

# Piezo Optical Mounts

AGILIS™ SERIES



The Agilis Piezo Optical Mounts are high precision optical mounts featuring Newport's proprietary non-resonant Agilis piezo motor. With outstanding adjustment sensitivity, convenient programmable operation, and compact design, Agilis optical mounts provide robust motion performance.

## Outstanding Adjustment Sensitivity

The Agilis proprietary piezo technology provides 50 nm incremental motion capability, translating to resolutions as small as 1  $\mu$ rad, making them ideal for ultra-sensitive alignments and optical adjustments.



## Set-and-Forget Long-Term Stability

The Agilis piezo motors are directly coupled to the moving optics holder for robust and predictable performance. When idle, the motor spring force locks the mirror in place, providing true set and forget stability. Agilis mounts also have a fast adjustment speed and are free of issues associated with backlash or hysteresis.

## Limit Switch Versions

The Agilis Piezo Optical Mounts are available with precision electrical limit switches for repeatable absolute positioning without the need for encoder feedback. This is accomplished by measuring the average step size from the left to the right travel limits and vice-versa. Under constant conditions, the step size is fairly repeatable.

- Outstanding adjustment sensitivity
- Set-and-forget long-term stability
- Limit switch versions
- Closed loop versions with integrated encoder
- Ultra-compact

## Integrated Linear Encoder Versions

Available with an absolute angle position sensor, the CONEX-AG-M100D delivers 0.001° closed-loop minimum incremental motion and 0.01° bi-directional repeatability. The absolute position sensor not only provides highly repeatable positioning, but also enables the recovery of a previously-saved position.

## SPECIFICATIONS

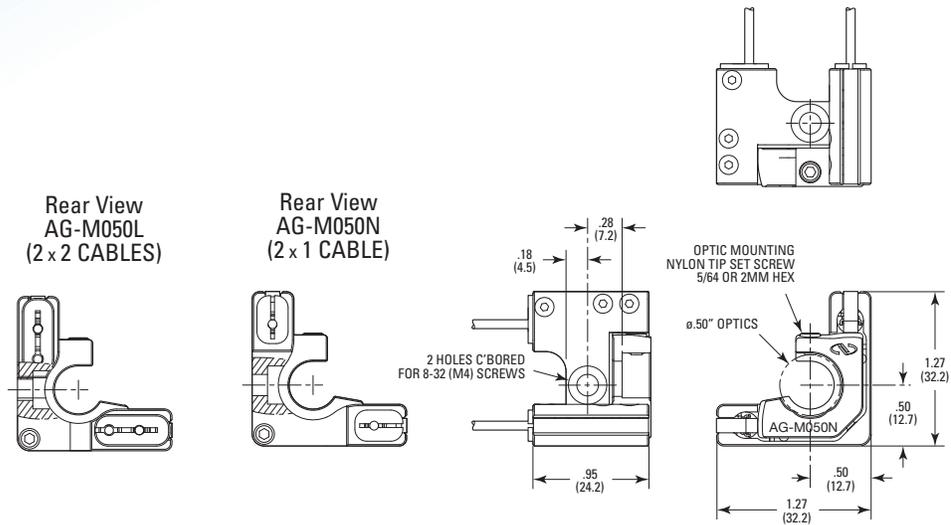
	AG-M050	AG-M100
Optics diameter	0.5 in (12.7 mm)	1.0 in (25.4 mm)
Allowable thickness of optics	0.16 to 0.24 in. (4 to 6 mm)	0.16 to 0.24 in. (4 to 6 mm)
Angular range	$\pm 2^\circ$	$\pm 2^\circ$
Adjustment sensitivity	2 $\mu$ rad	1 $\mu$ rad
Absolute positioning		
Accuracy/Repeatability <sup>(1)(2)</sup>	0.05°	0.05°
Weight	25 g	85 g
Cable length	1.2 m length, 4-wire mini-DIN connector. Can extend cable length using AG-MD4-1.5 extension cable.	

<sup>1)</sup> Max. position deviation before an MA command (measure absolute current position) and after a PA command (move to absolute position).

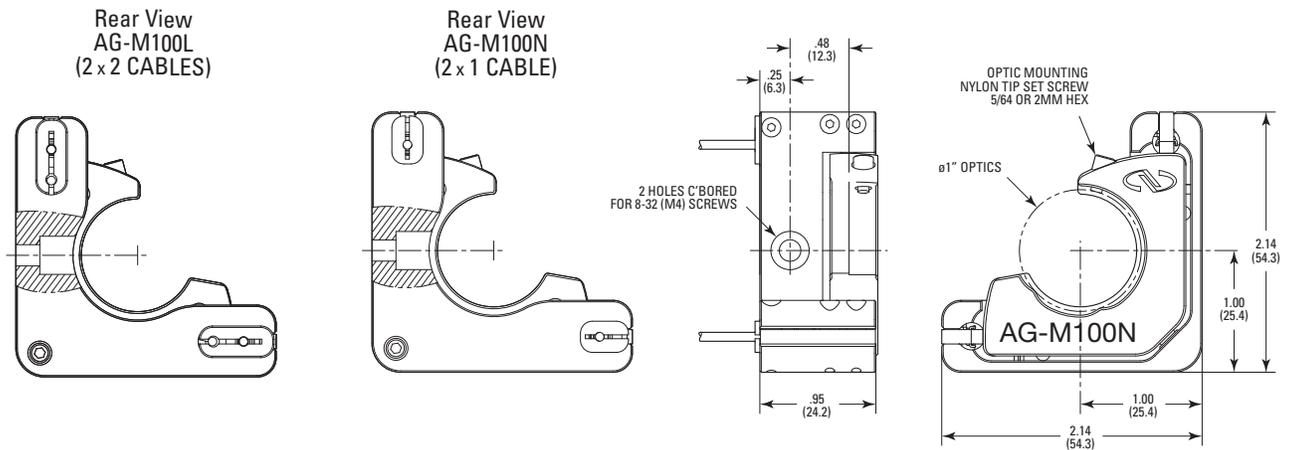
<sup>2)</sup> Available with models AG-M050L(V6) and AG-M100L(V6) only.

DIMENSIONS

Models AG-M050



Models AG-M100



ORDERING INFORMATION

Model	Description
AG-M050L	Agilis mount with limit switches, 0.5-inch (12.7 mm)
AG-M050LV6	Agilis mount with limit switches, 0.5-inch (12.7 mm), vacuum compatible to 10 <sup>-6</sup> hPa
AG-M050N	Agilis mount, 0.5-inch (12.7 mm)
AG-M050NV6	Agilis mount, 0.5-inch (12.7 mm), vacuum compatible to 10 <sup>-6</sup> hPa
AG-M100L	Agilis mount with limit switches, 1.0-inch (25.4 mm)
AG-M100LV6	Agilis mount with limit switches, 1.0-inch (25.4 mm), vacuum compatible to 10 <sup>-6</sup> hPa
AG-M100N	Agilis mount, 1.0-inch (25.4 mm)
AG-M100NV6	Agilis mount, 1.0-inch (25.4 mm), vacuum compatible to 10 <sup>-6</sup> hPa

ACCESSORIES

Model	Description
AG-UC8PC	8 Axis OEM Agilis Piezo Controller, USB/RS232/RS485
AG-UC2	Compact Piezo Motor Controller, 2 Axis, Hand-held
AG-UC8	Compact Piezo Motor Controller, 8 Axis
AG-MD4-1.2	Agilis Extension Cable, 1.2 m, 4-wire mini-DIN connector



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