SERIES AK 1500
SINGLE STAGE PRESSURE REGULATOR
TIED DIAPHRAGM—BUILT FOR SAFETY

- Vacuum to 3,500 psig (241 bar) inlet, 150 psig (10 bar) outlet (optional inlet 4,500 psig (310 bar))
- Flow capacity* 0 to 30 slpm (0 to 1 scfm) HF to 120 slpm (4 scfm)
- 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
- Installation and operating instructions available at www.aptech-online.com

ENGINEERING DATA

Operating Parameters
Source pressure vacuum to 3,500 psig (241 bar) HR option vacuum to 4,500 psig (310 bar)**
Delivery pressure AK 1502 1 to 30 psig (0.07 to 2 bar) AK 1510 2 to 100 psig (0.14 to 7 bar) AK 1515 5 to 150 psig (0.35 to 10 bar)
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
Flow coefficient, Cv 0.09 (0.15 HF option)
Internal volume 0.49 in³ (8 cm³)
Operating temperature -40° to +160°F (-40° to +71°C)***
Leak rate 1 x 10⁻⁹ sccs
Supply pressure effect 0.25 psig per 100 psig source pressure change
HF 0.75 psig per 100 psig source pressure change

MATERIALS OF CONSTRUCTION

<table>
<thead>
<tr>
<th></th>
<th>AK 1500B</th>
<th>AK 1500S</th>
<th>AK 1500SH</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, PEEK Opt.)</td>
<td>Ni-Cr-Mo alloy / UNS N06022</td>
</tr>
<tr>
<td>Seat</td>
<td>PCTFE (Polyimide, PEEK Opt.)</td>
<td>PCTFE (Polyimide, PEEK Opt.)</td>
<td>PCTFE (PEEK Opt.)</td>
</tr>
<tr>
<td>Bonnet</td>
<td>SS 303</td>
<td>SS 303</td>
<td>SS 303</td>
</tr>
</tbody>
</table>

*Flow rating based upon N2 @ 100 psig inlet, varying gas type and, or inlet/outlet pressures may effect rating.
**HR option not available in brass.
***Optional temperature ranges available. Please consult factory. VS option 14° to 194°F (-10° to +90°C).
All specifications subject to change without notice.
**Ordering Information**

<table>
<thead>
<tr>
<th>AK 1510 Series</th>
<th>S Material</th>
<th>5PC Ports</th>
<th>4 4</th>
<th>0 4 1</th>
<th>P Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>AK 1502 = 1-30 psig (.07 to 2 bar)</td>
<td>S = Stainless steel (SS)</td>
<td>2P = 2 Ports</td>
<td>4 = 1/4 inch NPT</td>
<td>0 = No gauge or device installed</td>
<td>VS = Polyimide seat</td>
</tr>
<tr>
<td>AK 1510 = 2-100 psig (.14 to 7 bar)</td>
<td>SH = SS with Ni-Cr-Mo alloy internals</td>
<td>3P = 3 Ports</td>
<td>4T = 1/4 inch compression</td>
<td>V3 = 30-0-30 psig/bar</td>
<td>PK = PEEK seat</td>
</tr>
<tr>
<td>AK 1515 = 5-150 psig (.35 to 10 bar)</td>
<td>B = Brass</td>
<td>4P = 4 Ports</td>
<td>1 = 30-0-100 psig/bar</td>
<td>V2 = 0-200 psig/bar</td>
<td>P = Panel installation*</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 1510 S 2P 44 not AK 1510 S 2F 44 000.

*Panel hole 1.42 diameter.
**Not available in brass or with HF option.

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.

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

All dimensions in inches.

Metric dimensions (mm) are for reference only.

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