

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

The Kinematic Center Mount is designed to allow the mirror to be loaded from the rear, keeping the reflective front surface centered above the mounting hole.

- When this mount is rotated 45 degrees on an optical bench, the center of mirror will stay at the optical axis.
- Cutouts and bevels allow these to be used as beamsplitter holders and not interfere with the transmitted beam.
- Building the mirror frame into the support of the holder keeps the mount thin with a small footprint.
- The small footprint allows more room to access the adjusters compared to regular kinematic mirror holders.
- Includes alignment pin holes to accurately place mount in OEM instruments ($\phi 3H7$ except MHI-12.7, which is $\phi 2H7$).



Guide

- ▶ Vertical control gimbal mirror and beamsplitter holders (BSHL) where the rotation of the fine adjustment matches the mirror center are also available. [Reference](#) C022
- ▶ Can be mounted using an M4 low head screw to secure them from the top or an M6 threaded post from the bottom. (MHI-12.7 can be mounted with an M3 low head screw from the top and M4 threaded post from the bottom.)

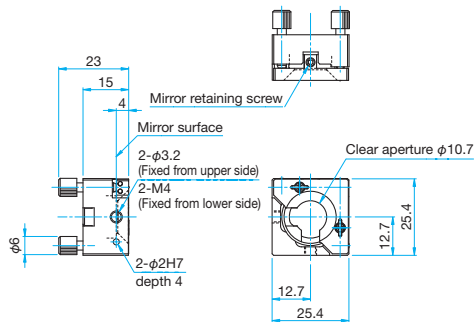
Attention

- ▶ MHI-12.7 limits the tilt and rotation to be $\pm 1^\circ$ and $\pm 2^\circ$ respectively, even when a low and small head hexagon socket head cap screw is used.
- ▶ When securing a mirror with a low head hexagon socket head cap screw, a hex wrench may interfere with the mirror. Please retract the mirror by turning the rotation and tilt adjustment screws before tightening the low head hexagon socket head cap screw.
- ▶ When securing a mirror on a baseplate with a M4 low head hexagon socket head cap screw, there will be ± 1 mm clearance.

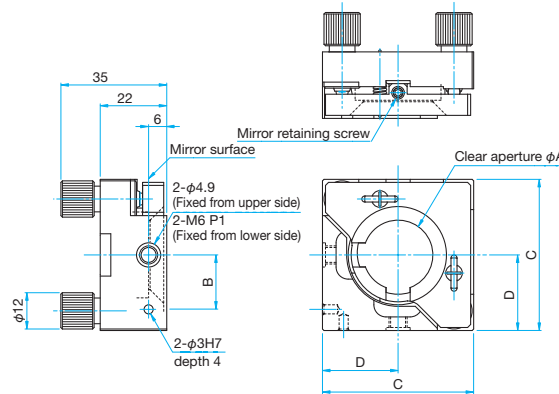


Outline Drawing

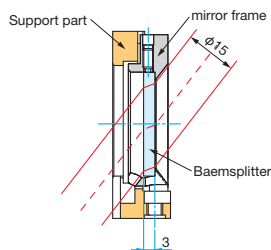
MHI-12.7 Low head hexagon socket head cap screw M3x6...1 screw



MHI-25.4/30 Low head hexagon socket head cap screw M4x8...1 screw



Cross-section view of MHI-30



Part Number	B (mm)	C (mm)	D (mm)
MHI-25.4	18	50	25
MHI-30	20	55	27.5

Specifications											Primary material: Aluminum (Brass only for MHI-12.7) Finish: Black Anodized (Chrome only for MHI-12.7)
Part Number	Options specified*1	Compatible Optics Diameter [mm]	Compatible Optics Thickness [mm]	Clear aperture ϕA [mm]	Reflected Beam Clear Aperture (45° incidence) [mm]	Transmitted Beam Clear Aperture (45° incidence)*2 [mm]	Adjustment Range		Resolution		Weight [kg]
							Tilt [°]	Rotation [°]	Tilt [°/rotation]	Rotation [°/rotation]	
MHI-12.7	—	$\phi 12.7$	2 - 9	$\phi 10.7$	$\phi 6.8$	$\phi 5$	± 3	± 3	about 0.74	about 0.74	0.05
MHI-25.4	UU	$\phi 25, \phi 25.4$	3 - 10	$\phi 23$	$\phi 15.5$	$\phi 13$	± 1.5	± 1.5	about 0.4	about 0.4	0.12
MHI-30	UU	$\phi 30$	3 - 10	$\phi 27$	$\phi 18.3$	$\phi 15$	± 1.5	± 1.5	about 0.35	about 0.35	0.13

*1 For specifying options, please refer to "Conversion of Posts, Post Holders and Pedestal Bases of Holders". [Reference](#) C007
*2 When light is transmitted through a BK7 plane parallel substrate of 3mm thickness.