

Glass Components & Chamber Accessories



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Glass Components and CHAMBER ACCESSORIES

Overview

Vacuum viewports, also known as windows or sight glasses, are commonly used to observe or illuminate processes inside of a vacuum chamber.

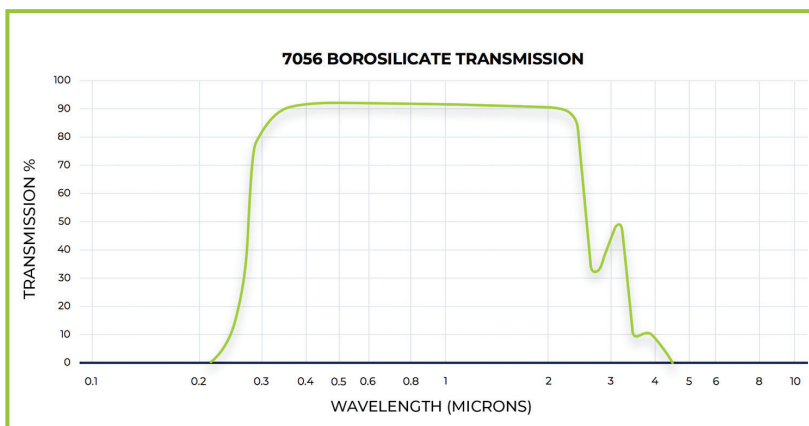
In optical applications, viewports are used to transmit electromagnetic radiation into or out of a vacuum chamber. Viewport selection is typically based on requirements for flange type, transmission range, thermal stability, durability, and other optical and physical properties of the window material.

ANCORP offers a wide selection of vacuum viewports with borosilicate glass, quartz, fused silica, sapphire, zinc selenide, magnesium fluoride, and calcium fluoride windows and designs rated for high and ultra-high vacuum (UHV) applications.

Weldable viewports provide a simple method of adding an observation window to coating systems and other applications that deposit materials onto the

inner surfaces of the chamber. The window material in these viewports is replaceable. The window material is captured between a pair of sealing fluoroelastomer rings, as the assembly is compressed together by a retaining flange. Note that because this is a fluoroelastomer sealed assembly the ultimate pressure rating for this viewport is limited to high vacuum.

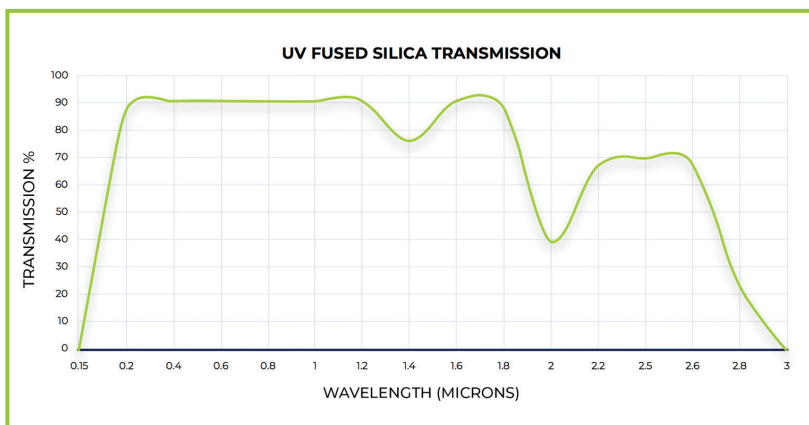
Add-a-doors are an excellent way to provide physical access to the interior of your vacuum system. Add-a-doors bolt onto an existing standard flange port on your chamber and can function as a viewing window as well as access point for your system. The body of an add-a-door is a CF flange generally capable of UHV pressures, but the door is sealed with a fluoroelastomer O-ring. Thus the ultimate vacuum pressure rating for this component is limited to high vacuum. **NOTE:** **ANCORP's** viewport add-a-doors have been designed to allow for the replacement of the windows.



7056 BOROSILICATE GLASS

ANCORP's 7056 borosilicate glass viewports are excellent general-purpose windows for observation within a vacuum chamber. Borosilicate glass has a low coefficient of thermal expansion and has high transmission in the visible range.

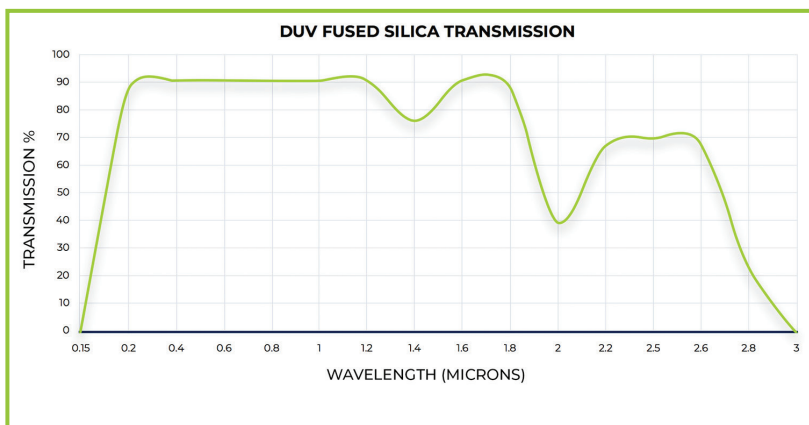
Borosilicate glass viewports are available with zero-length profile ConFlat (CF), ISO-QF (quick flange, KF, NW), and ISO-LF (large flange, ISO-K) flanges.



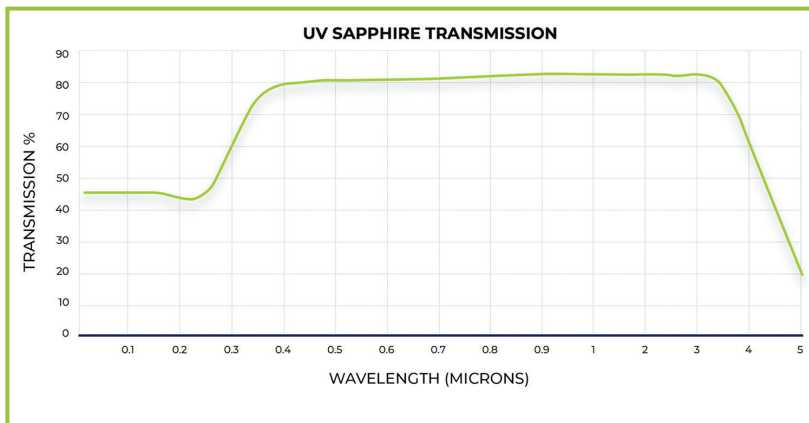
FUSED SILICA

ANCORP offers fused silica viewports in both ultraviolet (UV) grade and deep ultraviolet (DUV) laser-grade viewing window materials. Fused silica provides better transmission in the UV range compared to standard borosilicate glass. Fused silica is a type of ultra-pure non-crystalline synthetic quartz with great optical and thermal properties. It is colorless, resistant to abrasion and thermal shock, non-birefringent, has high working temperatures, and has a low coefficient of thermal expansion.

Zero-length UV grade fused silica viewports are available in ConFlat (CF), and ISO-QF (Quick Flange, KF, NW) flanges for high vacuum and ultra-high vacuum (UHV) applications.



