

Mounted metal foil with a pinhole or slit 400μm or less.

Used in spatial filters, laser diffraction experiments and microscopic magnification correction.

- A precision etching process creates holes with high circularity and slits with high parallelism.
- For YAG lasers (1064nm) and CO₂ lasers (10.6μm), pinholes made of high copper coated with gold should be used.
- Pinholes and slits are pre-mounted in aluminum frames for ease of handling and mounting.



Guide

- ▶ Contact our Sales Division to purchase unmounted pinholes or slits.
- ▶ When an aperture φ1mm or above is required, use an iris diaphragm (IH). [Reference](#) C063
- ▶ Custom pinholes can be made to order.

Common Specifications

Part Number	PA	PA-HEL	FSL
Hole Geometry	Perfect circle	Perfect circle	Slit
Pinhole Material	Nickel	Copper	Nickel
Foil Thickness [μm]	20±5	20±5	20±5
Pinhole Finish	None	Gold coat (both faces)	None
Damage Threshold (reference)	—	50MW/cm ² (@700nm)	—
Wavelength Used	Any	700nm – 10.6μm	Any
Frame Material	Aluminum		
Frame Finish	Black Anodized		

Attention

- ▶ Dust can obstruct the light through a pinhole. Use an optic bulb blower to remove the dust. Canned air may break tear the foil.
- ▶ Take care when handling unmounted pinholes. The foil is thin and fragile.
- ▶ The holes and slits are only visible under high magnification.
- ▶ For fixed slits, when the number that represents the width of the slit is at the bottom, the long side of the slit is oriented in the horizontal direction.
- ▶ Pinholes can be damaged if the laser power is higher than the laser damage threshold.



Perfect circle

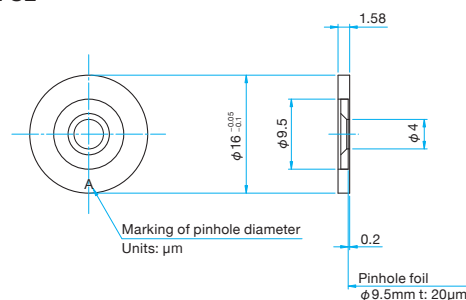
Part Number	Pinhole Diameter [μm]	Weight [kg]
PA-1	φ1 ⁺¹ ₋₀	0.001
PA-2	φ2±1	0.001
PA-5	φ5±2	0.001
PA-10	φ10±2	0.001
PA-15	φ15±2	0.001
PA-20	φ20±2	0.001
PA-25	φ25±3	0.001
PA-30	φ30±3	0.001
PA-40	φ40±3	0.001
PA-50	φ50±4	0.001
PA-100	φ100±5	0.001
PA-200	φ200±6	0.001
PA-400	φ400±8	0.001

Perfect Circle for High Energy Laser

Part Number	Pinhole Diameter [μm]	Weight [kg]
PA-5HEL	φ5±2	0.001
PA-10HEL	φ10±2	0.001
PA-15HEL	φ15±2	0.001
PA-25HEL	φ25±3	0.001
PA-50HEL	φ50±4	0.001
PA-100HEL	φ100±4	0.001
PA-200HEL	φ200±6	0.001

Outline Drawing

PA/FSL



Slit

Part Number	Slit Width [μm]	Length [mm]	Weight [kg]
FSL-5	5±2	3	0.001
FSL-10	10±2	3	0.001
FSL-25	25±3	3	0.001
FSL-50	50±4	3	0.001
FSL-100	100±5	3	0.001
FSL-150	150±5	3	0.001
FSL-200	200±6	3	0.001

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