C 0 to 0.5 l/min</td>
<td></td>
</tr>
</tbody>
</table>

### Accessories
- CPCH-C1 Actuation Cable, 8-Pin, 6’
- CPCH-C2 3.3 VDC Serial Cable, 3’
- CPCH-CA6 Power Cord, 6’ (card unit only)

**Example Part No.** CFC-CFE-BAC

### CFC-C Card Unit

![CFC-C Card Unit Diagram]

### CFC-H Housed Unit

![CFC-H Housed Unit Diagram]