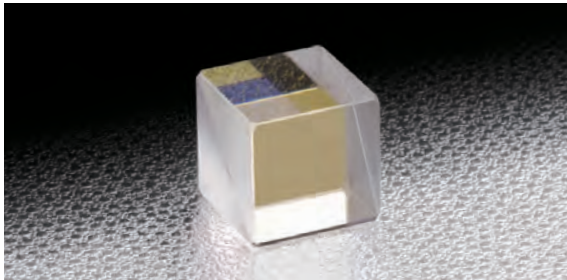
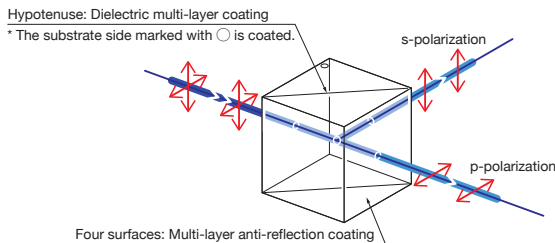


Polarizing beamsplitters consist of two right angle prisms. One of them is coated with dielectric multi-layer polarizing coating on the hypotenuse face. Polarizing beamsplitters split a monochromatic beam entering at zero degree into p-polarization as transmitted and s-polarization as reflected.

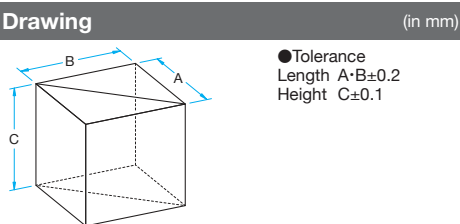
- Four surfaces of the cube are coated with narrowband multi-layer anti-reflection coatings.
- The losses of input beam of these products are minimized because of no absorption of the dielectric coatings.
- For cube beamsplitters, unlike plate beamsplitters, beam deviations of transmitted beams and ghosts rarely occur.



Schematic



Outline Drawing



Specifications

Material	BK7
Surface flatness of substrate	$\lambda/4$
Angular deviation of transmitted beam	$<10'$
Coating	Hypotenuse Surface: Dielectric multi-layer polarizing coating Four Surfaces: Narrowband multi-layer anti-reflection coating
Incident angle	0°
Transmittance of P polarized light	$>97\%$ (405nm: $>90\%$)
Extinction ratio of transmission	$T_s : T_p = 1 : 1000$
Laser Damage Threshold	0.3J/cm ² (Laser pulse with 10ns, repetition frequency 20Hz)
Surface Quality (Scratch-Dig)	20-10
Clear aperture	Circle inscribed in a square of 85% of the dimensions

Guide

- ▶ Please contact our Sales Division for customized products. (Customized on size, wavelength etc.)
- ▶ Plate-type Polarizing Beamsplitters (PBS-C) are also available upon your request. [Reference](#) B074
- ▶ There is also a high extinction ratio Glan-Thompson prism (GTPB/GTPC). [Reference](#) B094

Attention

- ▶ Input beam from the prism on the side indicated by ○. When the light is incident from the side of the prism without mark, there is a possibility that the characteristics of the transmittance and extinction ratio will change.
- ▶ The transmittance curves are based on actual measurements and might vary between manufacturing lots.
- ▶ The surface flatness is the reflected wavefront distortion of the surface before coating.
- ▶ Be sure to wear laser safety goggles when checking optical path and adjusting optical axis.

405nm – 670nm

Part Number	Wavelength Range [nm]	A=B=C [mm]	Reflectance of S polarized light [%]
PBS-10-4050	405	10	>97
PBS-15-4050	405	15	>97
PBS-20-4050	405	20	>97
PBS-10-4416	441.6	10	>97
PBS-15-4416	441.6	15	>97
PBS-20-4416	441.6	20	>97
PBS-10-4579	457.9	10	>97
PBS-15-4579	457.9	15	>97
PBS-20-4579	457.9	20	>97
PBS-10-4880	488	10	>98
PBS-15-4880	488	15	>98
PBS-20-4880	488	20	>98
PBS-10-5320	532	10	>98
PBS-12.7-5320	532	12.7	>98
PBS-15-5320	532	15	>98
PBS-20-5320	532	20	>98
PBS-5-6328	632.8	5	>98
PBS-10-6328	632.8	10	>98
PBS-12.7-6328	632.8	12.7	>98
PBS-15-6328	632.8	15	>98
PBS-20-6328	632.8	20	>98
PBS-5-6700	670	5	>98
PBS-10-6700	670	10	>98
PBS-12.7-6700	670	12.7	>98
PBS-15-6700	670	15	>98
PBS-20-6700	670	20	>98

