

PRECISION WINDOWS

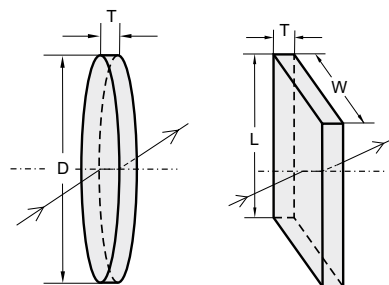
- Manufactured from the high quality UV FS and BK7
- Precision polished on both surfaces and held parallel up to 3 arcsec

These windows are designed to be used in precision optical systems. The optical transmission is high with little distortion of the transmitted signal. $\lambda/10$ transmitted wavefront distortion is usually preferred but $\lambda/4$ is offered as an option when this is not an issue.

Windows can be anti-reflection coated. For required coating, please refer to the Coatings section.

Diameters of up to 250 mm are available on request.

Please refer to the UV and IR Optics section for windows made from other materials: LiF, ZnSe, Ge, Sapphire, etc.



SPECIFICATIONS

Material	BK7, UV FS
Surface quality	20-10 scratch & dig (MIL-PRF-13830B)
Clear aperture	>90% of the diameter
Diameter tolerance	+0.00 / -0.12 mm
Thickness tolerance	±0.2 mm
Surface flatness	$\lambda/4$ or $\lambda/10$ @ 633 nm
Parallelism	<1 arcmin, <30 arcsec or <3 arcsec

Round Windows

Catalogue number		Diameter D, mm		Thickness	Flatness	Parallelism	Price, EUR
BK7	UV FS	Metric	English	T, mm			BK7 / UV FS
220-0101	220-1101	12.5	12.7	3.0	$\lambda/10$	30 arcsec	28 / 43
220-0161	220-1161	12.5	12.7	6.0	$\lambda/10$	30 arcsec	25 / 40
220-0191	220-1191	20.0	20.0	3.0	$\lambda/10$	30 arcsec	35 / 45
220-0211	220-1211	20.0	20.0	5.0	$\lambda/10$	30 arcsec	31 / 43
220-0231	220-1231	25.0	25.4	3.0	$\lambda/10$	30 arcsec	44 / 57
220-0201	220-1201	25.0	25.4	6.0	$\lambda/10$	30 arcsec	39 / 49
220-0462	220-1462	40.0	38.1	6.0	$\lambda/10$	30 arcsec	56 / 80
220-0402	220-1402	40.0	38.1	8.0	$\lambda/10$	30 arcsec	51 / 90
220-0562	220-1562	50.0	50.8	6.0	$\lambda/10$	30 arcsec	78 / 125
220-0582	220-1582	50.0	50.8	8.0	$\lambda/10$	30 arcsec	71 / 120
220-0502	220-1502	50.0	50.8	10.0	$\lambda/10$	30 arcsec	65 / 145
220-0722	220-1722	75.0	76.2	12.7	$\lambda/10$	30 arcsec	135 / 225
220-0752	220-1752	75.0	76.2	15.0	$\lambda/10$	30 arcsec	140 / 235
220-0103	220-1103	12.5	12.7	3.0	$\lambda/10$	3 arcsec	44 / 62
220-0163	220-1163	12.5	12.7	6.0	$\lambda/10$	3 arcsec	41 / 56
220-0193	220-1193	12.5	12.7	10.0	$\lambda/10$	3 arcsec	37 / 50
220-0203	220-1203	25.0	25.4	6.0	$\lambda/10$	3 arcsec	69 / 94
220-0293	220-1293	25.0	25.4	10.0	$\lambda/10$	3 arcsec	62 / 84
220-0403	220-1403	40.0	38.1	10.0	$\lambda/10$	3 arcsec	89 / 139
220-0503	220-1503	50.0	50.8	12.0	$\lambda/10$	3 arcsec	119 / 185
220-0106	220-1106	12.5	12.7	3.0	$\lambda/4$	1 arcmin	19 / 34
220-0166	220-1166	12.5	12.7	6.0	$\lambda/4$	1 arcmin	17 / 31
220-0236	220-1236	25.0	25.4	3.0	$\lambda/4$	1 arcmin	23 / 40
220-0206	220-1206	25.0	25.4	6.0	$\lambda/4$	1 arcmin	22 / 35
220-0466	220-1466	40.0	38.1	6.0	$\lambda/4$	1 arcmin	38 / 75
220-0406	220-1406	40.0	38.1	8.0	$\lambda/4$	1 arcmin	37 / 85
220-0566	220-1566	50.0	50.8	6.0	$\lambda/4$	1 arcmin	55 / 120
220-0586	220-1586	50.0	50.8	8.0	$\lambda/4$	1 arcmin	52 / 115
220-0786	220-1786	75.0	76.2	8.0	$\lambda/4$	1 arcmin	120 / 210
220-0726	220-1726	75.0	76.2	12.7	$\lambda/4$	1 arcmin	125 / 215

