

# Dove Prisms | DOP

RoHS Catalog Code W3130

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45 Degrees Angle

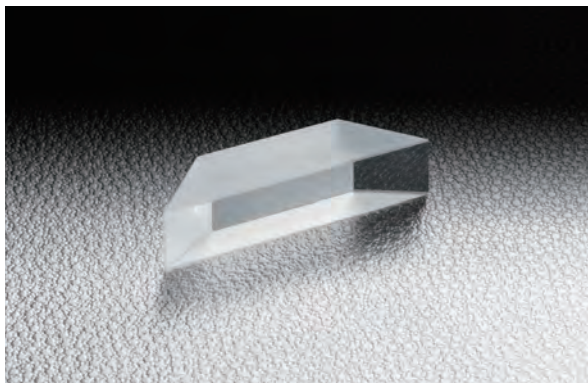
Retro-reflectors

Equilateral Dispersing Prisms

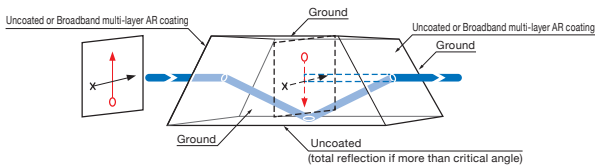
Others

Dove prisms have the useful property that they completely invert an image by 180 degrees. If the prism is rotated about its axis the image will rotate at twice the rate of rotation of the prism. Dove prisms provide the most convenient and most precise method of rotating a beam and their long length and square profile make them easy to mount in a cylindrical sleeve. Because of the very limited field of view dove prisms need to be used with collimated or near-collimated beams. These prisms are offered with and without a broadband multilayer anti-reflective coating on the end faces. The hypotenuse face acts as a TIR surface and is therefore normally not coated. It is important, therefore, to keep this surface clean.

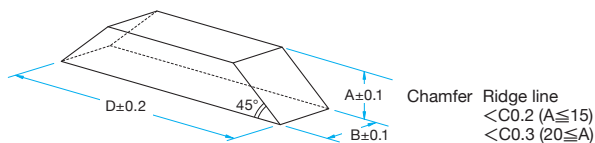
- Dove prisms uses a precision fabrication process to ensure minimal light incident axis deviation.
- We are offering high surface flatness at  $\lambda/4$  for laser experimental use.



### Schematic



### Outline Drawing (in mm)



### Specifications

Material	BK7 ( $n_d=1.517$ )
Inclination angle	$45^\circ \pm 3'$
Coating	DOP-4: Uncoated DOP-4M: Broadband multi-layer AR coating (400 - 700nm)
Surface Quality (Scratch-Dig)	20-10
Clear aperture	Circle or ellipse inscribed in a rectangular of 90% of the dimensions A and B

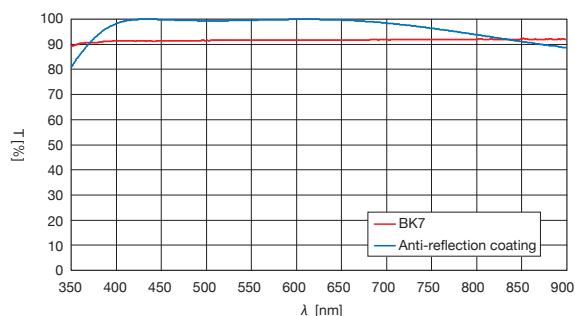
### Guide

► AR coating on incident surface and emitting surface and aluminum coat on lower surface can be done as an option. Please consult our Sales Division for coatings suitable for your application.

### Attention

- When the prism is in the upright image position, the right and left side images exhibit mirror symmetry.
- The chromatic aberration may happen when observation of image at high magnification through the dove prism.
- The D side dimension is to the theoretical sharp edge. Actual measurement may be smaller due to the chamfer.
- The bottom uncoated surface should be clean of all dirt to minimize being displayed in the image.

### Typical Transmittance Data T: Transmission



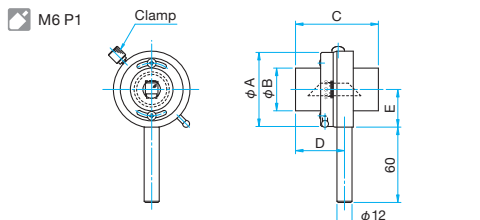
### Specifications

Part Number	A = B [mm]	Length D [mm]	Surface flatness of substrate
DOP-10-4	10	42.2	$\lambda/4$
DOP-15-4	15	63.3	$\lambda/4$
DOP-20-4	20	84.4	$\lambda/4$
DOP-25-4	25	105.5	$\lambda/4$
DOP-30-4	30	126.6	$\lambda/4$
DOP-10-4M	10	42.2	$\lambda/4$
DOP-15-4M	15	63.3	$\lambda/4$
DOP-20-4M	20	84.4	$\lambda/4$
DOP-25-4M	25	105.5	$\lambda/4$
DOP-30-4M	30	126.6	$\lambda/4$

# Dove Prism Holders | DBH

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We offer holders to mount each of our catalog dove prisms with both rotational adjustment, consult our Sales Division for assistance in your selection.



Part Number	$\phi A$ [mm]	$\phi B$ [mm]	C [mm]	D [mm]	E [mm]
DBHN-10	$\phi 60$	$\phi 34$	66	41	30
DBH-30	$\phi 94$	$\phi 64$	152	80	46.5

Specifications			Primary material: Aluminum Finish: Black Anodized	
Part Number	Part number of optics included	Sensitivity [°]	Weight [kg]	
DBHN-10	DOP-10-4	1	0.35	
DBH-30	DOP-30-4	1	1.3	