

Spatial filters eliminate distorted laser wavefronts and noise to emit clean spherical waves for beams. Used in optical systems such as interferometers and holograms where wavefront quality is critical.



- A well corrected achromat in the output beam of the spatial filter can be used to collimate the filtered beam.
- The translation stage and two-axis pinhole allows the light through the objective lens to have good reproducibility..
- Designed with an emphasis on stability, beam movement during adjustment is minimal.
- A PA-25 (hole diameter 25µm) pinhole is included. Pinholes can be changed to match the diameter of the laser spot.
- A Coarse/fine pinhole adjustment (SFB-16DMRO) is also available.
- To meet a variety of requirements, the mounting position of the objective lens can be changed, allowing objective lenses with different magnifications to be used.

Guide

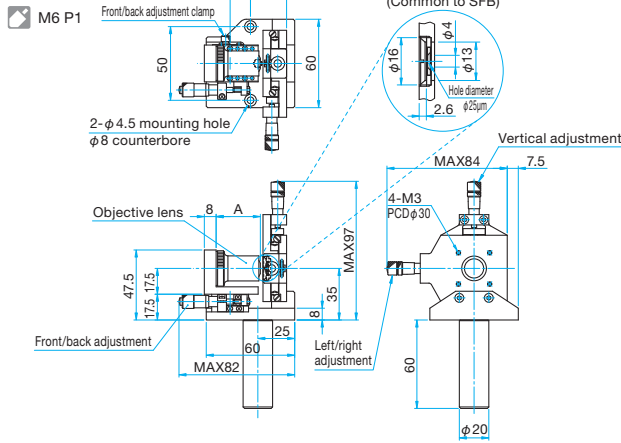
- ▶ SFB-16RO-N and SFB-16DMRO-N, which are postless spatial filters are also available.
- ▶ Pinholes can be replaced with different diameter pinholes. Pinhole diameters can be specified at the time of purchase. When changing pinhole diameter, change the number “-25” at the end of the part number to the desired pinhole size in microns.
- ▶ Post length can be changed by specifying the post length when you place an order. We may charge the difference in price depending on the length. Contact our Sales Division for more information.

Attention

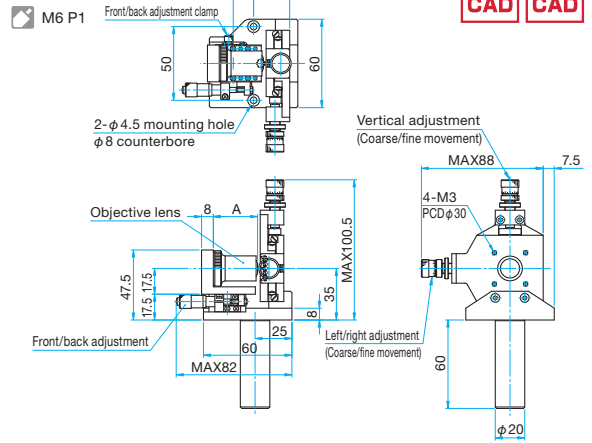
- ▶ The type of objective lens and pin hole diameter depends on laser wavelength and incident beam diameter. [Reference ▶ C059](#)
- ▶ Our Sales Division will gladly help you choose the correct combination also.
- ▶ The unstamped side of the pinhole should touch the retaining ring side. The pinhole wmaybe not work correctly if mounted incorrectly.
- ▶ We do not recommend using spatial filters for high-power lasers, pulsed lasers, or ultraviolet lasers. Lasers in the near infrared region will have poor transmittance.
- ▶ Objectives should be unscrewed before swapping out pinholes.

Outline Drawing

SFB-16RO



SFB-16DMRO



Micrometer									
Primary material: Steel, Aluminum Finish: Super Black Chrome, Black Anodized									
Part Number	Objective Lens	Objective Lens Length A [mm]	Compatible Incidence Beam diameter (1/ε²) [mm]	Pinhole Diameter [µm]	Pinhole XY Adjustment Range [mm]	Objective Lens Front and Back Adjustment Range [mm]	Pinhole XY Scale MIN Reading [mm/DIV]	Objective Lens Front and Back Scale MIN Reading [mm/DIV]	Weight [kg]
SFB-16RO-OBL10-25	OBL-10	30.5	φ1.0	φ25	±2	±3	0.01	0.01	0.56
SFB-16RO-OBL20-25	OBL-20	35.2	φ0.6	φ25	±2	±3	0.01	0.01	0.56
SFB-16RO-OBL40-25	OBL-40	36.4	φ0.3	φ25	±2	±3	0.01	0.01	0.56

Coarse/Fine Movement										
Primary material: Steel, Aluminum Finish: Super Black Chrome, Black Anodized										
Part Number	Objective Lens	Objective Lens Length A [mm]	Compatible Incidence Beam Diameter (1/ε²) [mm]	Pinhole Diameter [µm]	Pinhole XY Adjustment Range [mm]	Objective Lens Front and Back Adjustment Range [mm]	Pinhole XY Coarse Resolution [mm/rotation]	Pinhole XY Scale MIN Reading [mm/DIV]	Objective Lens Front and Back Scale MIN Reading [mm/DIV]	Weight [kg]
SFB-16DMRO-OBL10-25	OBL-10	30.5	φ1.0	φ25	±2	±3	0.5	0.0025	0.01	0.6
SFB-16DMRO-OBL20-25	OBL-20	35.2	φ0.6	φ25	±2	±3	0.5	0.0025	0.01	0.6
SFB-16DMRO-OBL40-25	OBL-40	36.4	φ0.3	φ25	±2	±3	0.5	0.0025	0.01	0.6

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

MotORIZED Stages

Light Sources & Laser Safety

Index

Guide

Mirrors

Lenses

Prisms

Polarizers

Lasers

Beam Shaping Diffusers

Filters

Shutter

Others

Fiber