GateKeeper®
GPU 15
Gas Purifiers

Superior purity control

Entegris’ GateKeeper® GPU gas purifiers were designed to improve purity consistency, lifetime and final purity. Leveraging its expertise in material science, Entegris has developed a new generation of purification products that deliver unsurpassed value and performance. The model 15 is designed for peak flow rates up to 500 sccm.

FEATURES & BENEFITS

| Process control and protection | Purity control to ppt levels  
|                               | Low pressure drop across the purifier  
|                               | CE certified to the Pressure Equipment Directive (PED) and manufactured in an ISO® 9001:2000 facility  

| Cost effective | Regenerable – eliminates disposal issues and costs  
|                | Long lifetime – improved cost of ownership  

| Safe and simple to use | Use ambient temperature purification – no heat or power required to operate  
|                        | Insensitive to orientation (horizontal/vertical)  

PERFORMANCE DATA

Pressure Drop vs. Gas Flow Rate*

*The flow rate displayed on this graph may exceed maximum flow rate specification of the purifier model referenced in this data sheet. Please refer to maximum flow rate in the specifications section of this data sheet.

Note: Pressure drop may vary depending on media type.
### AVAILABLE MEDIA

<table>
<thead>
<tr>
<th>Media</th>
<th>Gases purified</th>
<th>Contaminants removed</th>
<th>Outlet purity</th>
<th>Nominal flow rate³</th>
</tr>
</thead>
<tbody>
<tr>
<td>IX</td>
<td>N₂, Noble gases</td>
<td>H₂O, O₂, CO, CO₂, H₂</td>
<td>&lt;100 ppt in Ar and N₂</td>
<td>0.28 slpm</td>
</tr>
<tr>
<td></td>
<td>Freon¹ 13, 14, 23, 41, 116, 218</td>
<td>H₂O, O₂</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TX</td>
<td>CDA, N₂, Noble gases, CO₂, NH₃</td>
<td>Condensable organics (as Toluene)</td>
<td>&lt;1 ppt</td>
<td>0.13 slpm⁴</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-condensable organics (as Butane)</td>
<td>&lt;5 ppt</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Refractory compounds (as HMDSO)</td>
<td>&lt;1 ppt</td>
<td></td>
</tr>
<tr>
<td>WX</td>
<td>CDA, H₂, N₂, Noble gases, CO₂, NH₃, AsH₃, PH₃, GeH₄, SiH₄</td>
<td>H₂O</td>
<td>&lt;100 ppt in N₂</td>
<td>1.47 slpm⁵</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&lt;12 ppb in NH₃</td>
<td></td>
</tr>
</tbody>
</table>

¹ Removal of H₂O and O₂ only.
² Consult Entegris with specific non-condensable contaminants.
³ With a 1 ppm H₂O impurity inlet challenge
⁴ With a 1 ppm Toluene impurity inlet challenge over 1 year
⁵ Lifetime will exceed 1 year at its maximum flow rate

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### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials of construction (housing)</td>
<td>316L stainless steel, electropolished</td>
</tr>
<tr>
<td>Particle filtration type</td>
<td>Wafergard® – 316L stainless steel membrane</td>
</tr>
<tr>
<td>Particle retention</td>
<td>Up to 6 LRV* for particles larger than 0.003 µm</td>
</tr>
<tr>
<td>Filtration removal rating</td>
<td>≥0.003 µm</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>0 – 65°C (32 – 149°F)</td>
</tr>
<tr>
<td>Operating pressure</td>
<td>1.01 barg – 137.8 barg (0 psig – 2000 psig)</td>
</tr>
<tr>
<td>Maximum flow rate</td>
<td>500 sccm</td>
</tr>
<tr>
<td>Fitting size and type</td>
<td>¼” gasket seal**</td>
</tr>
<tr>
<td>Fitting configuration</td>
<td>Male-to-male</td>
</tr>
<tr>
<td>Leak rating</td>
<td>1 × 10⁻⁹ atm cc/sec</td>
</tr>
<tr>
<td>Dimensions</td>
<td>84 mm (3.31”) L × Ø25.4 mm (1”)</td>
</tr>
<tr>
<td>Approximate weight</td>
<td>0.2 kg (0.4 lb)</td>
</tr>
</tbody>
</table>

*Referenced as most penetration particle size.
**Also referred to as VCR® or face seal.
### ORDERING INFORMATION

**GateKeeper GPU 15 Gas Purifiers: part number**

<table>
<thead>
<tr>
<th>GPU</th>
<th>S</th>
<th>15</th>
<th>F</th>
<th>04</th>
<th>R</th>
</tr>
</thead>
</table>

- **Designator**
  - A = New/standard
  - R = Regen*
- **Region**
  - C = CE/PED
- **Options**
  - 00 = None
  - 02 = Dual valves
  - 03 = 3VB (3-valve bypass manifold)
  - 05 = 5VB (5-valve bypass manifold)
  - 06 = BTI (Break thru indicator)
- **Configuration**
  - R = Male-to-male
- **Fitting size**
  - 04 = ¼”
- **Media**
  - IX
  - TX
  - WX
- **Filtration**
  - F = 0.003 μm 316
- **Model**
  - 15 (size of vessel)
- **Materials**
  - S = 316L stainless steel

*Contact Entegris to determine if the purifier is designed for regeneration.

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### FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit [entegris.com](http://entegris.com) and select the Contact Us link to find the customer service center nearest you.

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