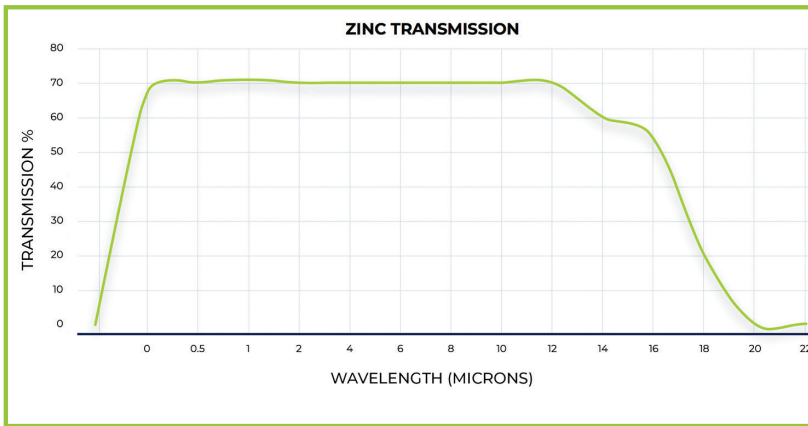
Zero-length DUV grade fused silica viewports are available in a variety of ConFlat (CF) flange sizes for ultra-high vacuum (UHV) performance. Single AR and broadband AR anti-reflective coatings are available for minimized reflectance.



SAPPHIRE

Sapphire has a broad transmission range from UV to near-infrared (NIR) and is excellent in harsh environments and high temperatures. Sapphire is durable, scratch resistant, birefringent, and has a low coefficient of thermal expansion.

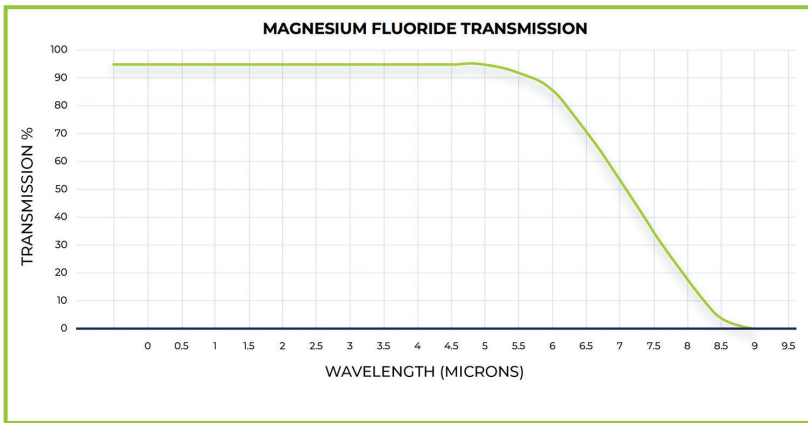
ANCORP offers zero-length UV grade sapphire viewports in ConFlat (CF) and ISO-QF (Quick flange, KF, NW) flange sizes for use in high and ultra-high vacuum (UHV) applications.



ZINC SELENIDE (ZnSe)

Zinc Selenide (ZnSe) viewports are ideal for transmission in the near infrared (NIR) to IR range. Zinc selenide viewports are commonly used in IR applications such as thermal imaging and FLIR cameras. Zinc selenide has low absorption and high resistance to thermal shock.

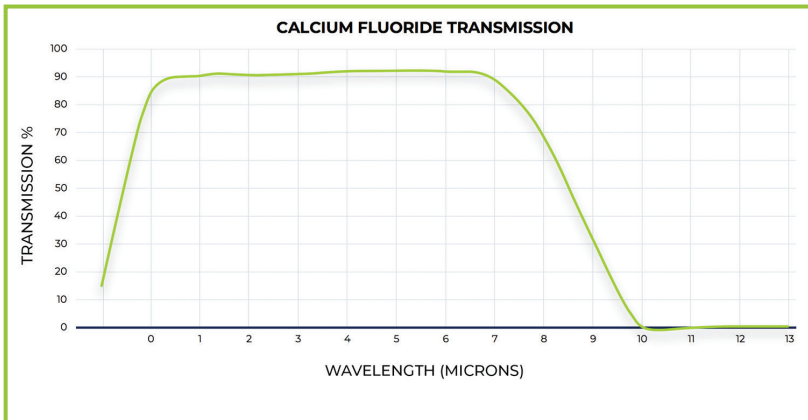
ANCORP offers both anti-reflective (AR) coated and uncoated zero-length zinc selenide viewports with zero-length ConFlat (CF) flanges for use in ultra-high vacuum (UHV) applications.



MAGNESIUM FLUORIDE (MgF2)

Magnesium Fluoride (MgF₂) viewports offer an extended range of transmission from the vacuum ultraviolet (VUV) region into the mid-IR. Magnesium fluoride is birefringent, very durable, and resistant to physical stress and thermal shock.

ANCORP offers zero-length magnesium fluoride viewports with ConFlat (CF) flanges for use in ultra-high vacuum (UHV) environments.

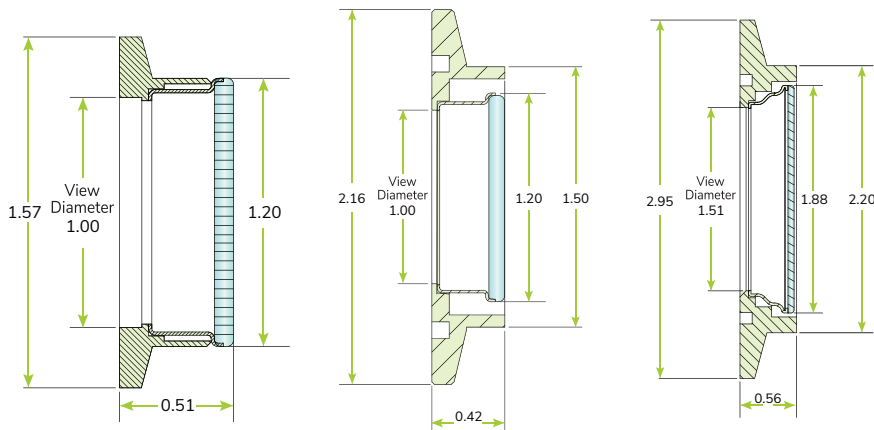


CALCIUM FLUORIDE (CaF2)

Calcium Fluoride (CaF₂) viewports provide extended transmission from the vacuum ultraviolet (VUV) into the infrared range. Calcium fluoride features low absorption, a high laser damage threshold, and good moisture and chemical resistance. Calcium fluoride is birefringent and has a low index of refraction.

ANCORP offers zero-length calcium fluoride viewports with ConFlat (CF) flanges for use in ultra-high vacuum (UHV) applications.

