

Hollow Beamsplitting Pentamirror™ (HBPM)

Description

The Hollow Beamsplitting Pentamirror™ is a constant deviation device developed by PLX to duplicate the performance of a pentamirror, with added advantages. The Hollow Beamsplitting Pentamirror extends the range of a pentamirror through multiple outputs that are 90 degrees from one another.

Features / Characteristics

The device enables incoming light to be deviated by 90° with great accuracy while generating additional output beams. These outputs will also be at 90° from one another. The assembly is invariant and thus permits movements such as rotation without compromising either the 90° deviation or its inherent accuracy.

As a hollow optical assembly, there are no wavelength limitations as there are with solid pentaprisms. The HBPM features accuracies to better than 1 arcsecond.

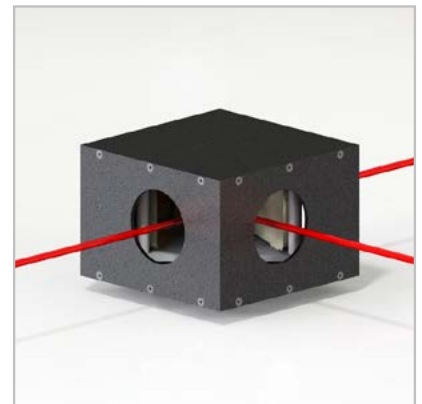
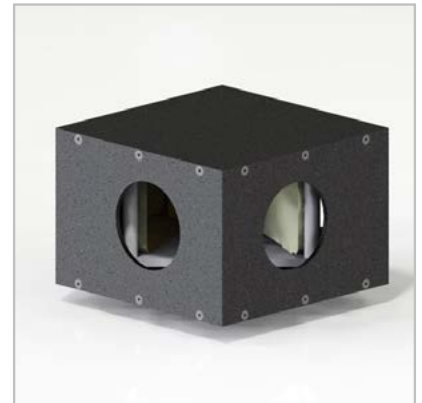
Applications

The HBPM is a powerful and versatile tool for

- surveying,
- laboratory experimentation,
- and a range of metrology applications

Specifications

Optical material	Fused Silica
Housing material	Aluminum
Coating	Visible beamsplitter Protected Aluminum
Wavelength	400 – 700 nm



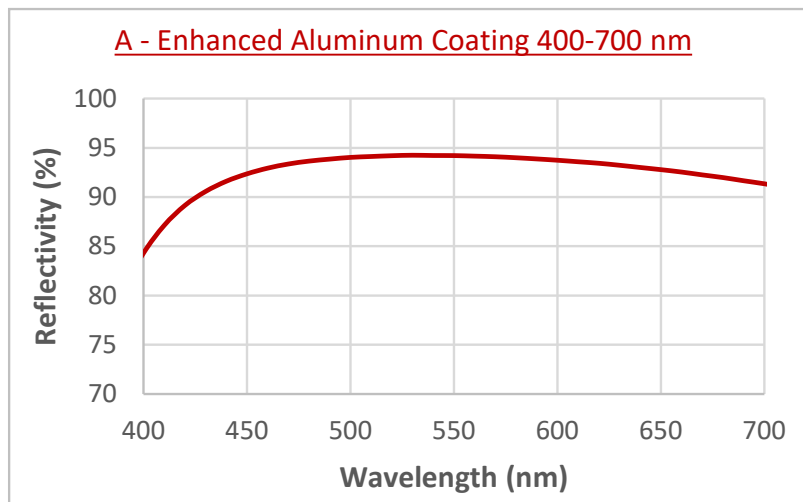
Specification Chart

Model	Clear Aperture (in/mm)	Beam Deviation (arcsec.)	Exiting Wavefront (P.V. 633 nm)	Weight (grams)
HBPM-10	1.0/25	1.0 – 30.0	0.1– 0.5	685
HBPM-20	2.0/51	1.0 – 30.0	0.1– 0.5	1650

Simulations

Coating

- Enhanced Aluminum (400 – 700nm) R_{avg} 93% (AOI 55° per surface reflectance average)



Good to know

The optical elements of the Hollow Beamsplitting Pentamirror assemblies are monolithic structures made of fused silica glass and are mounted in an aluminum enclosure, with a black anodized finish. They are available in 1" and 2" clear aperture, with accuracies to better than 1 arc second.

Standard configuration includes one beamsplitter. Optional configuration with two beamsplitters is available.

For inquiries we need to know:

- Clear aperture
- Beam deviation

Product Code

HBPM

—

Clear Aperture (inch)

—

Beam Deviation (inch)