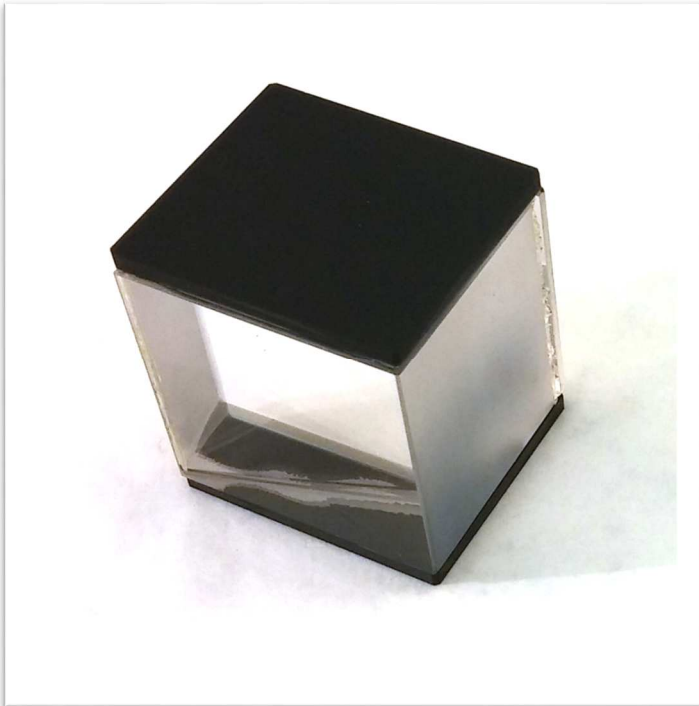


LEYSOP LTD

Manufacturers and suppliers of electro-optic components

Rochon and Wollaston Polarizers



Cemented or optically contacted (quartz only).

Low insertion loss

Wide transmission range

High extinction ratio

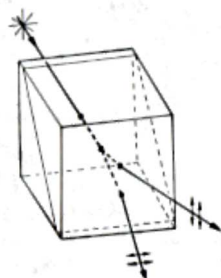
AR coating options

Optional cylinder mount

The Wollaston and Rochon polarizers are both beam splitting type devices which rely upon the large birefringence of calcite to cause a difference in the refraction angle at the interface between two differently orientated prisms. In both the Wollaston and the Rochon polarizer the prisms are usually cemented at the interface so the optical power handling is low as a result.

Wollaston Type

Wollaston prism polarizing beam splitters consist of two equal angle calcite prisms optically coupled with optic axis orthogonally crossed to the direction of propagation. The beam separation of about 20° is

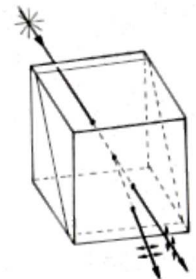


then approximately balanced about the input beam axis. The transmission range for cemented prisms of 0.32 to 2.5 μ m to 18° at 2.5 μ m.

Rochon Type

In the Rochon polarizer one polarization state is transmitted un-deviated through the prism while the orthogonal component is deviated approximately 10°.

The straight through component is clearly chromatic while the deviated beam varies from 11° at 0.32 μ m to 8.5° at 2.5 μ m.



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Product Specifications

Type	Aperture (mm)	Deviation (deg)	Mount Dia (mm)	Mount Length (mm)
BSW	10	20°	25	11
BSW	12	20°	25	13
BSW	15	20°	30	16
BSW	20	20°	40	20
BSR	10	10°	25	11
BSR	12	10°	25	13
BSR	15	10°	30	16
BSR	20	10°	40	20

Both varieties can be made from optically contacted quartz. The beam deviation is then reduced to only 1° and 0.5° respectively because of the much lower birefringence of quartz compared to calcite. However, the spectral range is increased to 0.2 - 2.0µm.