

Right Angle Prisms | RAP/RASP

RoHS

Application Systems

Machine Vision

Manual Positions

Motion Control Products

Optical & Mirror Holder

FA Parts

Measurement & Control

FA Electrical Parts

Tool & Measure

Cleanroom & AntiStatic

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Mirrors

Beamsplitters

Filters

Polarizers

Lenses

Multi-Element Optics

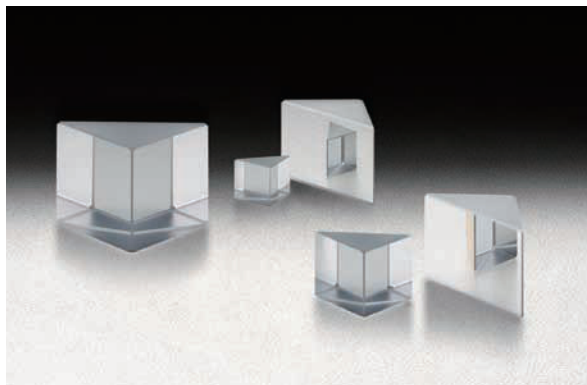
Prisms

Substrates & Windows

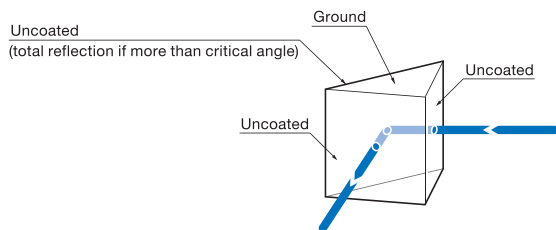
Holder & Vibration isolator

It is a prism which is not coated and can be used in various applications, such as total internal reflection critical angle and wavelength dispersion. In addition, because it is possible to various coating on prism, it is possible to produce a prism optical element of which the wavelength customer use.

- There is a type of synthetic quartz can also be used in the ultraviolet range of wavelength and BK7 type that can be used in the infrared range of the visible light.
- With very high accuracy and precision angle of the prism surface, it can also be used directly bonded to machined parts.
- Independent even without a special holder, and since the choice of a variety of installation methods, it is useful as a substitute for the small mirror.

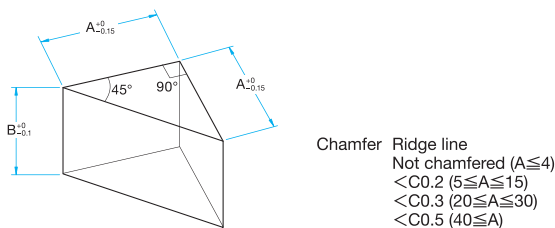


Schematic



Outline Drawing

(in mm)



BK7

Part Number	A = B [mm]
RAP-01-4M	1
RAP-02-4M	2
RAP-03-4M	3
RAP-04-4M	4
RAP-05-4M	5
RAP-07-4M	7
RAP-10-4M	10
RAP-12.7-4M	12.7
RAP-15-4M	15
RAP-20-4M	20
RAP-25-4M	25
RAP-25.4-4M	25.4
RAP-30-4M	30
RAP-40-4M	40
RAP-50-4M	50

Specifications

Material	BK7 (Refractive Index $n_d=1.517$) Synthetic fused silica (Refractive Index $n_d=1.458$)
Surface flatness of substrate	$\lambda/4$
Angle accuracy	$\pm 1'$ (90° or 45°)
Surface Quality (Scratch-Dig)	10-5
Clear aperture	90% of Circle or Ellipse to Actual dimension for entrance and exit surface

Guide

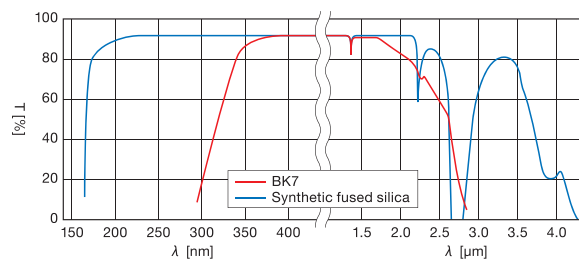
- It is available other than the products which listed in the catalog.
- Production of high-precision prism and high angle accuracy are also available.

Attention

- A dimension measured is slightly shorter than the catalog size because it contains chamfer dimension. Dimensional tolerances are defined by the sides of the triangle with the slope and two bottom surface.
- Surface reflectance of the critical angle is nearly 100% reflection. However, the reflectivity of the surface that emits or incident on the glass has a loss of about 8 percent.
- Most of the light through the prism side, if the light is incident on the slopes from the air it will not be reflected only partially.
- In BK7, when the incident light at an angle of 41 degrees or less (less than the critical angle) from the side of the glass, it will not be a total reflection on the part of the light is transmitted through the air for the slope in BK7. In synthetic fused silica at an angle of incidence of 43 degrees or less (less than the critical angle) will not be a total internal reflection.
- Sometimes when dirt or fingerprints on the surface with no coating, total reflection will not happen any more than the critical angle. Do not contact anything on the no coated surface.

Typical Transmittance Data

T: Transmission



Synthetic fused silica

Part Number	A = B [mm]
RASP-05-4M	5
RASP-07-4M	7
RASP-10-4M	10
RASP-12.7-4M	12.7
RASP-15-4M	15
RASP-20-4M	20
RASP-25-4M	25
RASP-25.4-4M	25.4
RASP-30-4M	30

Compatible Optic Mounts

PH / SH