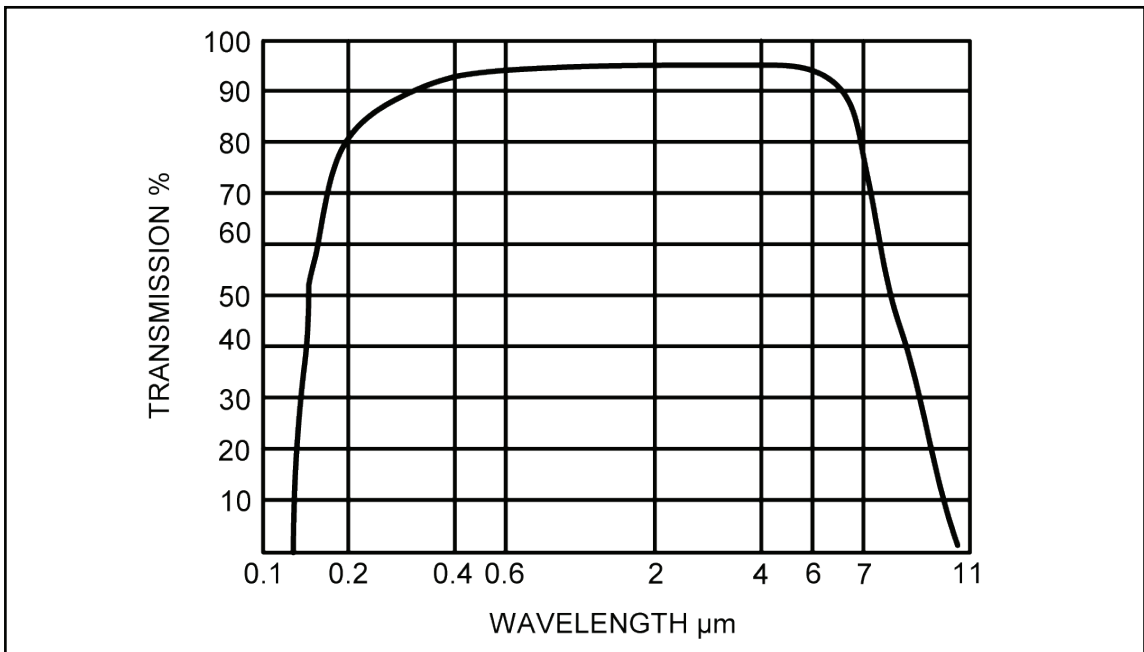


Specification	
Seal Type	Bond
Maximum Temperature	120°C
Minimum Temperature	minus 20°C
Maximum Rate of Temperature Change	3°C per minute
Leak Rate	<1x10 ⁻¹⁰ atm-cc/sec (He)
Pressure Range	1 bar to 1x10 ⁻¹¹ mbar
Surface Quality	60 /40 scratch/dig
Flatness	λ/4

Torr Scientific calcium fluoride viewports are offered in CF, ISO and KF flange styles. The clean, UHV CF versions are offered using 304L or 316LN stainless steel flanges. Non-magnetic viewports are offered as standard using annealed stainless steel weld rings and high grade 316LN and CF flanges. Flanges in 316L stainless steel are used for the high vacuum KF and ISO viewports. The rugged, bonded construction of the calcium fluoride viewports allows bake-out to a maximum of 120°C with ultra high vacuum (UHV) performance whilst the window offers extended broadband optical transmission from deep UV to the infra-red. Specially coated optics optimised to minimise reflectance at customer specified wavelength can be quoted on request. Non-standard viewports can be manufactured on request, including re-entrant style microscope/camera viewports. Annealed copper gaskets and other component accessories are also supplied by TSL.

