Series AK 1100
Absolute Pressure Regulator
Low flow – Sub-atmospheric

- Vacuum to 300 psig (21 bar) inlet, 100 mm Hg absolute outlet
- Flow rate to 500 sccm
- Stainless Steel or Brass construction
- Ni-Cr-Mo alloy internals, ‘SH’ option, for added corrosion resistance
- High leak integrity
- Machined from bar stock
- Optional accessories
- Fine adjustment control (six turns of the knob from off to wide open)
- Cleaned for O2 service
- Field repairable
- Diffusion resistant Stainless Steel diaphragm
- Knob LOTO option (refer to AP KL data sheet)
- Installation and operating instructions available at www.aptech-online.com

**Operating Parameters**
- Source pressure: 300 psig (21 bar)
- Delivery pressure: 100 mm Hg absolute to 10 psig
- Proof pressure: 150% of operating pressures
- Burst pressure: 300% of operating pressures

**Other Parameters**
- Inlet/outlet ports: 1/4" NPT, 1/4" & 3/8" compression (optional porting available)
- Flow coefficient, Cv: 0.05
- Internal volume: 0.49 in³ (8 cm³)
- Operating temperature: -40º to +160ºF (-40º to +71ºC)*
- Leak rate: 1 x 10⁻⁹ sccs

**Materials of Construction**

<table>
<thead>
<tr>
<th></th>
<th>AK 1100B</th>
<th>AK 1100S</th>
<th>AK 1100SH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>brass</td>
<td>SS 316L</td>
<td>SS 316L</td>
</tr>
<tr>
<td>Poppet and diaphragm</td>
<td>SS 316</td>
<td>PCTFE (Polyimide and PEEK® Opt)</td>
<td>Ni-Cr-Mo alloy / UNS N06022</td>
</tr>
<tr>
<td>Seat</td>
<td>PCTFE</td>
<td>PCTFE</td>
<td>PCTFE</td>
</tr>
<tr>
<td>Bonnet</td>
<td>SS 303</td>
<td>SS 303</td>
<td>SS 303</td>
</tr>
</tbody>
</table>

*VS option 14º to 194ºF (-10º to +90ºC). All specifications subject to change without notice.

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All dimensions in inches (mm). Metric dimensions are for reference only.

### Porting Configurations

<table>
<thead>
<tr>
<th>2P</th>
<th>3P</th>
<th>4P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**NOTE:** Brass only available with 4PL or 5PC porting.

**CAUTION:** Product selection is the sole responsibility of the user, regardless of any recommendations or suggestions made by the factory. The user shall make selections based upon their own analysis and testing with regard to function, material compatibility and product ratings. Proper installation, operation and maintenance are also required to assure safe, trouble free performance.

### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Series</th>
<th>Material</th>
<th>Port Configuration</th>
<th>Ports</th>
<th>Ports (Gauge/Accessory)</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>AK 1101</td>
<td>S</td>
<td>2P = 2 Ports</td>
<td>4</td>
<td>0 = No gauge or device installed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>3P = 3 Ports</td>
<td>4</td>
<td>1 = 30-0-100 psig/bar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>4P = 4 Ports</td>
<td>4</td>
<td>2 = 0-200 psig/bar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>4P = 4 Ports</td>
<td>4</td>
<td>3 = 0-400 psig/bar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>5PC = 5 Ports</td>
<td>4</td>
<td>4 = Panel installation*</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Designators required for all ports, but "0" not required if there isn’t a port. A 2P has designators only for 1 & 2 ports, as example AK 1101 S 2P 44 not AK 1101 S 2P 44 000.

*Panel hole 1.42 diameter.

AP Tech has product options and variations which are not documented in data sheets. If you have a model number that is not defined by the ordering information, please consult the factory or your local representative.