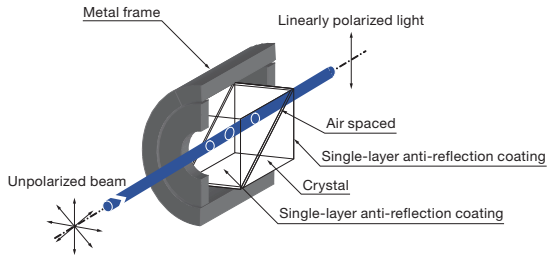
Glan Tayler Prisms | GYPB/GYPC

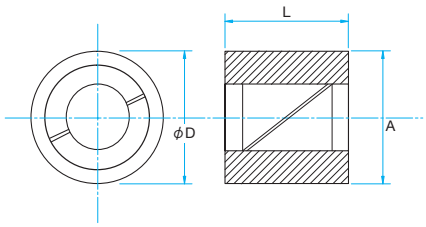
The transmission loss is minimal, and a high extinction ratio below 5×10^{-5} is obtained.
The Calcite type that can be used in the visible to the infrared region,and α-BBO crystal type usable in the ultraviolet region are available.
The polarizer provides a very short prism length.

- The two prisms are mounted with a small gap (air-gap) to eliminate the adhesive and reduce laser damage.
- A single-layer anti-reflection coating has been applied on the surface of the polarizing prism to provide high transmittance.

Schematic



Outline Drawing (in mm)



2D CAD 3D CAD

●Tolerance
Diameter $\phi D^{+0}_{-0.2}$
Length L ±0.1

Specifications

Material	α-BBO, Calcite
Beam Deviation	<3″
Transmitted wavefront distortion	$\lambda/4$
Coating	MgF_2 Single-layer anti-reflection coating
Laser Damage Threshold	1J/cm² (Pulse duration 10ns)
Surface Quality (Scratch–Dig)	20–10
Material of metal frame	Aluminum Finishing: Black anodized

Guide

- Glan laser prism for high-power laser (GLPB / GLPC) and Wollaston prism (WPPB / WPPC) are also available.
- If you need uncoated Glan Thompson 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 changes the extinction ratio of the linearly polarized transmitted light.
- Light not transmitted through the Gran Taylor prism is absorbed and scattered in all side faces of the prism. In the high-precision measurement system, it is necessary to use pinhole to block light scattered in the side face of the prism.
- Because of natural calcite crystals, there are individual differences, and variations in quality.

α-BBO

Part Number	Wavelength Range [nm]	Extinction ratio	ϕA [mm]	ϕD×L
GYPB-06-15SN-2/3	200 – 270	$<5\times10^{-6}$	ϕ6	15×15
GYPB-08-17SN-2/3	200 – 270	$<5\times10^{-6}$	ϕ8	25.4×17
GYPB-10-19SN-2/3	200 – 270	$<5\times10^{-6}$	ϕ10	25.4×19
GYPB-15-23SN-2/3	200 – 270	$<5\times10^{-6}$	ϕ15	30×23
GYPB-20-29SN-2/3	200 – 270	$<5\times10^{-6}$	ϕ20	38×29
GYPB-06-15SN-3/7	300 – 700	$<5\times10^{-6}$	ϕ6	15×15
GYPB-08-17SN-3/7	300 – 700	$<5\times10^{-6}$	ϕ8	25.4×17
GYPB-10-19SN-3/7	300 – 700	$<5\times10^{-6}$	ϕ10	25.4×19
GYPB-15-23SN-3/7	300 – 700	$<5\times10^{-6}$	ϕ15	30×23
GYPB-20-29SN-3/7	300 – 700	$<5\times10^{-6}$	ϕ20	38×29
GYPB-06-15SN-7/30	700 – 3000	$<5\times10^{-6}$	ϕ6	15×15
GYPB-08-17SN-7/30	700 – 3000	$<5\times10^{-6}$	ϕ8	25.4×17
GYPB-10-19SN-7/30	700 – 3000	$<5\times10^{-6}$	ϕ10	25.4×19
GYPB-15-23SN-7/30	700 – 3000	$<5\times10^{-6}$	ϕ15	30×23
GYPB-20-29SN-7/30	700 – 3000	$<5\times10^{-6}$	ϕ20	38×29

Calcite

Part Number	Wavelength Range [nm]	Extinction ratio	ϕA [mm]	ϕD×L
GYPC-06-15SN	350 – 2300	$<5\times10^{-5}$	ϕ6	15×15
GYPC-08-17SN	350 – 2300	$<5\times10^{-5}$	ϕ8	25.4×17
GYPC-10-19SN	350 – 2300	$<5\times10^{-5}$	ϕ10	25.4×19
GYPC-15-23SN	350 – 2300	$<5\times10^{-5}$	ϕ15	30×23
GYPC-20-29SN	350 – 2300	$<5\times10^{-5}$	ϕ20	38×29

Compatible Optic Mounts

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