

NOMI LOCK™ is the new locking mechanism from OptoSigma. It can adjust the torque of the adjustment screws and lock down the screws with negligible shift. It is best suited for use in interferometers or laser processing devices where beam displacement can cause issues.

NOMI LOCK™ is a registered trademark of SIGMA KOKI CO., Ltd.

- Kinematic mirror holders have excellent rigidity and stability. These qualities make them perfect for use in interferometers and laser resonators.
- There are two types of mirror holders, a high stability model (MHG-HS) and a production model (MHG-MP).
- The MHG-HS high stability model is fitted with large adjustment knobs. These knobs allow for movement in the vertical direction as well making it a 3 axis mount.
- NOMI LOCK™ will have a single fringe displaced in the optical axis when used in interferometers. (There are individual differences in the operation of the lock.)
- Three point fixation of the mirrors reduce the stress caused by mounting greatly.
- These holders have a large aperture for reflective or transmitted light. The retaining rings to not reduce the clear aperture.



Guide

- ▶ This product can be mounted on pedestal stands (PST: optional) or posts with an M6 external thread (RO: optional).
- ▶ Production model (MHG-MP) can be fixed directly on plates or stages with M4 screws.
- ▶ Production model (MHG-MP) comes with a special wrench for NOMI LOCK™.

Attention

- ▶ The rotation center of the production model (MHG-MP) is outside the mirror (fulcrum of holder).
- ▶ To mount the high stability model (MHG-HS) on a flat surface, use the plates for mounting posts (MHG-**BPRO). [Reference](#) C016
- ▶ When the plates for mounting posts (MHG-**BPRO) are used, the optical axis will move 10mm upward.
- ▶ The back surface of the mirror is the reference surface when the mirror is mounted in the holder. Due to this condition, the location of the front surface will vary with the thickness of the mirror.

NOMI LOCK™ Adjustment Method

	Control Method Lock knob Adjustment screw	Interference Fringe Image (Image)	
(1) Free			Loosening the knob allows for easy movement of the adjustment screw.
(2) Half lock			Tightening the locking knob about 30 degrees to make fine adjustments where this is just a little resistance in the adjustment screw. (When changing from free to half-lock, the interference fringe changes greatly.)
(3) Lock			Tightening the locking knob all the way so that it will not move. When changing from half-lock to lock, the interference fringe only changes by about 1 fringe.

Specifications

Part Number	Options specified*	Compatible Optics Diameter [mm]	Compatible Optics Thickness [mm]	Number of Adjustment Axes [mm]	Adjustment Range		Resolution Rotation [°/rotation]	Resolution Tilt [°/rotation]	Weight [kg]
					Tilt [°]	Rotation [°]			
MHG-MP12.7-NL	—	φ12.7	3 – 5	3	±3	±3	about 0.74	about 0.74	0.04
MHG-MP20-NL	UU	φ20	3 – 5	2	±3	±3	about 0.39	about 0.39	0.12
MHG-HS20-NL	UU	φ20	3 – 5	3	±3	±3	about 0.39	about 0.39	0.12
MHG-MP25-NL	UU	φ25, φ25.4	3 – 5	2	±3	±3	about 0.39	about 0.39	0.12
MHG-HS25-NL	UU	φ25, φ25.4	3 – 5	3	±3	±3	about 0.39	about 0.39	0.12
MHG-MP30-NL	UU	φ30	3 – 5	2	±3	±3	about 0.39	about 0.39	0.12
MHG-HS30-NL	UU	φ30	3 – 5	3	±3	±3	about 0.39	about 0.39	0.12
MHG-MP50-NL	UU	φ50	5 – 8	2	±2	±2	about 0.26	about 0.26	0.24
MHG-MP50.8-NL	UU	φ50.8	5 – 8	2	±2	±2	about 0.26	about 0.26	0.24
MHG-MP80-NL	UU	φ80	7 – 12	2	±2	±2	about 0.18	about 0.18	0.38
MHG-MP100-NL	UU	φ100, φ101.6	10 – 15	2	±2	±2	about 0.13	about 0.13	0.56

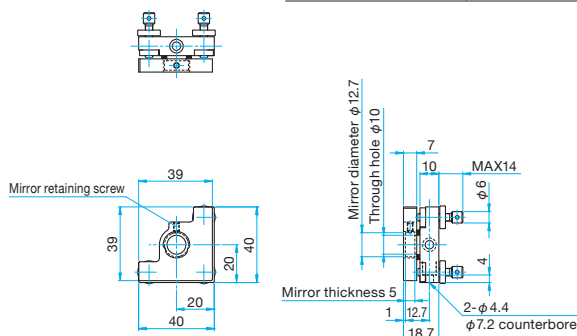
* For specifying options, please refer to "Conversion of Posts, Post Holders and Pedestal Bases of Holders". [Reference](#) C007

