

TECHSPEC® 25mm UV-AR Coated and Aluminized, Fused Silica Penta Prism



Stock #49-023 CLEARANCE **20+ In Stock**

⊖ 1 ⊕ C\$144²⁰

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Volume Pricing	
Qty 1+	C\$144.20 each
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General

Penta Prism **Type:**

Physical & Mechanical Properties

±0.10 **Dimensional Tolerance (mm):**

Protective as needed **Bevel:**

Optical Properties

Coating:

UV-AR & Aluminized

Substrate:

Fused Silica (Coming 7980)

Surface Quality:

20-10

Angle Tolerance (arcmin):

±1

Image Orientation:

Right-Handed

Coating Specification:

Entrance/Exit Faces: $R_{\text{abs}} \leq 1.0\%$ @ 250 - 425nm,
 $R_{\text{avg}} \leq 0.75\%$ @ 250 - 425nm, $R_{\text{avg}} \leq 0.5\%$ @ 370 - 420nm
Reflecting Surfaces: $R_{\text{avg}} > 85\%$ @ 250 - 700nm
w/Black Overpaint

Ray Deviation (°):

90

Wavelength Range (nm):

250 - 425

Damage Threshold, By Design:

Entrance/Exit Faces: 3 J/cm² @ 355nm, 10ns
Reflecting Surfaces: 0.3 J/cm² @ 532nm & 1064nm, 10ns

Power (fringes) @ 632.8nm:

0.20

Irregularity (fringes) @ 632.8nm:

0.20

Regulatory Compliance

Certificate of Conformance:

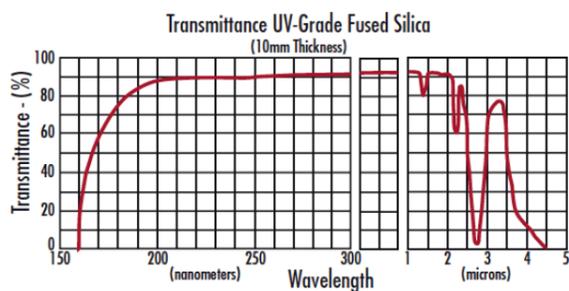
[View](#)

Product Details

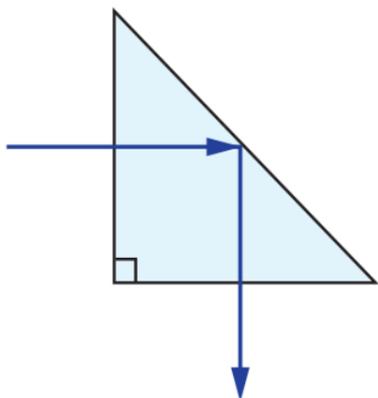
- Ray Deviation of 90°
- Right Handed Image
- Optical Tool for Defining a Right Angle
- Additional [Penta Prism](#) Options Available

Penta prisms are five-sided prisms featuring a ray deviation of 90° and a right handed image. The UV-AR coated options also have aluminized reflecting surfaces for increased efficiency. 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® UV Fused Silica Penta Prisms are made from UV fused silica which features low thermal expansion and excellent transmission throughout the UV, VIS, and NIR spectral ranges.