Transmission Curve - Calcium Fluoride



Please note that the optical transmission curves are approximations and should be used for reference only

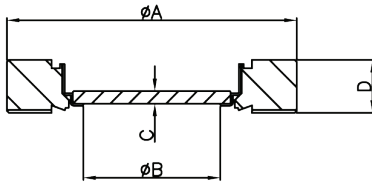


Calcium Fluoride Zero Length Viewports

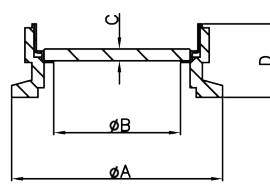


Calcium Fluoride
Zero Length
Viewports

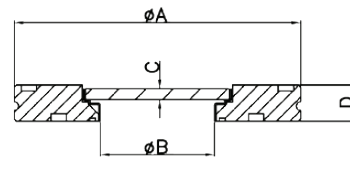
CF-1



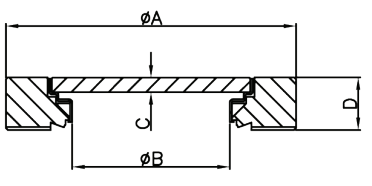
KF-1



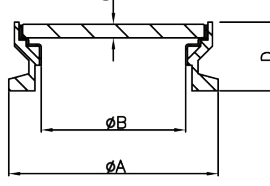
ISO-1



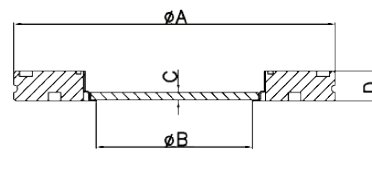
CF-2



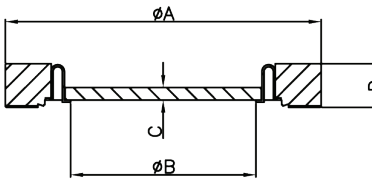
KF-2



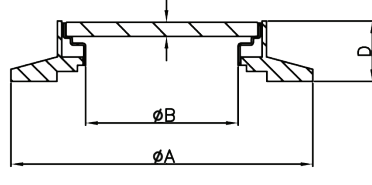
ISO-2



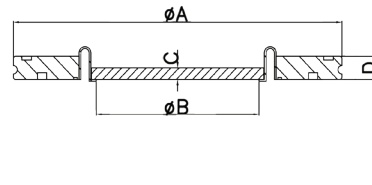
CF-3



KF-3



ISO-3



Part Number	Flange Type	A	B	C	D	Diagram	Flange Material	Weld Ring Material	Non-Magnetic
BVPZ16CaF2	NW16CF	34	15	1.5	12.7	CF-1	304L	316L	
BVPZ16CaF2-NM	NW16CF	34	15	1.5	12.7	CF-1	316LN	316L Annealed	Yes
BKVPZ16CaF2	KF16	40	15	1.5	15	KF-1	304L	316L	
BKVPZ25CaF2	KF25	40	20	2	18.5	KF-1	304L	316L	
BVPZ38CaF2	NW35CF	70	32	3	12.7	CF-1	304L	316L	
BVPZ38LACaF2	NW35CF	70	38	3.5	12.7	CF-2	304L	316L	
BVPZ38CaF2-NM	NW35CF	70	32	3	12.7	CF-1	316LN	316L Annealed	Yes
BKVPZ40/32CaF2	KF40	55	32	3	12.7	KF-1	304L	316L	
BKVPZ40CaF2	KF40	55	38	3.5	18.5	KF-2	304L	316L	
BKVPZ50CaF2	KF50	75	38	3.5	15	KF-3	304L	316L	
BVPZ64CaF2	NW63CF	114	63	5	17.4	CF-1	304L	316L	
BVPZ64CaF2-NM	NW63CF	114	63	5	17.4	CF-1	316LN	316L Annealed	Yes
BISO63VPZCaF2	ISO63	95	38	3.5	12	ISO-2	304L	316L	
BVPZ100CaF2	NW100CF	152	89	7	19.9	CF-3	304L	316L	
BVPZ100CaF2-NM	NW100CF	152	89	7	19.9	CF-3	316LN	316L Annealed	Yes
BISO100VPZCaF2	ISO100	130	63	5	12	ISO-2	304L	316L	