

Prisms

Right-angle, roof and Powell prisms in K9 or fused silica for telescopic, imaging and range-measurement systems. Right-angle prisms bend image paths or redirect light at 90° by total internal reflection; roof prisms revert and invert the image; Powell prisms generate a uniform straight line for alignment, machine vision, construction and process control. Other prism types can be offered on request.

Prism types

Prism	Description
Right-angle prism	Typically used to bend image paths or to redirect light at 90°. Using the critical angle, total internal reflection of the incident light is one of its basic functions. Easy to install, with good stability and strength against mechanical stress, so suited to all kinds of devices and instruments.
Roof prism	Reverts and inverts the image as well as bending the optical path by 90°. Its smaller size lets the objective and eyepiece sit in a line, suiting compact binoculars and telescopic systems.
Powell prism	A line generator that displays a uniform straight reference line for alignment, machine-vision systems, construction and process control. Also usable with lower-power lasers. Available in fan angles of 5°, 7°, 10°, 30°, 45°, 60°, 75°, 90° and 100° for custom applications, at all wavelengths.

Common specification (right-angle prisms)

Parameter	Value
Substrate Material	H-K9L/ N-BK7/ Fused Silica
Dimension Tolerance	±0.1mm
Thickness Tolerance	±0.15mm
Surface Quality	20-10/40-20/60-40
Decentration	<3·
Clear Aperture	>90%
Surface Flatness	·/10@632.8nm
Uncoated Wavelength Range	400 nm - 700 nm

Specification

Parameter	Value
Material	K9, fused silica
Product application	Telescopic systems, imaging systems and range-measurement systems