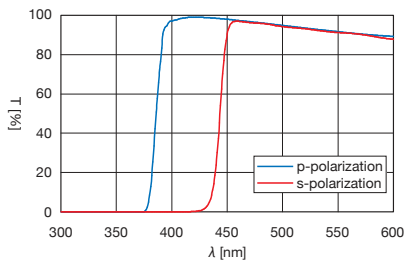
780nm – 1550nm

Part Number	Wavelength Range [nm]	A=B=C [mm]	Reflectance of S polarized light [%]
PBS-5-7800	780	5	>98
PBS-10-7800	780	10	>98
PBS-12.7-7800	780	12.7	>98
PBS-15-7800	780	15	>98
PBS-20-7800	780	20	>98
PBS-5-8300	830	5	>98
PBS-10-8300	830	10	>98
PBS-12.7-8300	830	12.7	>98
PBS-15-8300	830	15	>98
PBS-20-8300	830	20	>98
PBS-10-10640	1064	10	>97
PBS-15-10640	1064	15	>97
PBS-20-10640	1064	20	>97
PBS-5-15500	1550	5	>97
PBS-10-15500	1550	10	>97
PBS-12.7-15500	1550	12.7	>97
PBS-15-15500	1550	15	>97
PBS-20-15500	1550	20	>97

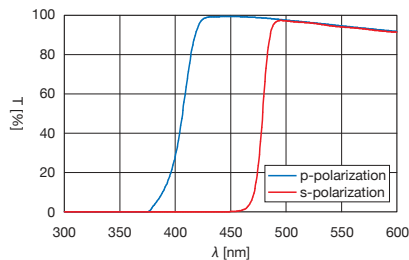
Polarizing Beam Splitters | PBS

Typical Transmittance Data T: Transmission

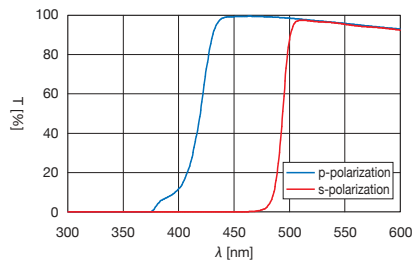
PBS-4050



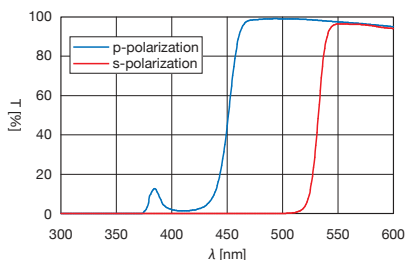
PBS-4416



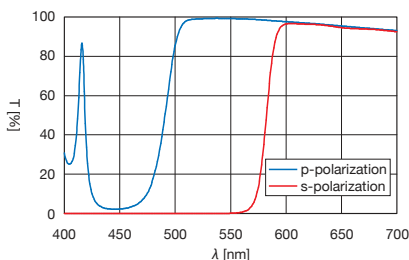
PBS-4579



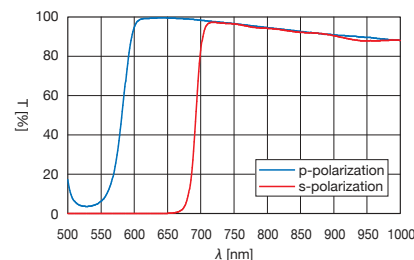
PBS-4880



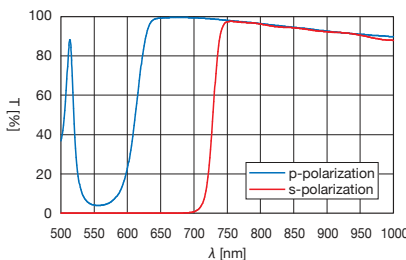
PBS-5320



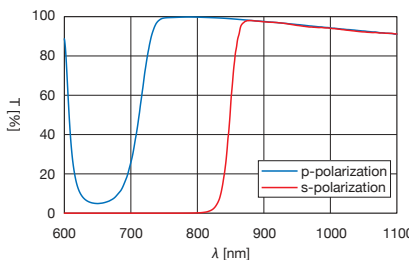
PBS-6328



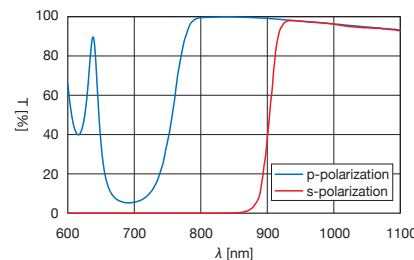
PBS-6700



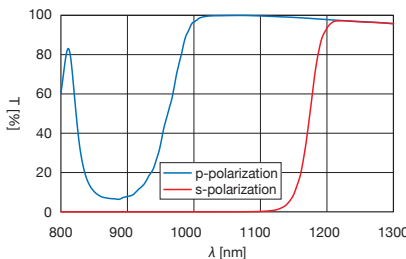
PBS-7800



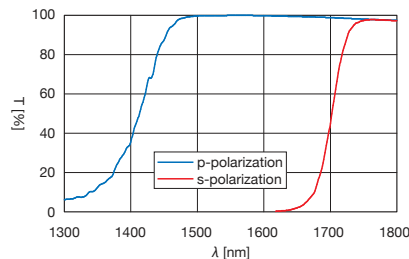
PBS-8300



PBS-10640



PBS-15500



Compatible Optic Mounts

PLH-25, -40 / KKD-25PHRO, -40PHRO / MHG-12.7PAD + MHG-MP30-NL / MHG-20PAD + MHG-MP30-NL

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