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500 μm Aperture Diameter, 1" OD Mounted, Precision Pinhole



Unmounted Precision Pinhole



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General

Mounted **Type:**

Physical & Mechanical Properties

25.4 +0.000/-0.05 **Outer Diameter (mm):**

Construction:

Stainless Steel

500 Fixed Aperture Diameter (μm):

0.03 Nominal Thickness (mm):

± 5 Aperture Tolerance (μm):

± 125 Aperture Centration (μm):

Threading & Mounting

2.54 Mount Thickness (mm):

Regulatory Compliance

[Compliant](#) RoHS 2015:

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[Compliant](#) Reach 247:

Product Details

- Available in Aperture Mounts for a Secure Mechanical Support
- Pinhole Sized Ranging from 1 to 1,000 Microns
- [High Power Apertures](#) Available

Unmounted Precision Pinholes

Precision Pinholes are high quality apertures centered to $\pm 0.002"$ (50 microns). They are constructed of stainless steel and are $3/8"$ (9.5mm) in diameter. Smaller diameter pinholes will reduce energy throughput, while larger diameter pinholes will pass more spatial noise. Precision pinholes have sizes ranging from 1 to 1,000 microns. Typical applications include leak detection, aerosol studies, holography, fiber optics guides, spatial filtering, research, and more.

Use the [Precision Pinhole Mount](#) to integrate unmounted pinholes into a variety of mechanical components easily.

Mounted Precision Pinholes

Precision Pinholes are available in aperture mounts for secure mechanical support. The mounts also fit into various optical assemblies. Each 9.5mm diameter pinhole is sealed within a 25mm diameter black-anodized aluminum mount. The mount is clearly labeled with a pinhole aperture diameter for easy identification.

Note: Aperture Centering to Mount ± 125 microns.

Edmund Optics offers a wide selection of precision pinholes for leak detection, aerosol studies, holography, fiber optic guides, spatial filtering, research, and more. These pinholes are available in a range of diameters and are ideal for controlling light propagation. Each pinhole is manufactured using high-accuracy techniques, providing consistent circular aperture geometry and high edge quality. Available in both mounted and unmounted formats, these pinholes support a variety of optical setups, from experimental labs to industrial environments.

Technical Information

