**Series AK 100**

**Single Stage Pressure Regulator**

**Compact design for instrumentations**

- Vacuum to 3,000 psig (207 bar) inlet, 150 psig (10 bar) outlet
- Flow capacity* to 30 slpm (1 scfm)
- Stainless Steel construction
- 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
- Installation and operating instructions available at [www.aptech-online.com](http://www.aptech-online.com) in the Tech Briefs section

### Engineering Data

**Operating Parameters**

<table>
<thead>
<tr>
<th>Source pressure</th>
<th>Delivery pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>vacuum to 3,000 psig (207 bar)</td>
<td>AK 101 A 100 mm Hg absolute to 10 psig (0.7 bar)</td>
</tr>
<tr>
<td>vacuum to 300 psig (21 bar)</td>
<td>AK 101</td>
</tr>
<tr>
<td>AK 101A</td>
<td>AK 102</td>
</tr>
<tr>
<td>AK 101</td>
<td>AK 110</td>
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<tr>
<td>AK 115</td>
<td>5 to 150 psig (0.2 to 10 bar)</td>
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</tbody>
</table>

- Proof pressure 150% of maximum rating
- Burst pressure 300% of maximum rating

**Other Parameters**

- Inlet/outlet ports 1/8” and 1/4” NPT; 1/4” compression (optional porting available)
- Flow coefficient, Cv 0.04
- Internal volume 0.23 in³ (3.7 cm³)
- Operating temperature -40º to +160ºF (-40º to +71ºC)
- Leak rate 1 x 10⁻⁹ scs
- Supply pressure effect 0.4 psig per 100 psig source pressure change

### Materials of Construction

<table>
<thead>
<tr>
<th>AK 100S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
</tr>
<tr>
<td>Poppet and diaphragm</td>
</tr>
<tr>
<td>Seat</td>
</tr>
<tr>
<td>Bonnet</td>
</tr>
</tbody>
</table>

* Flow rating based upon N2 @ 100 psig inlet, varying gas type and, or inlet/outlet pressures may effect rating.

**All specifications subject to change without notice.**
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 101 S 2P 44 not AK 101 S 2P 44 000.

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.

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.