ISO-QF Zero Length Viewports



QF25
Borosilicate Glass Viewport

QF40
Borosilicate Glass Viewport

QF50
Borosilicate Glass Viewport



Features:

- Vacuum rating of 1×10^{-8} torr
- Temperature maximum: 200°C
- ISO-QF (KF, NW) flange
- Body is manufactured from 304 stainless steel
- Viewing window is manufactured from 7056 borosilicate glass
- Transition material is Kovar
- Avoid thermal changes in excess of 10°C/min
- Do not expose to pressure above 1 atmosphere

PART #	REFERENCE ID	VIEW DIAMETER
9110002	QF25-ZLVP-1.000	1.0
9110000	QF40-ZLVP-1.000	1.0
9110001	QF50-ZLVP-1.500	1.5

Zero Length Viewports

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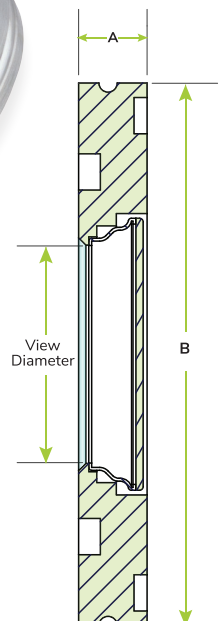
ISO-LF Zero Length Viewports

Features:

- Vacuum rating of 1×10^{-8} torr
- Temperature maximum of 150°C
- ISO-LF (ISO-K) flange
- Body is manufactured from 304 stainless steel
- Viewing window material is 7056 borosilicate glass
- Transition material is Kovar
- Avoid thermal changes in excess of 10°C/minute
- Do not expose to pressure above 1 atmosphere

Options: Call for price and availability

- Larger sizes
- Alternative viewing window materials: Quartz, Sapphire

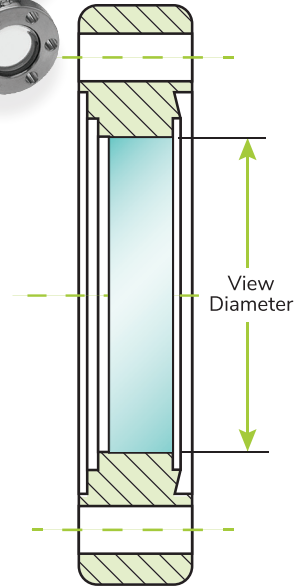


PART #	REFERENCE ID	A	B	VIEW DIAMETER
9110005	LF63-ZLVP-1.500	0.472	3.74	1.50
9110006	LF80-ZLVP-1.500	0.472	4.33	1.50
9110007	LF100-ZLVP-2.67	0.472	5.12	2.67
9110008	LF160-ZLVP-4.00	0.472	7.09	3.98
9110009	LF200-ZLVP-5.52	0.472	9.45	5.52
9110010	LF250-ZVP	0.472	10.00	6.00

CF Zero Length Viewports

Features:

- Vacuum rating of 1×10^{-10} torr
- Temperature maximum of 400°C
- ConFlat flange
- Flange material is 304 stainless steel
- Viewing window is 7056 borosilicate glass
- Transition material is Kovar
- Avoid thermal changes in excess of 10°C/minute
- Do not expose to pressure above 1 atmosphere



PART #	REFERENCE ID	FLANGE SIZE	VIEW DIAMETER
9110025	CF133-ZLVP-0.625	1.33	0.63
9110026	CF212-ZLVP-0.625	2.12	0.63
9110027	CF275-ZLVP-1.500	2.75	1.50
9110028	CF338-ZLVP-1.500	3.38	1.50
9110029	CF450-ZLVP-2.672	4.50	2.67
9110030	CF462-ZLVP-2.672	4.62	2.67
9110031	CF600-ZLVP-3.980	6.00	3.98
9110032	CF675-ZLVP-3.980	6.75	3.98
9110033	CF800-ZLVP-5.520	8.00	5.52
9110034	CF1000-ZLVP-5.520	10.00	5.52

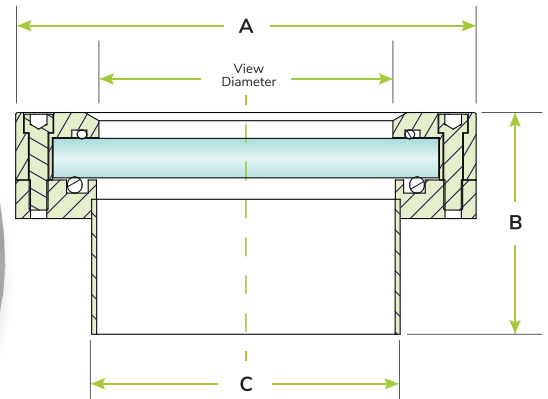
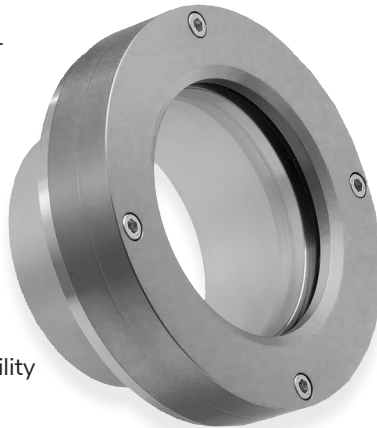
Weldable Viewports

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Weldable Glass and Quartz Viewports

Features:

- High Vacuum rating of 1×10^{-8} torr
- Temperature maximum of 150°C
- Body is manufactured from 304 stainless steel
- Viewing window is borosilicate glass (Borofloat® 33)
- Viton seal
- Aluminum retaining flange
- Avoid thermal changes in excess of 10°C/minute
- Do not expose to pressure above 1 atmosphere
- Options: Call for price and availability
 - Larger sizes
 - Custom lengths



PART #	REFERENCE ID	VIEWING MATERIAL	A (in)	B (in)	C (in)	VIEW DIAMETER (in)
9118001	400-WVP-3.812	7740 Glass	5.97	2.88	4.00	3.81
9118002	600-WVP-6.00	7740 Glass	7.97	2.88	6.00	6.00
9118003	250-WVP-2.50	7740 Glass	4.47	2.88	2.50	2.50
9118005	250-WVP-2.50-Q	Quartz	4.47	2.88	2.50	2.50
9118010	400-WVP-3.812-Q	Quartz	5.97	2.88	4.00	3.81
9118015	600-WVP-6.00-Q	Quartz	7.97	2.88	6.00	6.00

Add-A-Door Viewport

Materials:

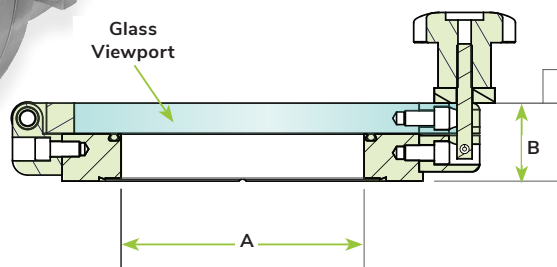
- Body: 304 stainless steel
- Door: 304 stainless steel
- Viewing window: 7056 borosilicate glass
- Seals: Viton®
- Fastening knob: Polypropylene plastic (PP)
- Temperature: 150°C maximum
- Vacuum rating: 1×10^{-8} Torr, High Vacuum

Product Notes:

- Avoid Thermal changes in excess of 10°C/minute
- Do not expose to pressure above 1 atmosphere

Options: Call for price and availability

- Larger sizes
- Viewing window: Quartz



PART #	REFERENCE ID	FLANGE	WINDOW MATERIAL	A (in)	B (in)	VIEWING AREA (in)
9110222	CF600-ADVP-3.8	CF600	7056 Glass	4.02	2.16	3.812
9110223	CF450-ADVP-2.5	CF450	7056 Glass	2.50	1.68	2.50
9110224	CF800-ADVP-6.0	CF800	7056 Glass	6.00	2.00	6.00
9110225	CF1000-ADVP-6.0	CF1000	7056 Glass	7.88	2.10	6.00