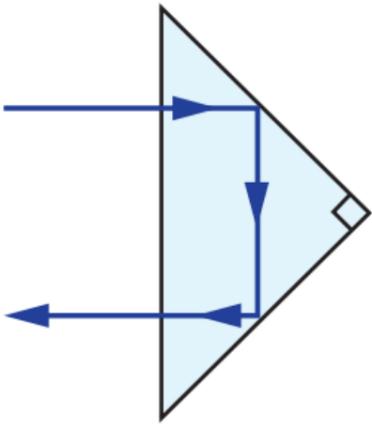
Technical Information



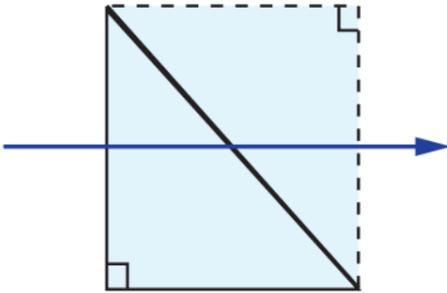
UV FS Transmission Curve



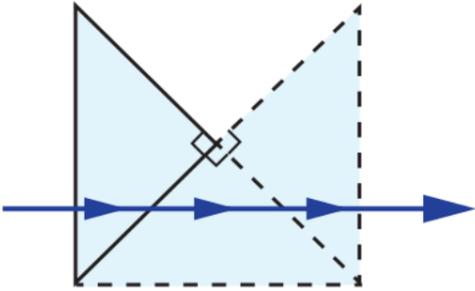
Right Angle Prism Ray Path



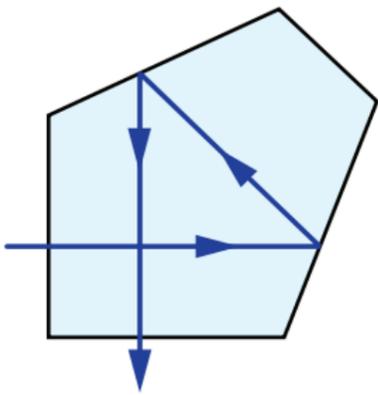
Right Angle Prism Ray Path



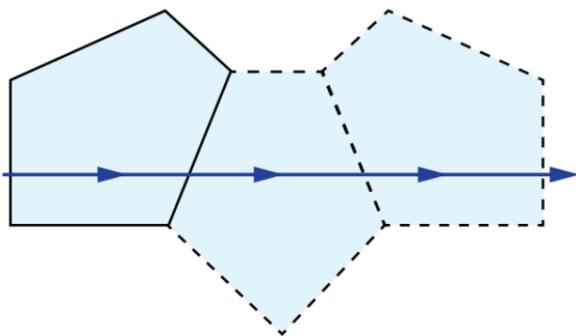
Right Angle Prism Tunnel Diagram



Right Angle Prism Tunnel Diagram



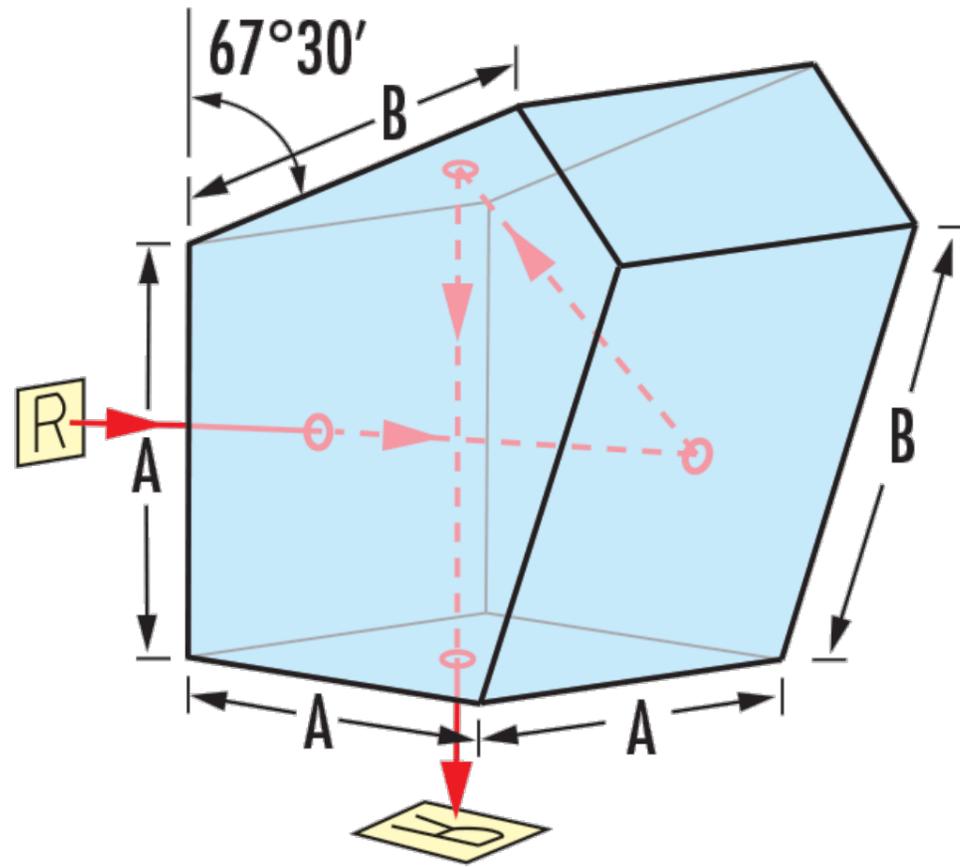
Penta Prism Ray Path



Penta Prism Tunnel Diagram

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Stock No.	A	B
#49-016	5.00mm	6.10mm
#49-020		
#49-017	10.00mm	11.95mm
#49-021		
#49-018	20.00mm	21.65mm
#49-022		
#49-019	25.00mm	27.90mm



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](#).