Beam Samplers

BSB



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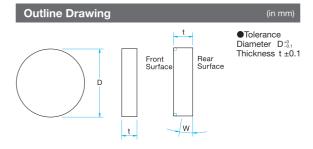
Prisms

Substrates & Windows Holder & Vibration isolator A beam sampler behaves like a plate beam splitter, it has the ability to reflect approximately 5.2% of the entire beam.

- Uncoated surfaces of optical parallels or wedged substrates are reflection surfaces. The rear surfaces are coated with multi-layer anti-reflection.
- These products have beam deviations at transmission and ghost by rear surface reflections due to the characteristics of plate beam splitters.
- To prevent ghost, wedged substrate is used with rear surface AR coating.



Rear surface: Visible multi-layer anti-reflection coating Angle of Incidence 45° Front surface: No coating



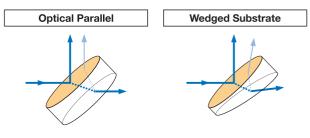
Specifications	
Material	BK7
Surface Flatness	λ/10
Coating	Front Surface: No coating Rear Surface: Visible multi-layer anti-reflection coating
Incident angle	45°
Divergence ratio (reflectance : transmittance)	5:95 (The average value of the P-Polarization and the S-Polarization)
Laser Damage Threshold	4J/cm² (Laser pulse width 4ns, repetition frequency 20Hz)
Surface Quality (Scratch-Dig)	10–5
Clear aperture	90% of actual aperture

Guide

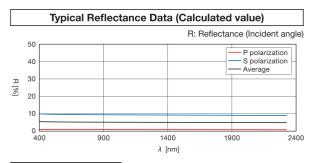
- For a guarantee in reflected wavefront error or transmitted wavefront error, please contact our International Sales Division.
- An arrow mark will be printed on the thick side of the wedge plate to indicate the surface of the mirror.

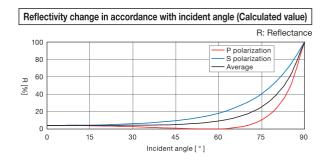
Attention

- ▶ The reflectance of 5.2% is the value when the material is BK7 and the input beam is unpolarized or circularly polarized.
- ▶ The beam deviation at transmission of a wedged beam splitter is large compared with beam splitter made of optical parallel.
- ▶ The amount of beam deviation of a beamsplitter depends on thickness of the substrate and the wavelength/the incident angle of the input beam.
- ▶ Be sure to wear laser safety goggles when checking optical path and adjusting optical axis.



φ30∙φ50					
Part Number	Wavelength Range [nm]	Diameter D [mm]	Thickness t [mm]	Parallelism	
BSB-30C03-10-550	400 – 700	φ30	3	<5″	
BSB-30C05-10W-550	400 – 700	φ30	5	1°±5′	
BSB-50C05-10-550	400 – 700	φ50	5	<5″	
BSB-50C08-10W-550	400 – 700	φ50	8	1°±5′	





Compatible Optic Mounts