Borosilicate Glass Viewports

Accu-Glass’ borosilicate glass viewports are ideal for general purpose use such as the direct observation of processes inside a vacuum chamber. The window material is a Corning 7056 type borosilicate glass — one of the most common materials used in the construction of vacuum viewports. Our viewports are designed and built for both high and ultrahigh vacuum applications and employ the latest in glass-to-metal bonding technology to hermetically seal borosilicate glass to nickel-iron alloy sleeves. Since glass is susceptible to scratching and inherently weak under point stresses, caution must always be exercised when handling these viewports. Proper handling of glass viewports and components will greatly minimize the chance of implosion hazard.

Features

- Corning 7056 borosilicate glass
- Nickel-Iron alloy low-expansion sleeve
- High temperature rated to 350°C
- UHV compatible construction
- Conflat® and ISO NW compatible mounts
- Stainless steel and NiFe construction
- Custom Solutions on Request

Specifications

Material:
- Flange: 304 Stainless Steel
- Glass Substrate: Corning 7056 Borosilicate Glass
- Seal: Fused Glass

Vacuum Range:
- UHV, Ultrahigh vacuum: 1x10⁻¹⁰ Torr
- HV, High vacuum: 1x10⁻⁸ Torr

Temperature Range:
- Glass-to-metal interface (seal): 350°C
- Flange Mount, Conflat®: 450°C
- Flange Mount, ISO: 150°C
- Thermal Gradient: 20°C / Minute Maximum

Transmission Range:
- 375–1900nm: >90%
- 60-40 scratch-dig finish on both faces
- Flatness (per square inch): 0.0002in

Notes

1. Leak tested to 5x10⁻¹⁰ Standard cc/sec of He.
2. Overall assembly ratings must be adjusted to that of its lowest rated component. For cryogenic service, the lowest recommended temperature is -80°C
3. Transmission curves are provided for reference only. Transmission for individual viewports may vary based on glass substrate thicknesses, surface finish and/or other conditions.
4. Unless specified otherwise, dimensional units in all sections of this catalog are expressed in inches.
### Borosilicate 7056 Glass, UHV and HV Viewports

**CF Flange** — Glass Viewports / 350°C / UHV to 1x10⁻¹⁰ Torr

<table>
<thead>
<tr>
<th>View Diameter</th>
<th>Range Type</th>
<th>Flange OD</th>
<th>Window Thickness</th>
<th>Spectral Range nm</th>
<th>Model Number</th>
<th>Part Number</th>
<th>Unit Price $</th>
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<td>133 CF</td>
<td>1.33</td>
<td>0.070</td>
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<td>VPG-0.6-133</td>
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1. Compatible with Conflat® flanges and hardware

**ISO KF/LF Flange** — Glass Viewports / 150°C / HV to 1x10⁻⁸ Torr

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<th>Part Number</th>
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1. Compatible with ISO 2861/1 specification flanges and hardware