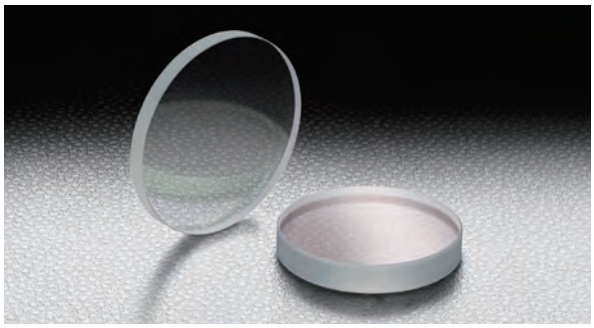
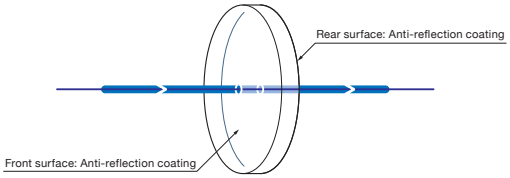
Optical Windows with Anti-Reflection Coating | WBMA RoHS

These optical windows have high-quality and may be used when light is passed through the opposite side of the partition or in the vacuum chamber. Since the windows have anti-reflection coatings the transmittance is increased so they can be used as a window for laser irradiation windows and the observation of the sample.

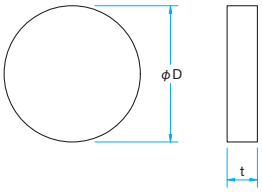
- By anti-reflection coating with a dielectric multi-layer, it is reduced to less than 1% to 4% reflection loss of the glass surface.
- Since we are using the high quality material, the image will not be distorted by the transmission of the glass, and the laser beam is not diffused.
- When you insert an window perpendicular to the optical path of the laser, the angle of the transmitted beam will not be changed.



Schematic



Outline Drawing (in mm)



●Tolerance
Diameter $\phi D^{0}_{-0.1}$
Thickness t ±0.1

How to specify the anti-reflection coating

In case of specifying a anti-reflection coating 633nm – 1064nm to near infrared lens of WBMA-30C02-10-550
⇒ WBMA-30C02-10-**IR1**

Type of AR Coat	Part Number	Wavelength Range [nm]	Transmittance [%]
Visible range	**WBMA-30C02-10-550**	400 – 700	> Average 99
Near-infrared	**WBMA-30C02-10-IR1**	633 – 1064	> Average 98.5
Infrared	**WBMA-30C02-10-IR2**	750 – 1550	> Average 98.5

! Part of the above is an example of if you want to coat anti-reflective coating on the lens of the WBMA-30C02-10-550.
! Anti-reflection coating can be available to the lens of all of WBMA.

Specifications

Material	BK7
Surface flatness of substrate	λ/10
Parallelism	<5″
Coating	Multi-layer anti-reflection coating
Incident angle	0°
Laser damage threshold	4J/cm^2 (Laser pulse width 10ns, repetition frequency 20Hz)
Surface Quality (Scratch–Dig)	40–20
Clear aperture	90% of actual aperture

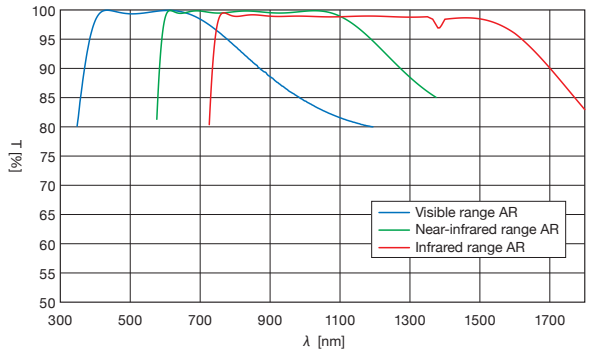
Guide

- Anti-reflection coatings are also available at your specified wave-length.
- In addition to the products described on our website and in the catalog other sizes and wedged windows are available.

Attention

- When using a laser which has a large diameter, there is a possibility that very little interference fringes will be observed in the luminance distribution of the transmitted light. To avoid this effect of the interference fringes, we provide wedged substrates.
- When used at wavelengths other than the specified wavelength region, the loss of transmittance increases slightly.
- When used in a large incident angle, there is a possibility that the transmittance decreases. Also available are anti-reflection coating to increase the transmittance at a particular angle of incidence.

Typical Transmittance Data T: Transmission



Specifications

Part Number	How to specify the anti-reflection coating: Near-infrared 633 – 1064nm	How to specify the anti-reflection coating: Infrared 750 – 1550nm	Diameter ϕD [mm]	Thckness t [mm]
WBMA-15C02-10-550	**-IR1**	**-IR2**	ϕ15	2
WBMA-15C03-10-550	**-IR1**	**-IR2**	ϕ15	3
WBMA-20C02-10-550	**-IR1**	**-IR2**	ϕ20	2
WBMA-20C03-10-550	**-IR1**	**-IR2**	ϕ20	3
WBMA-25.4C03-10-550	**-IR1**	**-IR2**	ϕ25.4	3
WBMA-25C02-10-550	**-IR1**	**-IR2**	ϕ25	2
WBMA-25C03-10-550	**-IR1**	**-IR2**	ϕ25	3
WBMA-30C02-10-550	**-IR1**	**-IR2**	ϕ30	2
WBMA-30C03-10-550	**-IR1**	**-IR2**	ϕ30	3
WBMA-40C04-10-550	**-IR1**	**-IR2**	ϕ40	4
WBMA-50C05-10-550	**-IR1**	**-IR2**	ϕ50	5

Compatible Optic Mounts

LHF-15S, -20S, -25.4S, -25S, -30S, -40S, -50S