Add-A-Door

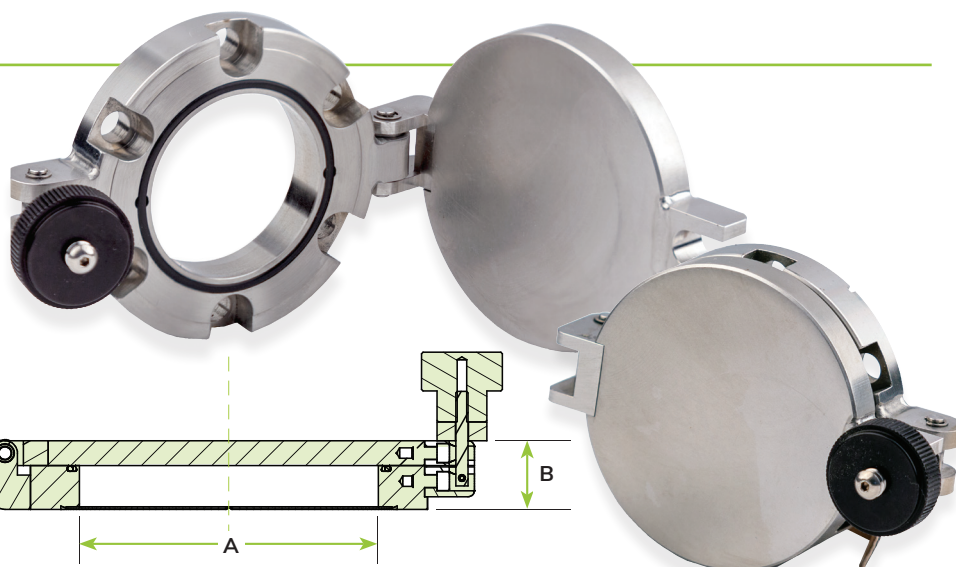
Add-A-Door

Materials:

- Body: 304 stainless steel
- Door: 304 stainless steel
- Seals: Viton®
- Fastening knob: Polypropylene plastic (PP)
- Temperature: 150°C maximum
- Vacuum rating: 1×10^{-8} Torr, High Vacuum

Product Notes:

- Avoid Thermal changes in excess of 10°C/minute
- Do not expose to pressure above 1 atmosphere
- Larger sizes available



PART #	REFERENCE ID	FLANGE	A (in)	B (in)
9110101	CF275-AD	CF275	1.50	0.94
9110102	CF450-AD	CF450	2.50	1.18
9110103	CF600-AD	CF600	4.02	1.28
9110104	CF800-AD	CF800	6.00	1.38
9110105	CF1000-AD	CF1000	7.88	1.47

ConFlat (CF) UV Grade Fused Silica Viewports

Description:

- UV Grade Fused Silica viewport
- Zero-length profile
- ConFlat flange
- Bakeable to 200°C
- Non-magnetic materials
- Excellent transmission for UV to 250nm
- UHV compatible

Options: Call for price & availability

- Custom window sizes
- Alternative Materials: Titanium, 316LN

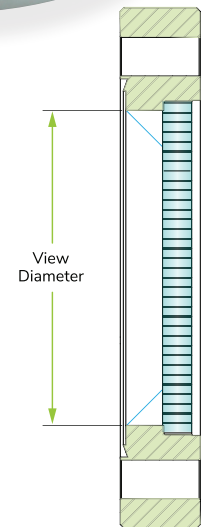


Specifications:

- Flange material:
 - 316L stainless steel (1.33")
 - 304 stainless steel (2.75" to 8.00")
- Window material: Corning HPFS 7980 Fused Silica or equivalent
- TWD < 10 λ @ 632nm (peak to valley)

- Parallelism < 30 arc minutes
- Surface finish: 40/20 scratch-dig
- Thermal range: -100°C to 200°C
- Bake-out ramp rate: 20°C per minute
- Homogeneity grade: F
- Inclusion class: 2
- Leak rate < 1 X 10⁻⁹ atm-cc/sec He

PART #	REFERENCE ID	FLANGE SIZE	VIEW DIAMETER
9118029	CF133-ZLVP-Q-UV-0.63	1.33	0.63
9118030	CF275-ZLVP-Q-UV-1.40	2.75	1.40
9118033	CF338-ZLVP-Q-UV-1.40	3.37	1.40
9118032	CF450-ZLVP-Q-UV-2.69	4.50	2.69
9118031	CF600-ZLVP-Q-UV-3.88	6.00	3.88
9110034	CF800-ZLVP-Q-UV-5.38	8.00	5.38

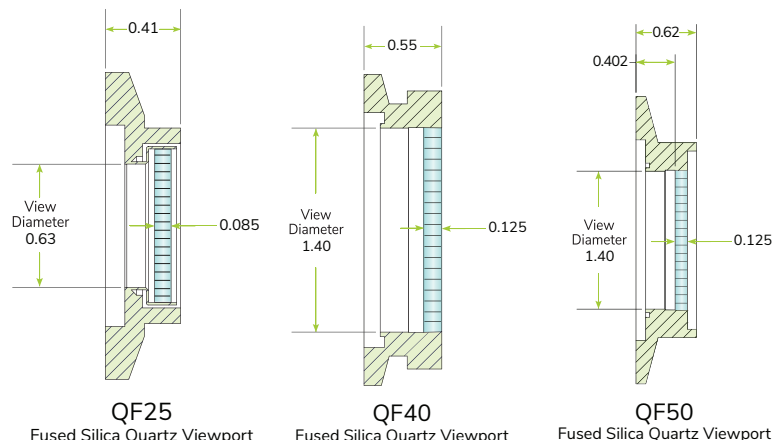


Fused Silica (Quartz) Viewports

ISO-QF (KF) UV Grade Fused Silica Viewports

Features:

- Vacuum rating of 1x10⁻⁹ torr
- Thermal range: -100°C to 200°C
- ISO-QF (KF, NW) flange
- Body is manufactured from 304 stainless steel
- Viewing window is manufactured from UV grade fused silica
- Transition material is Kovar
- Avoid thermal changes in excess of 10°C/minute
- Do not expose to pressure above 1 atmosphere



Specifications:

- TWD < 10 λ @ 632nm (peak to valley)
- Parallelism < 30 arc minutes
- Surface finish: 40/20 scratch-dig
- Homogeneity grade: F
- Inclusion class: 2

Options: Call for price & availability

- Custom window sizes
- Alternative Materials: Titanium, 316LN

PART #	REFERENCE ID	FLANGE SIZE	VIEW DIAMETER
9110012	QF25-ZLVP-Q-UV-0.63	1.57	0.63
9110013	QF40-ZLVP-Q-UV-1.40	2.16	1.40
9110014	QF50-ZLVP-Q-UV-1.40	2.95	1.40



ConFlat (CF) DUV Grade Fused Silica Viewport

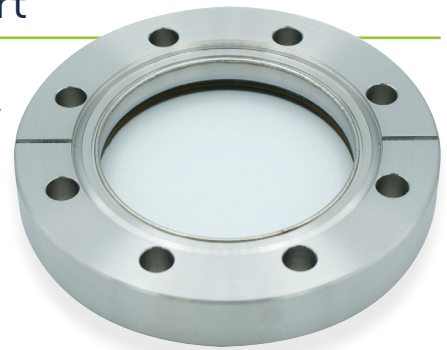
Description:

- DUV grade (laser) fused silica window
- Zero-length profile
- ConFlat flange
- Laser grade fused silica window
- Bakeable to 200°C
- Non-magnetic materials
- Excellent transmission for UV to 248nm
- UHV compatible

Options:

Call for price & availability

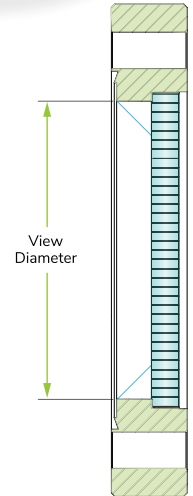
- Custom window sizes
- Alternative Materials: Titanium, 316LN
- IR Grade (Low OH)
- EUV Grade (Excimer)



Specifications:

- Flange material:
 - 316L stainless steel (1.33")
 - 304 stainless steel (2.75" to 6.00")
- Window material: Corning HPFS 7980 fused silica or equivalent
- TWD < $\lambda/4$ @ 632nm (peak to valley)
- Parallelism:
 - < 30 arc seconds (1.33")
 - < 10 arc seconds (2.75" to 6.00")
- Surface finish: 20/10 scratch-dig
- Thermal range: -100°C to 200°C
- Bake-out ramp rate: 20°C per minute
- Homogeneity grade: A
- Inclusion class: 0
- Leak rate < 1×10^{-9} atm-cc/sec He

PART #	REFERENCE ID	FLANGE SIZE	VIEW DIAMETER
9118040	CF133-ZLVP-Q-DUV-0.63	1.33	0.63
9118041	CF275-ZLVP-Q-DUV-1.40	2.75	1.40
9118042	CF450-ZLVP-Q-DUV-2.69	4.50	2.69
9118043	CF600-ZLVP-Q-DUV-3.88	6.00	3.88



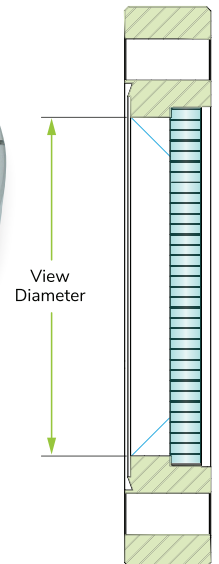
ConFlat (CF) DUV Grade Fused Silica Viewport, Single AR Coating

Description:

- DUV grade (laser) fused silica window
- Single AR coating
- Anti-reflective coating for minimized reflectance
- Bakeable to 200°C
- Non-magnetic materials
- Zero-length profile
- UHV compatible

Specifications:

- Flange Material: 304 stainless steel
- Window Material: Corning HPFS 7980 Fused Silica or equivalent
- TWD < $\lambda/4$ @ 632nm (peak to valley)
- Parallelism < 10 arc seconds
- Surface Finish: 20/10 scratch-dig
- Thermal Range: -100°C to 200°C
- Bake-Out Ramp Rate: 20°C per minute
- Homogeneity Grade: A
- Inclusion Class: 0
- Leak rate < 1×10^{-9} atm-cc/sec He
- AR coated both sides:
 - 780nm, R < 0.25% per surface
 - 1064nm, R < 0.25% per surface
- Laser damage threshold: 10 J/cm² for 10 ns pulse



PART #	REFERENCE ID	FLANGE SIZE	VIEW DIAMETER
9118050	CF275-ZLVP-Q-DUV-SAR-1064-1.40	2.75	1.40
9118051	CF450-ZLVP-Q-DUV-SAR-1064-2.70	4.50	2.70
9118052	CF275-ZLVP-Q-DUV-SAR-780-1.40	2.75	1.40
9118053	CF450-ZLVP-Q-DUV-SAR-780-2.70	4.50	2.70

Options:

Call for price & availability

- Custom sizes
- Materials: Titanium, 316LN
- EUV Grade

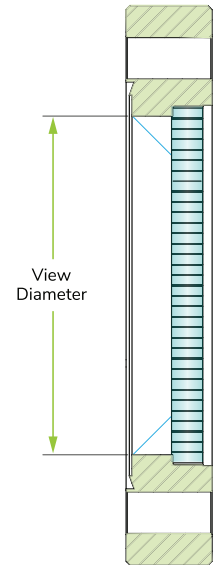
ConFlat (CF) DUV Grade Fused Silica Viewport, BBAR Coating

Description:

- DUV grade (laser) fused silica window
- Broadband anti-reflective coating for optimum performance
- Bakeable to 200°C
- Non-magnetic materials
- Zero-length profile
- UHV compatible

Specifications:

- Flange Material: 304 stainless steel
- Window Material: Corning HPFS 7980 Fused Silica or equivalent
- TWD < $\lambda/4$ @ 632nm (peak to valley)
- Parallelism < 10 arc seconds
- Surface Finish: 20/10 scratch-dig
- Thermal Range: -100°C to 200°C
- Bake-Out Ramp Rate: 20°C per minute
- Homogeneity Grade: A
- Inclusion Class: 0
- BBAR coated both sides:
 - 425-760nm, R avg. < 0.5% per surface
 - 550-1100nm, R avg. < 0.5% per surface
- Laser damage threshold: 10 J/cm² for 10 ns pulse
- Leak rate < 1 X 10⁻⁹ atm-cc/sec He



Options: Call for price & availability

- Custom window sizes
- Alternative Materials: Titanium, 316LN

PART #	REFERENCE ID	FLANGE SIZE	VIEW DIAMETER
9118054	CF275-ZLVP-Q-DUV-BBAR-425-760-1.40	2.75	1.40
9118055	CF450-ZLVP-Q-DUV-BBAR-425-760-2.69	4.50	2.69
9118056	CF275-ZLVP-Q-DUV-BBAR-550-1100-1.40	2.75	1.40
9118057	CF450-ZLVP-Q-DUV-BBAR-550-1100-2.69	4.50	2.69

Fused Silica (Quartz) Viewports

Fused Silica Viewport Available Options - Call for Price and Availability

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- All Titanium Viewports
- Weld Adapters
- Re-entrant Design
- ISO Flanges
- AR Coating for 1550nm
- AR Coating for 808nm
- Dual AR Coatings
- EUV Grade (Excimer) Viewports
- IR Grade (Low OH) Viewports
- Geochronological Viewports
- Custom viewports and coatings



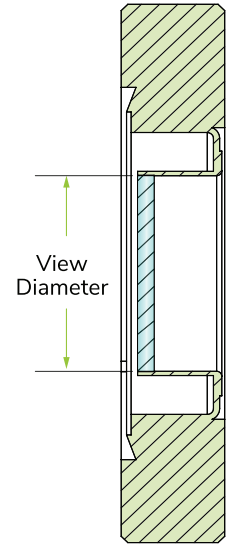
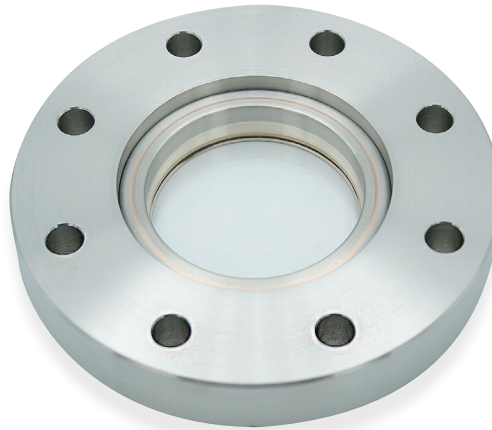
ConFlat (CF) UV Grade Sapphire Viewport

Description:

- Single crystal UV grade sapphire window
- ConFlat (CF) Flange
- Bakeable to 450°C
- Excellent Transmission from 250nm to 5 microns
- UHV Compatible

