**Precision Air Pressure Regulator for Microinjection**

30-40 PSI Compressed Air Input

- **15 PSI Step-Down Regulator**
- **Electronic Pressure Regulator**
  (see below)

Inject

To Needle

**Vent**

Clippard FTV-3P

**Purge**

Clippard FV-3P

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**Electronic Pressure Regulator**

15 PSI Input

- **Needle Valve**
  Clippard MNV-2

- **Electronic Valve 1**
  Clippard EV2-12

- **Electronic Pressure Gauge**
  Omega PX142-15G5V

- **Air Reservoir**
  ~20ml strong container

Inject

**Vent**

Controller Circuit

- **Needle Valve**
  Clippard MNV-2

- **Electronic Valve 2**
  Clippard EV2-12
**Controller Circuit**

**Calibration**

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Supply</td>
<td>+12V, -12V</td>
</tr>
<tr>
<td>Voltage to Pressure Sensor</td>
<td>TP1 = 1.000V</td>
</tr>
<tr>
<td>R17</td>
<td>TP2 = 8.0V</td>
</tr>
<tr>
<td>R18</td>
<td>TP3 = -8.0V</td>
</tr>
<tr>
<td>R16</td>
<td>In-L of DP1 = 1.000V</td>
</tr>
</tbody>
</table>

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