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 CO_2 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.

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		

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.

Attention

- Dust can obstruct the light through a pinhole. Use and 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.

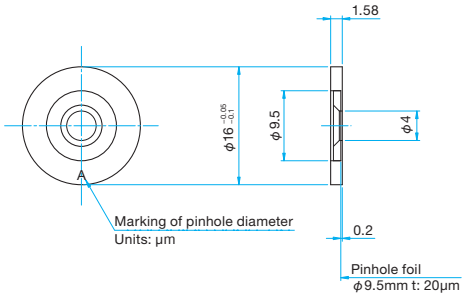
2D CAD 3D CAD

Perfect circle

Part Number	Pinhole Diameter [µm]	Weight [kg]
PA-1	$\phi 1^{+1}_{0}$	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

Outline Drawing

PA/FSL



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

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