

# LEYSOP LTD

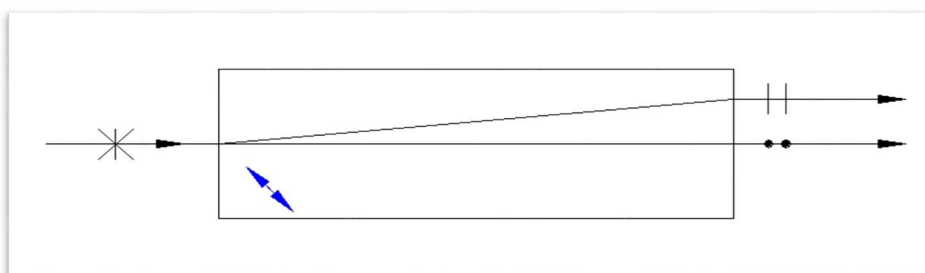
Manufacturers and suppliers of electro-optic components

## Beam Displacement Rhombs

This simple device, usually manufactured in calcite, provides an elegant way of separating a beam into its two orthogonal polarization components. A beam entering a block of calcite with its input and output faces cut at  $42^\circ$  to the optic-axis will undergo a maximum displacement (but not angular deviation) of the extra-ordinary ray component. The effect provides a displacement of the centroid of the beam of a little over 1 part in 10 of the propagation length, thus at  $1\mu\text{m}$  wavelength the displacement produced by a 10mm long rhomb will be approximately 1.05mm. Other birefringent materials may also be of use for wavelengths not covered by the transmission of calcite, an example of which would be quartz, but the displacement

produced will in general be lower than that of an equivalently long calcite rhomb because of the lower birefringence of quartz.

Leysop can provide these components in other apertures and displacements as you require and with or without AR coatings, as you prefer. Components can be provided mounted in protective rings or supplied bare. Please enquire with us for your specific requirements and provided it is possible we would be happy to meet your needs. For example, a 5mm aperture rhomb of length 25mm (nominal displacement 2.5mm),



## Product Specification

Model	Aperture (mm)	Length (mm)	Displacement (mm)	Mount Dia (mm)
BSC-08-20	8	20	2	25
BSC-08-30	8	30	3	25
BSC-08-40	8	40	4	25
BSC-08-50	8	50	5	25
BSC-08-60	8	60	6	25
BSC-10-20	10	20	2	25
BSC-10-30	10	30	3	25
BSC-10-40	10	40	4	25
BSC-10-50	10	50	5	25
BSC-10-60	10	60	6	25

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