Please add letter M to the catalogue number for metric dimensions and letter E for English.

HOUSING ACCESSORIES

Kinematic Mirror and Beamsplitter Mount 840-0030-02

See page 7.33



Rectangular Windows

Surface flatness: $\lambda/10$ @633nm. Parallelism: <30 arcsec

Catalogue number		Rectangular dimensions		Thickness T, mm	Price, EUR BK7 / UV FS
BK7	UV FS	Width W, mm	Length L, mm		
225-0123	225-1123	15.0	20.0	3.0	45 / 78
225-0126	225-1126	15.0	20.0	6.0	40 / 70
225-0226	225-1226	25.4	25.4	6.0	43 / 76
225-0236	225-1236	20.0	30.0	6.0	46 / 110
225-0250	225-1250	25.4	50.8	10.0	59 / 135
225-0550	225-1550	50.8	50.8	10.0	83 / 189

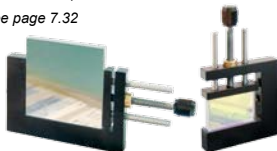
RELATED PRODUCTS

We offer AR Coated Precision Windows for Nd:YAG laser applications

See page 4.11

Rectangular Optics Holders
830-0100, 830-0110

See page 7.32



For applications where fine adjustment is required, use Prism Holders
840-0160,
840-0170

See page 7.47



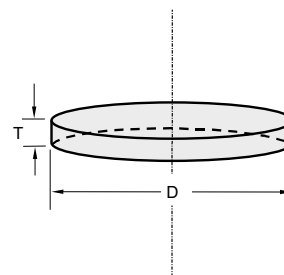
OPTICAL FLATS

- Flatness of reference surface $\lambda/20$

Optical flats are used for testing and evaluating other optical elements. An interference pattern is formed in the air between the flat and object being evaluated, and this pattern is usually more easily seen through the flat than through the object. The pattern consists of alternating bright and dark bands or fringes which are a contour map of the thickness of the air film. If the surface

of the optic is significantly flatter than the surface being evaluated, it is correct to interpret the interference pattern directly as a contour map of the surface being evaluated. If the flat is used on the top of the object, and the interference pattern viewed through the flat, it is advantageous to have an anti-reflection coating on the top surface of the flat (the surface which does not touch the object being evaluated).

For an appropriate AR coating, please refer to the Coatings section (see pages 1.5-1.6).



Catalogue number UV FS	Diameter D, mm		Thickness T, mm	Price, EUR
	Metric	English		
230-1208	25.0	25.4	8.0	112
230-1410	40.0	38.1	10.0	149

For metric dimensions please add to catalogue number letter M, for English – letter E.

SPECIFICATIONS

Material	UV FS
Diameter tolerance	+0.00 -0.12 mm
Thickness tolerance	±0.2 mm
Surface flatness:	1st surface $\lambda/20$ @ 633 nm
	2nd surface 2λ @ 633 nm