Options: Call for price & availability

- Custom window sizes
- Alternative Materials: Titanium, 316LN



PART #	REFERENCE ID	FLANGE SIZE	VIEW DIAMETER
9118128	CF275-ZLVP-S-UV-0.94	2.75	0.94
9118127	338-ZVP-S-0.943	3.38	0.94
9118130	CF450-ZLVP-S-UV-1.94	4.50	1.94
9118132	CF800-ZLVP-S-2.95	8.00	1.94

ISO-QF (KF) UV Grade Sapphire Viewport

Description:

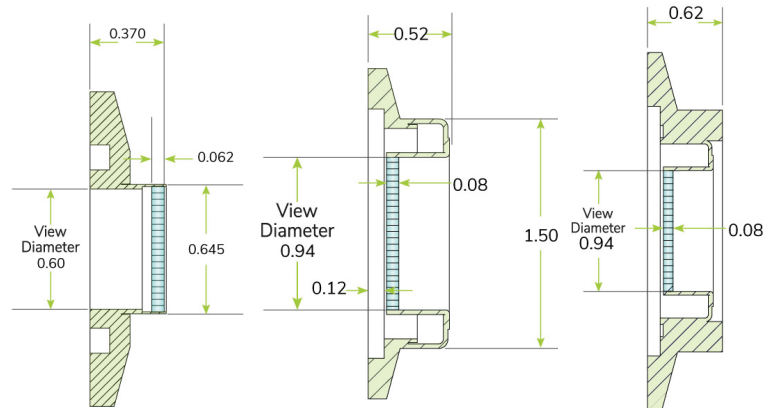
- ISO-QF (KF, NW) flange
- Single crystal UV grade sapphire window
- Bakeable to 450°C
- Excellent transmission from 250nm to 5 microns
- UHV compatible

Specifications:

- Window material: UV grade sapphire
- TWD < 8 λ @ 632nm (peak to valley)
- Parallelism < 3 arc minutes
- Surface finish: 50/20 scratch-dig
- Thermal range: -100°C to 450°C
- Leak rate < 1 X 10⁻⁹ atm-cc/sec He

Options: Call for price & availability

- Custom window sizes
- Alternative Materials: Titanium, 316LN

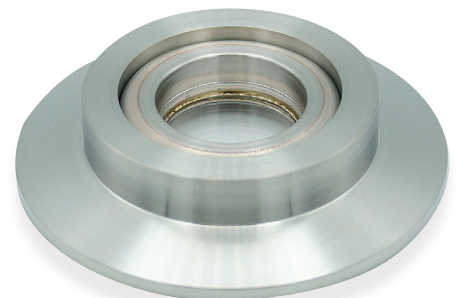


QF25
Sapphire Viewport

QF40
Sapphire Viewport

QF50
Sapphire Viewport

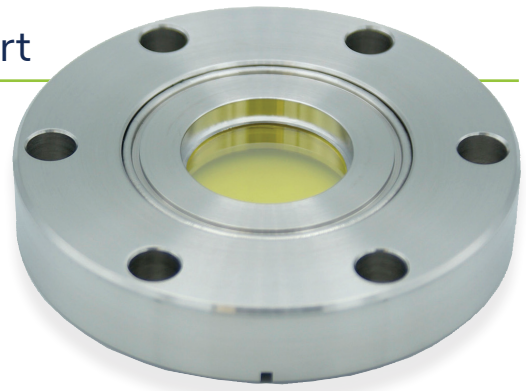
PART #	REFERENCE ID	FLANGE SIZE	VIEW DIAMETER
9110059	QF25-ZLVP-S-UV-0.60	1.57	0.60
9110060	QF40-ZLVP-S-UV-0.94	2.16	0.94
9110061	QF50-ZLVP-S-UV-0.94	2.95	0.94



ConFlat (CF) Zinc Selenide (ZnSe) Viewport

Description:

- Zinc selenide (ZnSe) viewport
- UHV rated vacuum optics
- 0.90" view diameter
- 2.75" ConFlat flange
- Bakeable to 200°C
- Vacuum-optics with zinc selenide window
- Stainless steel housing and flange
- UHV compatible



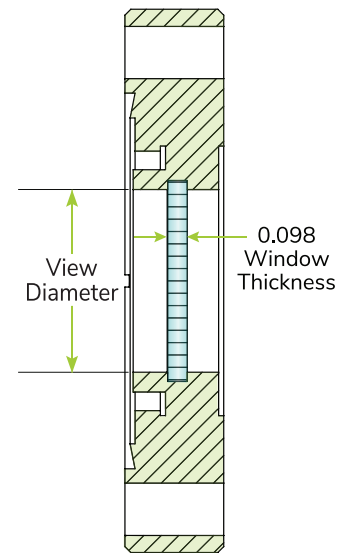
PART #	REFERENCE ID	FLANGE SIZE	VIEW DIAMETER
9118060	CF275-ZLVP-ZNSE-0.90	2.75	0.90

ConFlat (CF) Zinc Selenide (ZnSe) Viewport, Broadband AR Coating

Description:

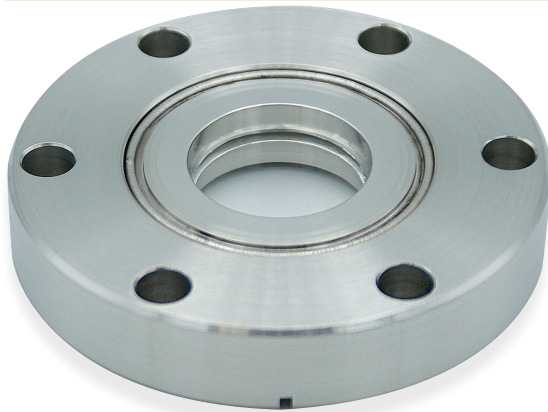
- Zinc selenide (ZnSe) viewport
- Broadband AR coating @ 8-12 microns
- UHV rated vacuum optics
- 0.90" view diameter
- 2.75" ConFlat flange
- Vacuum-optics w/ zinc selenide window
- Anti-reflective coating for optimum performance
- Bakeable to 200°C
- UHV compatible
- Stainless steel housing and flange

PART #	REFERENCE ID	FLANGE SIZE	VIEW DIAMETER
9118061	CF275-ZLVP-ZNSE-BBAR-0.90	2.75	0.90



ZnSe and MgF2 Viewports

ConFlat (CF) Magnesium Fluoride (MgF2) Viewport



Description:

- Magnesium fluoride (MgF2) viewport
- UHV rated vacuum optics
- 2.75" ConFlat flange
- 0.90" view diameter

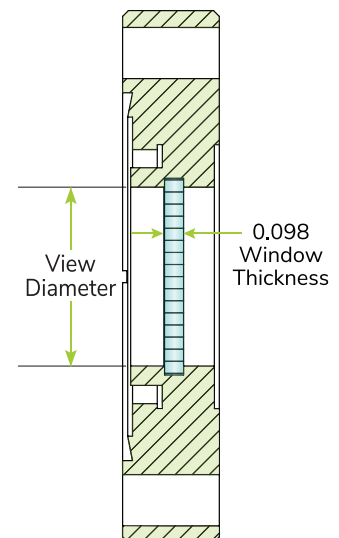
Specifications:

- Flange material: 304 stainless steel
- Window material: Single crystal, 0° Magnesium Fluoride
- TWD < $\lambda/4$ @ 632nm (peak to valley)
- Parallelism: < 3 arc minutes
- Surface finish: 20/10 scratch-dig
- Thermal range: -100°C to 200°C
- Bake-out ramp rate: 20°C per minute
- Leak rate < 1×10^{-9} atm-cc/sec He

