

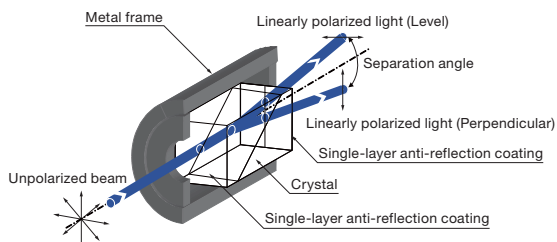
It is a prism for separating the incident beam into two linearly polarized beams with orthogonal polarizing direction.

Used in the optical system of a phase-contrast microscope.

- Outgoing beam is emitted with deviation. In this case, the emitted beams are in opposite directions depending on the orientation of polarization.
- A single-layer anti-reflection coating has been applied on the surface of the Wollaston prism to provide higher transmittance.

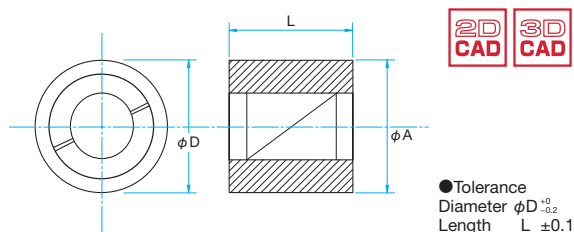


### Schematic



### Outline Drawing

(in mm)



### Specifications

|                                  |   |
|----------------------------------|---|
| Material                         | $\alpha$ -BBO, Calcite                                |
| Beam Deviation                   | $<3''$  |
| Transmitted wavefront distortion | $\lambda/4$   |
| Coating                          | MgF <sub>2</sub> Single-layer anti-reflection coating |
| Laser Damage Threshold           | 0.3J/cm <sup>2</sup> (Pulse duration 10ns)            |
| Surface Quality (Scratch-Dig)    | 20-10   |
| Material of metal frame          | Aluminum Finishing: Black anodized                    |

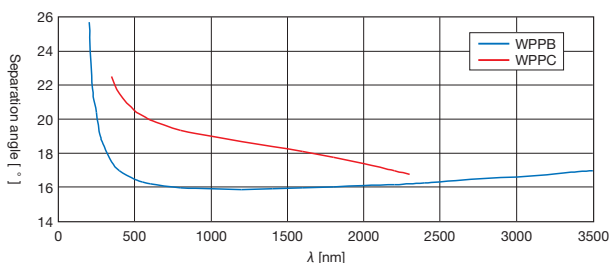
### Guide

- ▶ Glan Thompson prism with wider acceptance angle (GTPB / GTPC) and Glan laser prism for high-power laser (GLPB / GLPC) are also available.
- ▶ If you need uncoated Glan Laser prism or anti-reflection coating with specific reflectance, please contact our Sales Division with your request.

### Attention

- ▶ A change in the incident angle may also change the extinction ratio of the linearly polarized transmitted light.
- ▶ Separation angle will vary depending on the wavelength. Please confirm the wavelength characteristic graph for separation angle.
- ▶ Because of natural calcite crystals, there are individual differences, and variations in quality.

### Typical Separation angle Data



### $\alpha$ -BBO

| Part Number  | Wavelength Range [nm] | Extinction ratio    | Separation angle 190nm [°] | Separation angle 800nm [°] | Separation angle 3500nm [°] | $\phi A$ [mm] | $\phi D \times L$ |
|--------------|-----------------------|---------------------|----------------------------|----------------------------|-----------------------------|---------------|-------------------|
| WPPB-06-14SN | 190 - 3500            | $<5 \times 10^{-6}$ | 27                         | 16                         | 17                          | $\phi 6$      | 15x14             |
| WPPB-08-16SN | 190 - 3500            | $<5 \times 10^{-6}$ | 27                         | 16                         | 17                          | $\phi 8$      | 25.4x16           |
| WPPB-10-18SN | 190 - 3500            | $<5 \times 10^{-6}$ | 27                         | 16                         | 17                          | $\phi 10$     | 25.4x18           |
| WPPB-15-23SN | 190 - 3500            | $<5 \times 10^{-6}$ | 27                         | 16                         | 17                          | $\phi 15$     | 30x23             |
| WPPB-20-28SN | 190 - 3500            | $<5 \times 10^{-6}$ | 27                         | 16                         | 17                          | $\phi 20$     | 38x28             |

### Calcite

| Part Number  | Wavelength Range [nm] | Extinction ratio    | Separation angle 350nm [°] | Separation angle 980nm [°] | Separation angle 2300nm [°] | $\phi A$ [mm] | $\phi D \times L$ |
|--------------|-----------------------|---------------------|----------------------------|----------------------------|-----------------------------|---------------|-------------------|
| WPPC-06-14SN | 350 - 2300            | $<5 \times 10^{-5}$ | 22.5                       | 19                         | 16.7                        | $\phi 6$      | 15x14             |
| WPPC-08-16SN | 350 - 2300            | $<5 \times 10^{-5}$ | 22.5                       | 19                         | 16.7                        | $\phi 8$      | 25.4x16           |
| WPPC-10-18SN | 350 - 2300            | $<5 \times 10^{-5}$ | 22.5                       | 19                         | 16.7                        | $\phi 10$     | 25.4x18           |
| WPPC-15-23SN | 350 - 2300            | $<5 \times 10^{-5}$ | 22.5                       | 19                         | 16.7                        | $\phi 15$     | 30x23             |
| WPPC-20-28SN | 350 - 2300            | $<5 \times 10^{-5}$ | 22.5                       | 19                         | 16.7                        | $\phi 20$     | 38x28             |

### Compatible Optic Mounts

GTPC-PH30, -PH50 / GTPC-SPH30, -SPH50 / GTPC-ADP

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