Cryogenic Liquid Cylinder Automatic ChangeOver Manifold

MODEL CBC

The Model CBC is designed to provide a continuous supply of vaporized gas from two or more cryogenic cylinders. It automatically switches gas supply from the primary cylinder bank to the reserve cylinder bank allowing the user to deplete gas in a cylinder without the concerns of gas outages and of wasting unused gas as a result of premature change-outs. When the system is in use, the built-in gas economizer circuit directs accumulated pressure from the reserve supply cylinder(s) to the process before the cylinder relief valve opens, venting useable product to the atmosphere. When the system is not operating, the gas economizer inactivates allowing both supplies (cylinders) to accumulate pressure and vent to atmosphere. Adequate ventilation should always be provided to safely remove or dispense the gaseous discharge from cryogenic cylinder reliefs.

All components including the delivery pressure regulator are enclosed and protected inside a tamper-resistant case. The delivery pressure is initially set by the operator by opening the front cover of the case and adjusting the stem of the delivery regulator clockwise until the desired pressure is read on the delivery pressure gauge.

A green light indicates the primary cylinder bank is functioning and the reserve cylinder bank is ready for service. A red light alerts the user that the unit has changed over and one or both banks are depleted. The user resets the primary bank by turning the lever.

Model IG-CBC Typical Layout

Benefits and Features
Integral visual alarm system is standard, remote A/V alarm optional
Gas Economizer prevents reserve cylinder pressure from being wastefully discharged to atmosphere during operation
All manifolds include brass constructed regulators and 72" stainless steel double-braided flexible pigtailes
Adaptable with manifold headers up to 3 cylinders per side
Check valve in pigtail CGA prevents discharge of gas when changing cylinders

Specifications
Electrical: 120 volts (AC), 1.25 amp
Manifold Outlet: 1/2" NPT Male
Relief Valve Outlet: 1/4" NPT Male
Manifold Inlet: CGA 580 Adapter
Flexible Hose Pigtailes (includes two): 6" stainless steel innercore with double overbraid (other lengths available – please specify)
Inlet CGA: Standard with check valve nipple
Inlet CGA Number: See table on next page
Cryogenic Liquid Cylinder
Automatic ChangeOver Manifold
MODEL CBC

Specifications (continued)

Use these tables to complete the model number and order the appropriate manifold.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Inlet Pressure maximum (psig)</th>
<th>Flow Rate maximum (SCFH)</th>
<th>Delivery Range for Internal Adjustable Regulator (psig)</th>
<th>SwitchOver Pressure (psig)</th>
<th>Inlet Pressure Gauges (psig)</th>
<th>Delivery Pressure Gauge (psig)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IG-CBC-1-(CGA)</td>
<td>235</td>
<td>750</td>
<td>20–100</td>
<td>140</td>
<td>0–400</td>
<td>0–200</td>
</tr>
<tr>
<td>IG-CBC-2-(CGA)</td>
<td>350</td>
<td>800</td>
<td>40–180</td>
<td>240</td>
<td>0–600</td>
<td>0–400</td>
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Pure Gas CGA Connections

<table>
<thead>
<tr>
<th>Gas Service</th>
<th>CGA Connection Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argon, Nitrogen</td>
<td>580</td>
</tr>
<tr>
<td>Carbon Dioxide</td>
<td>320</td>
</tr>
<tr>
<td>Nitrous Oxide</td>
<td>326</td>
</tr>
<tr>
<td>Oxygen</td>
<td>540</td>
</tr>
</tbody>
</table>

Where (CGA) is indicated above, insert appropriate Compressed Gas Association (CGA) connection number from the Pure Gas CGA chart to complete the model number. Example: IG-CBC-1-580. Please order by complete part number.

Optional Equipment
Model IG-CBI-ALARM: Remote Audio/Visual Alarm with 120 VAC transformer and 10’ interconnecting cable with mating connectors

Typical Cryogenic Container for Dispensing Liquid or Gas

![Diagram of Cryogenic Container](image-url)