Outline Drawing

MHG-MP12.7-NL

 Hexagonal socket head cap screw M4x8...1 screw
Spanner for lock knob...1 screw

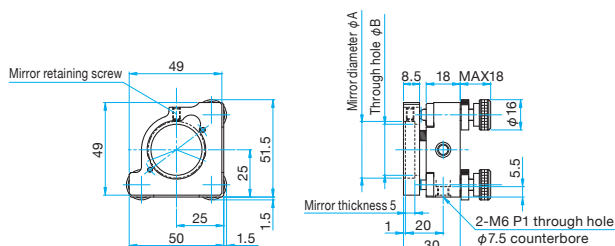
Part Number	Mirror Diameter (mm)
MHG-MP12.7-NL	$\phi 12.7$



MHG-HS20-NL/25-NL/30-NL

Hexagonal socket head cap screw M4x10...1 screw
Spanner for lock knob...1 screw

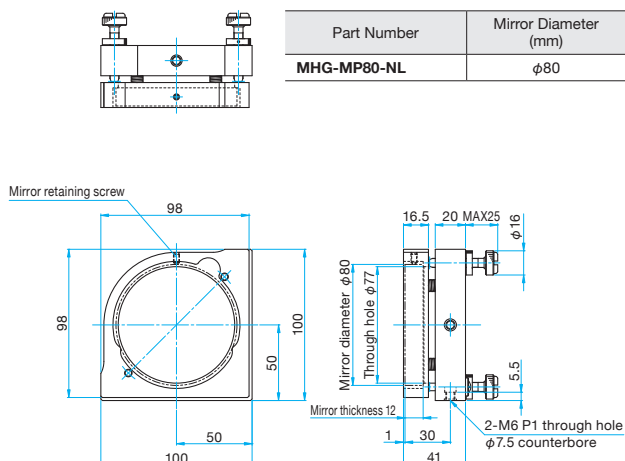
Part Number	Mirror Diameter φA (mm)	Through hole φB (mm)
MHG-HS20-NL	φ20	φ17
MHG-HS25-NL	φ25, φ25.4	φ22
MHG-HS30-NL	φ30	φ27



MHG-MP80-NL

 Hexagonal socket head cap screw M4x10...1 screw
Spanner for lock knob...1 screw

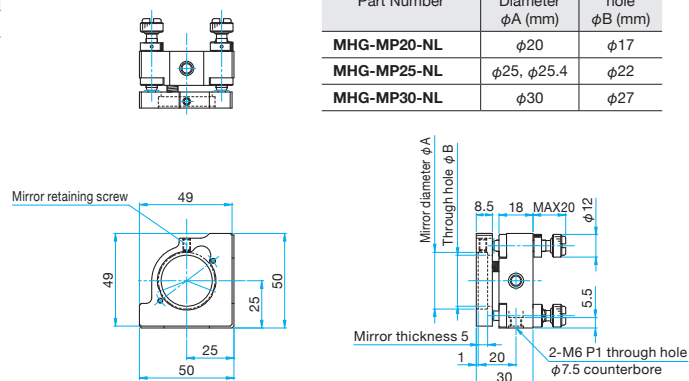
Part Number	Mirror Diameter (mm)
MHG-MP80-NL	$\phi 80$



MHG-MP20-NL/25-NL/30-NL

Hexagonal socket head cap screw M4x10...1 screw
Spanner for lock knob...1 screw

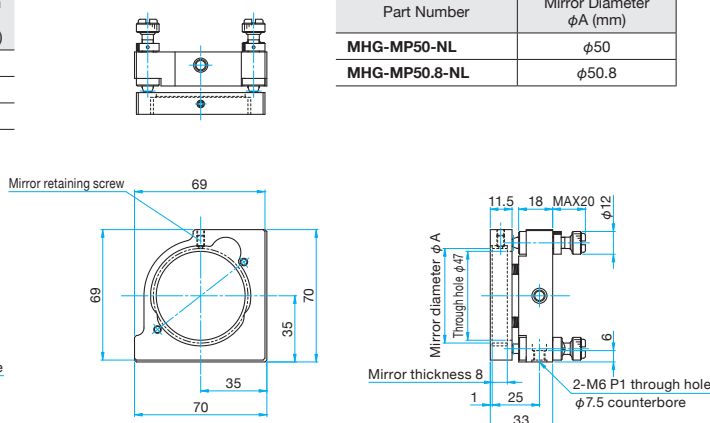
Part Number	Mirror Diameter ϕA (mm)	Through hole ϕB (mm)
MHG-MP20-NL	$\phi 20$	$\phi 17$
MHG-MP25-NL	$\phi 25, \phi 25.4$	$\phi 22$
MHG-MP30-NL	$\phi 30$	$\phi 27$



MHG-MP50-NL/50.8-NL

 Hexagonal socket head cap screw M4x10...1 screw
Spanner for lock knob...1 screw

Part Number	Mirror Diameter ϕA (mm)
MHG-MP50-NL	$\phi 50$
MHG-MP50.8-NL	$\phi 50.8$



MHG-MP100-NL

 Hexagonal socket head cap screw M4x12...3 screws
Spanner for lock knob...1 screw

Part Number	Mirror Diameter (mm)
MHG-MP100-NL	φ100, φ101.6

