

CONEX-AG-M100D

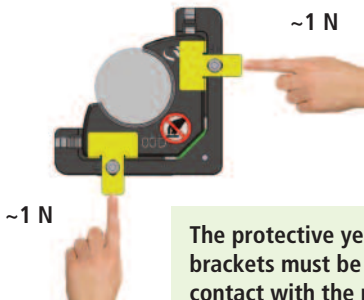


CAUTION

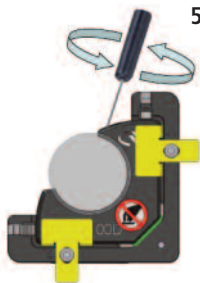
The warranty does not cover damage resulting from improper handling.

Mirror Installation

Using



The protective yellow shipping brackets must be set in contact with the mobile part of the mirror mount before locking to the base.



50 mN.m max.

Shipping brackets must stay during the mirror set up.

Do not apply excessive torque on the shipping brackets.

To remove or replace the mirror, secure the shipping brackets prior to handling the mobile part of the mount.

Do not apply forces shown below as excessive forces can ruin the sensor.

5 N max.



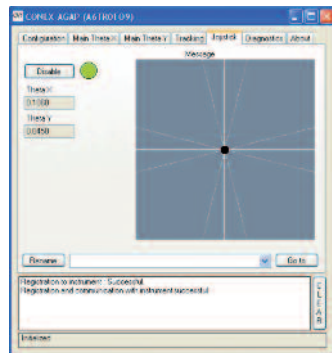
Once the shipping brackets are removed, only handle by the mirror mount base.



5 N max.

Do not apply excessive force on the mobile part of the mirror mount. The sensor is fragile and will be destroyed by such an action.

Compact Bidirectional ABSOLUTE POSITIONING Mirror Mount



The CONEX-AG-M100D is a piezo motor actuated mirror mount with an integrated controller/driver for 1" diameter optics (0.5" diameter with the UPA1-0.5 adapter). For out-of-the box control, the CONEX-AGAP controller is preconfigured and delivered with an Agilis AG-M100D mirror mount with a built-in, pan and tilt, absolute angular position sensor.

The AG-M100D mirror mount can either be fastened on a pedestal post of the M-PS Series or a fixing washer, supplied.

The CONEX-AGAP is a very compact and inexpensive dual axis motion controller with the same driver as the proven Agilis AG-UC2 2-axis driver. In addition, the CONEX-AGAP includes a closed-loop algorithm to achieve high angular repeatability of mirror positioning. The controller comes with the familiar CONEX GUI / NSTRUCT, simple and intuitive to use and conveniently accessible via USB, which also supplies power to the controller.

An outstanding absolute position closed loop adjustment capability

The CONEX-AG-M100D mirror mount features an innovative, miniature, absolute position sensor. With a footprint similar to other Agilis mirror mounts, it offers an angular positioning repeatability within a few millidegrees, even after a system reset.

This position recovery capability is a key feature of this product: the CONEX-AGAP closed-loop algorithm, combined with the absolute position sensor, provides a system repeatability of 0.01°.

Fine adjustment performance

Like its controller, the mirror mount is very compact, but is capable of $\pm 0.75^\circ$ travel on both axes with an angular open loop adjustment sensitivity better than 2 μ rad which comes directly out of the box running the easy to use GUI.

Stability

When adjusted, the angular stability of the AG-M100D absolute position mirror mount is the same as an ULTIMA mirror mount. The thermal stability of the AG-M100D is in the range of 5 μ rad/°C.

