

PELLIN-BROCA PRISMS

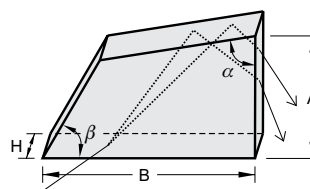
- Extremely small loss of a p-polarized beam
- Light separated by wavelength is conveniently turned at an 90° angle with minimum deviation
- UV FS prisms provide 1.26° separation between 532 nm and 1064 nm

In a Pellin-Broca prism, an ordinary dispersing prism is split in half along the bisector of the apex angle. Using a right angle prism, the two halves are joined to create a dispersing prism with an internal right angle bend obtained by total internal reflection. The entrance beam is deviated at an 90° angle to its initial direction.

Material	Catalogue number	A, mm	B, mm	H, mm	Price, EUR
BK7	325-0206	11.0	20.0	6.4	57
	325-0412	23.5	40.0	12.7	63
UV FS	325-1206	11.0	20.0	6.4	110
	325-1215	15.0	26.0	15.0	121
	325-1412	23.5	40.0	12.7	150



Most of the Prisms are available for fast off-the-shelf delivery. Check the availability at www.eksmaoptics.com



SPECIFICATIONS

Material	BK7, UV FS
Surface quality	20-10 scratch & dig (MIL-PRF-13830B)
Surface flatness	$\lambda/10$ @ 633 nm
Angles	$\alpha = 79.5^\circ \pm 0.5^\circ$, $\beta = 60^\circ \pm 1^\circ$
Design wavelength	546.1 nm
Dimensions	± 0.2 mm
Clear aperture	> 80% of dimensions

HOUSING ACCESSORIES

Tilt/Rotation Stage
860-0110

See page 8.130



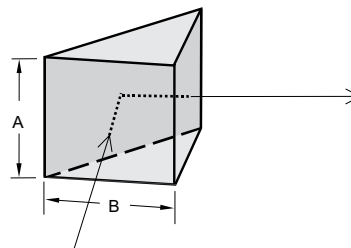
RIGHT ANGLE PRISMS

- 45–45–90 degree prisms
- Can be used as internal or external reflectors or as retro-reflectors

These prisms are used to direct beams at 90 degrees by using a hypotenuse face in total internal reflection (TIR). Right angle prisms are often preferable to an inclined mirror in applications involving severe acoustic or inertial loads, because they are easier to mount and deform much less than a mirror in response to external mechanical stress. As long as acceptance angle limitations for TIR from the roof faces are not exceeded, right angle prisms can serve as a retro reflector, turning beams back to the original direction.

For various HR or AR coatings, please refer to the Coatings section.

Contact us for other types of prisms
e.g. trapezoidal, various isosceles, Dove, Amici, Penta, etc.



SPECIFICATIONS

Material	BK7, UV FS
Surface quality	40-20 scratch & dig (MIL-PRF-13830B)
Surface flatness	$\lambda/4$ @ 633 nm
Clear aperture	80% of the face size
90° angle tolerance	± 2 arcmin or ± 5 arcsec
Pyramidal tolerance	± 1 arcmin or ± 30 arcsec
Dimensions	± 0.25 mm

HOUSING ACCESSORIES

Prism Holders 840-0160,
840-0170

See page 8.85



Catalogue number	Size of face,	90° angle	Pyramidal	Price, EUR	
BK7	UV FS	A × B mm	tolerance	tolerance	BK7 / UV FS
330-0102	330-1102	10.0 × 10.0	2 arcmin	1 arcmin	20 / 49
330-0122	330-1122	12.5 × 12.5	2 arcmin	1 arcmin	22 / 51
330-0152	330-1152	15.0 × 15.0	2 arcmin	1 arcmin	25 / 62
330-0202	330-1202	20.0 × 20.0	2 arcmin	1 arcmin	31 / 75
330-0252	330-1252	25.0 × 25.0	2 arcmin	1 arcmin	37 / 86
330-0105	330-1105	10.0 × 10.0	5 arcsec	30 arcsec	42 / 93
330-0125	330-1125	12.5 × 12.5	5 arcsec	30 arcsec	44 / 95
330-0155	330-1155	15.0 × 15.0	5 arcsec	30 arcsec	50 / 103
330-0205	330-1205	20.0 × 20.0	5 arcsec	30 arcsec	57 / 116
330-0255	330-1255	25.0 × 25.0	5 arcsec	30 arcsec	73 / 142

Custom fabrication also available: coating, cutting, edging, drilling according to your specification.