

TECHSPEC[®] 50mm, MgF₂ Coated, High Tolerance Penta Prism



Stock **#47-459** 20+ In Stock

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1

+

€331^{.00}

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Volume Pricing	
Qty 1-5	€331,00 each
Qty 6-25	€264,00 each
Qty 26-49	€248,00 each
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 Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Type:
Penta Prism

Physical & Mechanical Properties

Length (mm):
50.00

Dimensional Tolerance (mm):
±0.10

Protective as needed	Bevel:
50.00	Length of Legs (mm):
Optical Properties	
MgF ₂ & Aluminized	Coating:
N-BK7	Substrate: □
40-20	Surface Quality:
Right-Handed	Image Orientation:
Coating Specification: Entrance/Exit Faces: R _{avg} ≤ 1.75% @ 400 - 700nm Reflecting Surfaces: Aluminized, Inconel & Black Paint	
90	Ray Deviation (°):
400 - 700	Wavelength Range (nm):
Damage Threshold, By Design: □ Entrance & Exit Faces: 10 J/cm ² @ 532nm, 10ns Reflecting Surfaces: 0.3 J/cm ² @ 532 & 1064nm, 10ns	
±1	Beam Deviation Tolerance (arcmin):
1.00	Power (fringes) @ 632.8nm:
0.25	Irregularity (fringes) @ 632.8nm:
Regulatory Compliance	
Compliant	RoHS 2015:
Compliant	Reach 223:
View	Certificate of Conformance:

Product Details

- Ray Deviation of 90°
- Right Handed Image
- Optical Tool for Defining a Right Angle
- Additional [Penta Prism](#) Options Available

TECHSPEC® N-BK7 Penta Prisms are five-sided prisms featuring a ray deviation of 90° and a right-handed image. The reflecting surfaces are aluminized. Slight movement of the prism does not affect the true right angle at which light rays are reflected, making a penta prism the ideal optical tool for defining a right angle in an optical system. TECHSPEC® N-BK7 Penta Prisms are made from precision N-BK7 for use in a variety of visible light applications. These prisms are offered with a VIS 0° or MgF2 coating, in a variety of sizes.

Technical Information



Penta Prism Ray Path



Penta Prism Tunnel Diagram

Stock No.	Coating	Dimensions	
		A	B
#85-159	MS 0°	0.50	0.60
#85-160	MS 0°	1.00	1.20
#45-112	MgF ₂	5.00	6.10
#48-595	MS 0°		
#32-030	MgF ₂	10.00	11.95
#48-596	MS 0°		
#43-502	MgF ₂	15.00	15.96
#48-597	MS 0°		
#31-051	MgF ₂	20.00	21.65
#48-598	MS 0°		
#42-779	MgF ₂	25.00	27.90
#47-458	MgF ₂		
#48-599	MS 0°		
#45-073	MgF ₂	30.00	32.47
#48-600	MS 0°		
#45-402	MgF ₂	35.00	37.88
#48-601	MS 0°		
#45-674	MgF ₂	40.00	43.30
#48-602	MS 0°		
#45-675	MgF ₂	45.00	48.71
#48-603	MS 0°		
#45-676	MgF ₂	50.00	54.12
#47-459	MgF ₂		
#48-604	MS 0°		



Custom

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
 - High-precision surface quality and flatness
 - Tight tolerances and complex geometries
 - Scalable production—from prototype to volume
- Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).
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