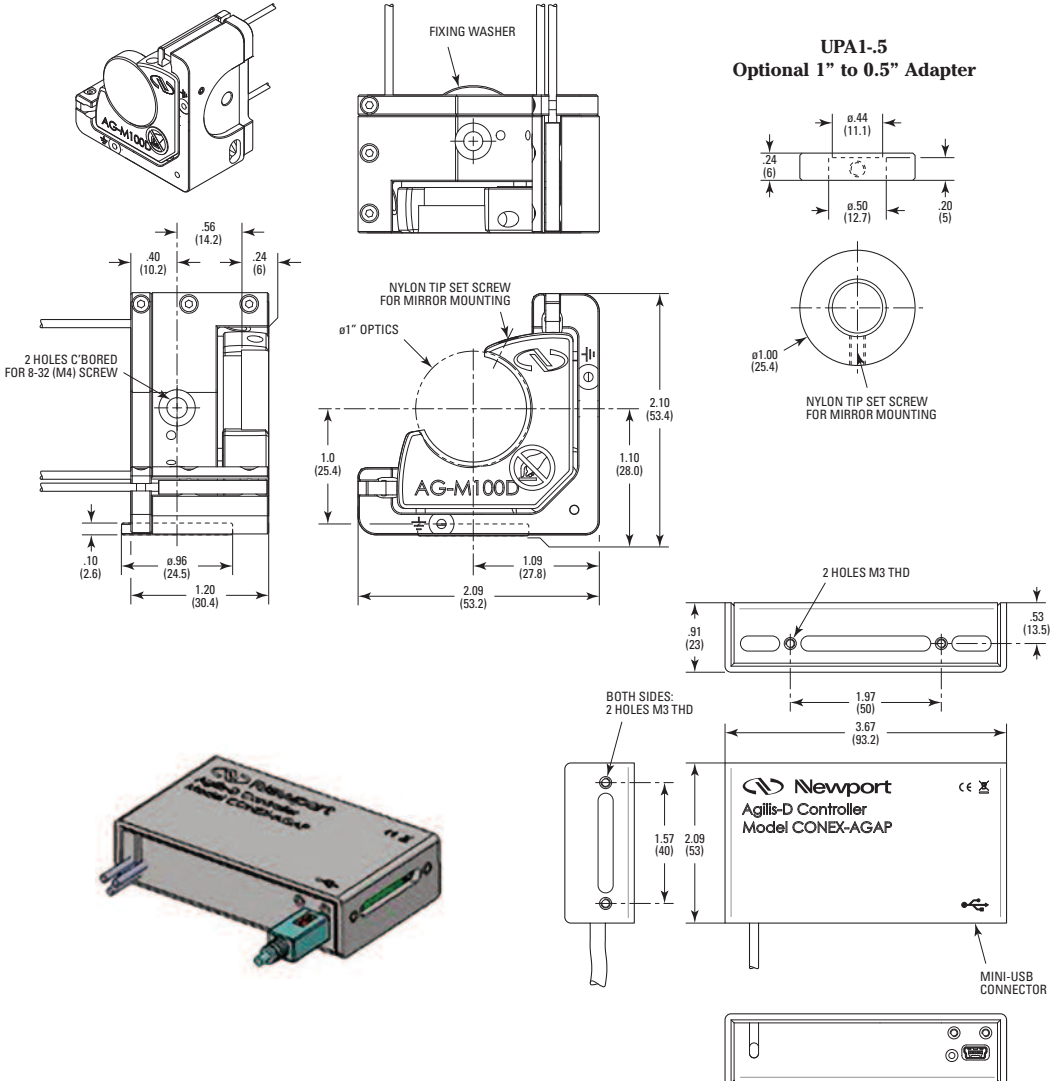
Stage Specifications

Dual axis travel range	±0.75°
Closed-loop MIM	0.001°
Open-loop MIM	2 μrad
Bi-directional repeatability	0.01°
Maximum speed	>0.4 °/s
Thermal stability	5 μrad/°C

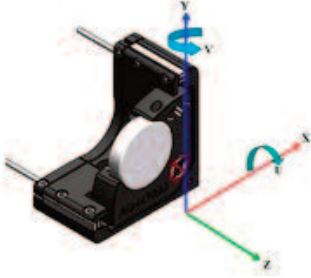
NOTE

Refer to the CONEX-AGAP manual for instructions on closed-loop and open-loop operations.

Dimensions



Axis Convention



Shipping Spacer

Shipping wedges are delivered with the AG-M100D mirror mount for transportation and handling. It is recommended to keep them in place until the mirror is installed.

These wedges lock the mobile part of the mirror mount against mechanical limit stops, travel $U(\theta_x) = V(\theta_y) \approx 1^\circ$.

Proper Working Conditions

Do not apply additional loads to the sensor other than the normal optics payload of 15 grams max.



- Never apply force on the moving part.
- Isolate from shock, vibration or excessive acceleration.
- Operating Temperature: 15 to 35 °C.

EU Declaration of Conformity

Please refer to the “CONEX-AGP - Introduction, Safety & Service” manual supplied on the CD-ROM to have a complete description of the EU Declaration of Conformity.



NOTE

This product complies with the RoHS directive (Restriction of Hazardous Substances).

Visit Newport Online at:
www.newport.com

 **Newport®**

 **mks**

North America & Asia

Newport Corporation
1791 Deere Ave.
Irvine, CA 92606, USA

Sales

Tel.: (800) 222-6440
e-mail: sales@newport.com

Technical Support

Tel.: (800) 222-6440
e-mail: tech@newport.com

Service, RMAs & Returns

Tel.: (800) 222-6440
e-mail: service@newport.com

Europe

MICRO-CONTROLE Spectra-Physics S.A.S
9, rue du Bois Sauvage
91055 Évry CEDEX
France

Sales & Technical Support

Tel.: +33 (0)1.60.91.68.68
e-mail: france@newport.com

Service & Returns

Tel.: +33 (0)2.38.40.51.55