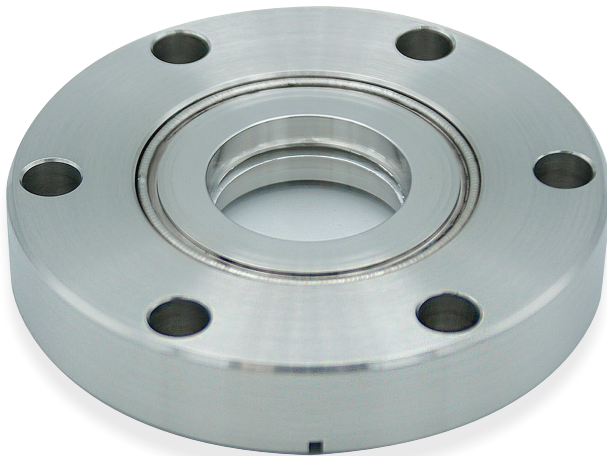
Options: Call for price & availability

- Custom window sizes
- Alternative Materials: Titanium, 316LN
- Custom Coatings
- QF (KF) Flanges

PART #	REFERENCE ID	FLANGE SIZE	VIEW DIAMETER
9118062	CF275-ZLVP-MGF2-0.90	2.75	0.90



ConFlat (CF) Calcium Fluoride CaF2 UHV Viewport



Specifications:

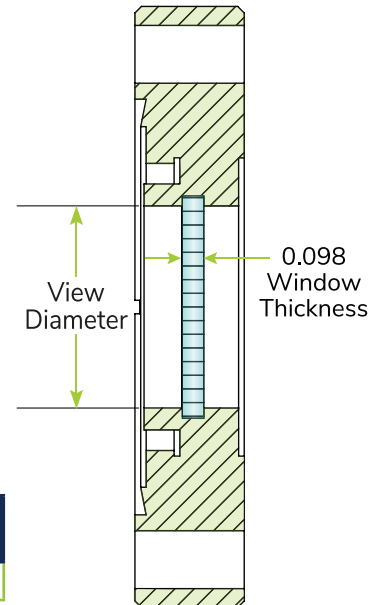
- Flange material: 304 stainless steel
- Window material: Single crystal calcium fluoride
- TWD < $\lambda/4$ @ 632nm (peak to valley)
- Parallelism: < 3 arc minutes
- Surface finish: 20/10 scratch-dig
- Thermal range: -100°C to 200°C
- Bake-out ramp rate: 20°C per minute
- Leak rate < 1×10^{-9} atm-cc/sec He

Description:

- Calcium Fluoride (CaF2) Viewport
- UHV rated vacuum optics,
- 0.90" view diameter
- 2.75" ConFlat flange
- Vacuum-optics with Calcium Fluoride window
- Bakeable to 200°C
- Stainless steel housing and flange
- UHV compatible

Options: Call for price & availability

- Custom window sizes
- Alternative Materials: Titanium, 316LN
- Custom Coatings
- QF (KF) Flanges



PART #	REFERENCE ID	FLANGE SIZE	VIEW DIAMETER
9118063	CF275-ZLVP-CAF2-0.90	2.75	0.90

Replacement Parts

PART #	REFERENCE ID	DESCRIPTION
0501085	250-PVP	Replacement Glass Disk
0501185	250-PVP-Q	Replacement Quartz Disk
9112000	250-WVP-RSK	Replacement fluoroelastomer seals (2) and bolt kit
0501090	400-PVP	Replacement Glass Disk
0501190	400-PVP-Q	Replacement Quartz Disk
9112001	400-WVP-RSK	Replacement fluoroelastomer seals (2) and bolt kit
0501095	600-PVP	Replacement Glass Disk
0501195	600-PVP-Q	Replacement Quartz Disk
9112002	600-WVP-RSK	Replacement fluoroelastomer seals (2) and bolt kit





Illum·A·View™

**THE HANDS-FREE SOLUTION
TO YOUR DARK CHAMBER PROBLEM**



Illum-A-View Chamber Light



Researchers have been working in the dark—straining to see inside a dimly lit vacuum chamber. You’ve tried hand-held flashlights or integrated “goose-neck” lamps and have been blinded by the glare on the glass or have had your view blocked by the light source itself.

ANCORP developed the Illum-A-View—a lightweight ring fitted with bright natural white LEDs that shine directly into your chamber with minimal viewing obstruction—as a solution. Illum-A-View easily fits over existing viewports, allowing you to shine a light on your research.

- Slim design machined from lightweight aluminum
- Bright natural white LEDs focus light into your chamber, always stays cool to the touch, and have a lifespan of over 30,000 hours.
- Available in standard viewport sizes: CF275 · CF450 · CF600 · CF800 · CF1000
- Mounts securely onto viewport at any angle using 3 small set screws
- Plugs directly into standard AC outlet

PART #	REFERENCE ID	DESCRIPTION	A (in)	DIAM. B (in)	C (in)	WIDTH D (in)
9120020	LVP-CF275-L120-NW-B	CF275 Illum-A-View Blue 120V	7.49	3.10	0.52	1.38
9120040	LVP-CF450-L120-NW-B	CF450 Illum-A-View Blue 120V	8.00	4.84	0.73	1.38
9120060	LVP-CF600-L120-NW-B	CF600 Illum-A-View Blue 120V	8.63	6.34	0.80	1.38
9120080	LVP-CF800-L120-NW-B	CF800 Illum-A-View Blue 120V	9.38	8.38	1.00	1.38
9120100	LVP-CF1000-L120-NW-B	CF1000 Illum-A-View Blue 120V	9.38	10.38	2.00	1.38

To place an order or find out more information about Illum-A-View, contact one of our applications engineers at 1-800-352-6431 or visit us online at www.ancorp.com.

Up-to-Air Valves

Installation of an **ANCORP** up-to-air valve allows you to vent your chamber to atmosphere or backfill your chamber with the gas of your choice. Up-to-air valves are available in two mounting options: center or side mounting.

Center mounted valves are welded to the flange, side mounted valves are sealed to the side port of a double sided CF flange with an NPT fitting and allow in-line installation of the valve in your system.



Features:

- Valve type: 1/4 inch, bellows sealed
- Actuation: manual
- Temperature range:
CF flange mount: 60°C up to 315°C
ISO-QF flange mount: -20°C up to 150°C
- Helium leak rated less than 4×10^{-9} Std.cc/s

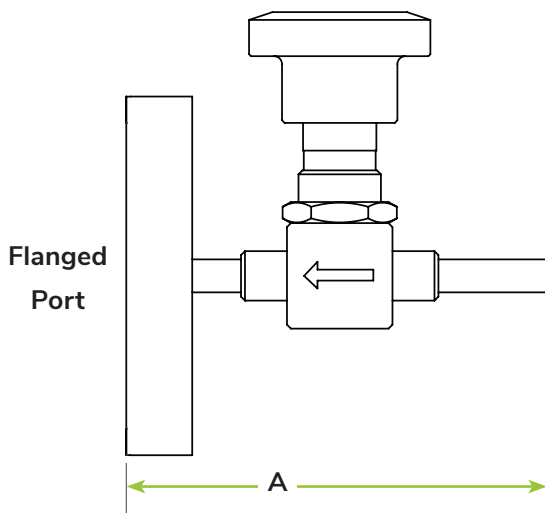
Product Notes:

- Vent or back fill your vacuum chamber

Options: call for price and availability

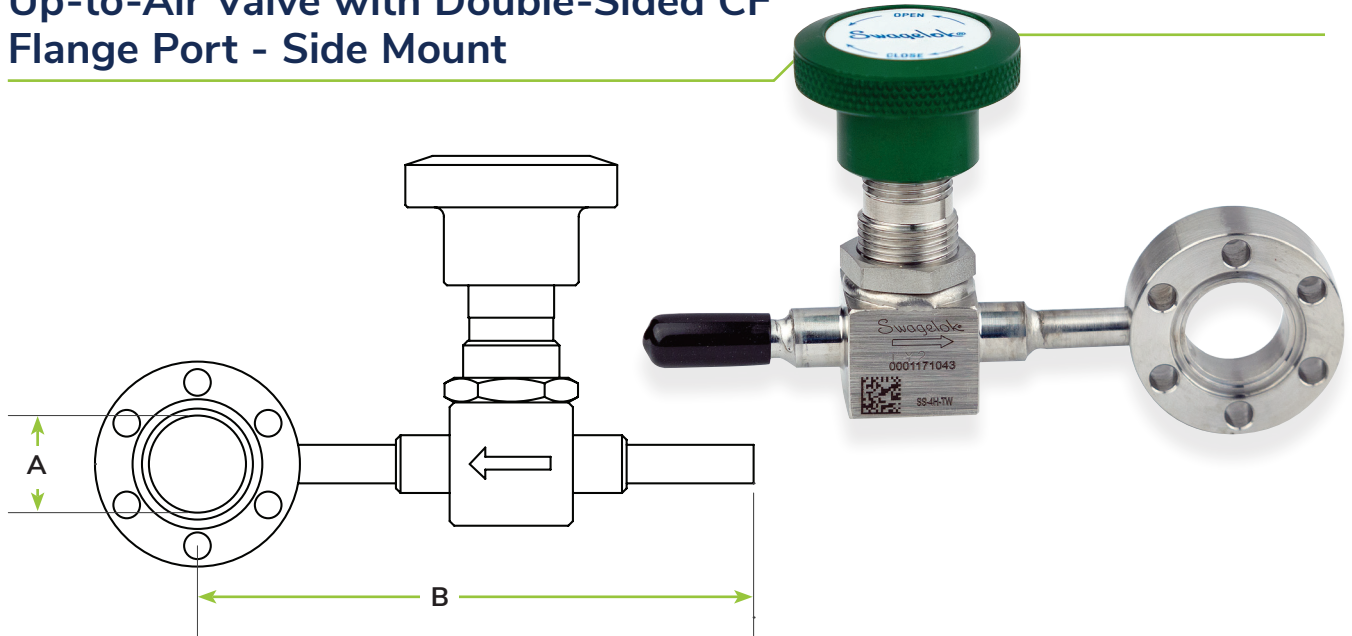
- Optional connections for valve port (VCR®, Swagelok®) standard is 1/4 inch tube end.
- Valves with side mounting to CF flanges can also be provided with a double port CF flange for the addition of a vacuum gauge.

Up-to-Air Valve with CF Flange Port Center Mount



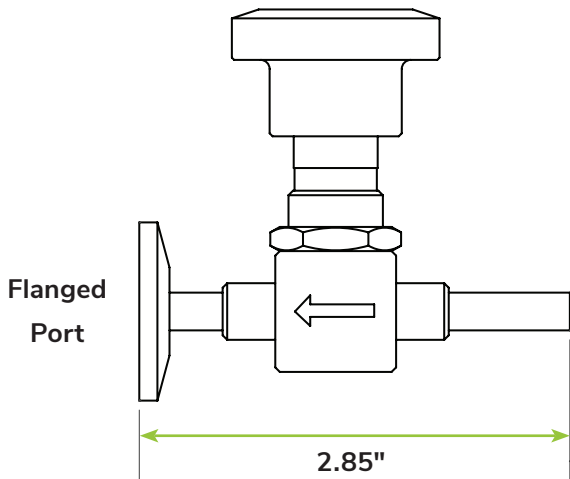
PART #	REFERENCE ID	FLANGED PORT	A (in)	DESCRIPTION
9100105	CF133-025-UTAV-3.00	CF133	3.00	Up-to-Air Valve with a CF133 Flange port
9100106	CF275-025-UTAV-3.19	CF275	3.19	Up-to-Air Valve with a CF275 Flange port

Up-to-Air Valve with Double-Sided CF Flange Port - Side Mount



PART #	REFERENCE ID	FLANGED PORT	A (in)	B (in)	DESCRIPTION
9100107	CF133XCF133-075-UTAV-3.60	CF133D	0.625	3.60	Up-to-Air Valve with a CF133 Flange
9100108	CF275xCF275-150-UTAV-4.00	CF275D	1.50	4.00	Up-to-Air Valve with a CF275 Flange

Up-to-Air Valve with ISO-QF Flange Port Center Mount



PART #	REFERENCE ID	FLANGED PORT	DESCRIPTION
9100101	QF16-025-UTAV-2.85	QF16	Up-to-Air Valve with a QF16 Flange port
9100102	QF25-025-UTAV-2.85	QF25	Up-to-Air Valve with a QF25 Flange port
9100103	QF40-025-UTAV-2.85	QF40	Up-to-Air Valve with a QF40 Flange port
9100104	QF50-025-UTAV-2.85	QF50	Up-to-Air Valve with a QF50 Flange port

Up-to-Air Valves



Vacuum Grease

Features:

- Temperature Range: -40°C up to 260°C
- Size: 5.3 oz tube

Product Notes:

- Assist in elastomer gasket sealing
- Low vapor pressure
- Inert



PART #	REFERENCE ID	DESCRIPTION
0600001	GREASE-DC	Dow Corning® Vacuum Grease, 5.3 oz.



Anti-Seize

PART #	REFERENCE ID	DESCRIPTION
0605208	ASTL	Bolt thread lubricant eliminates galling of bolt and nut or tapped bolt hole
0605113	12-POINT WRENCH	Fits CF 12-point bolts

Flange Caps

PART #	REFERENCE ID	DESCRIPTION
0600501	PC-QF16	1 Plastic cap for ISO-QF16 flange
0600502	PC-QF25	1 Plastic cap for ISO-QF25 flange
0600503	PC-QF40	1 Plastic cap for ISO-QF40 flange
0600504	PC-QF50	1 Plastic cap for ISO-QF50 flange
0600505	PC-LF63	1 Plastic cap for ISO-LF63 flange
0600506	PC-LF80	1 Plastic cap for ISO-LF80 flange
0600507	PC-LF100	1 Plastic cap for ISO-LF100 flange
0600515	PC-CF133	1 Plastic cap for CF133 flange
0600516	PC-CF212	1 Plastic cap for CF212 flange
0600517	PC-CF275	1 Plastic cap for CF275 flange
0600518	PC-CF338	1 Plastic cap for CF338 flange
0600519	PC-CF450	1 Plastic cap for CF450 flange
0600520	PC-CF462	1 Plastic cap for CF462 flange
0600521	PC-CF600	1 Plastic cap for CF600 flange
0600522	PC-CF800	1 Plastic cap for CF800 flange
0600523	PC-CF1000	1 Plastic cap for CF1000 flange
0600524	PC-CF1200	1 Plastic cap for CF1200 flange
0600525	PC-CF1325	1 Plastic cap for CF1325 flange

