Compact Bi-Directional Absolute Positioning Mirror Mount

The CONEX-AG-M100D is a piezo motor actuated absolute positioning mirror mount with a dedicated closed-loop controller/driver. 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, 2-axis, absolute, angular position sensor.

High Angular Stability

At the desired position, the angular stability of the AG-M100D absolute position mirror mount is the same as an ULTIMA mirror mount. Its thermal stability is in the range of 5 µradians/°C.

Closed Loop Absolute Position Adjustment Capability

This mirror mount features an innovative miniature absolute position sensor. Within a footprint similar to the 1inch mirror mount of the Agilis family, it offers an angular positioning capability of 0.001°, even after a system reset. This position recovery capability is a key feature of this the CONEX-AGAP and the combination of the closed-loop algorithm with the absolute position sensor, it provides bi-directional repeatability of 0.01°.

Fine Adjustment Performance

Like its controller, the mirror mount is very compact, but is capable of ±0.75° travel on both axes with an angular opened loop adjustment sensitivity better than 2 µrad. For closed loop positioning, the MIM is 0.001°.

Specifications

- Very compact size
- Repeatable positioning
- Recoverable position
- Set-and-forget long-term stability

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

GUI for 2-axis positioning.
## P O S I T I O N I N G  M I R R O R  M O U N T

**Ordering Information**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONEX-AG-M100D</td>
<td>Piezo Motor Mirror Mount, Absolute Positioning, Integrated Controller</td>
</tr>
</tbody>
</table>

**Accessories**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPA1-5</td>
<td>Mirror Mount Adapter, 25.4 mm to 12.7 mm Diameter, For Ultima</td>
</tr>
</tbody>
</table>

**Dimensions**

**NYLON TIP SET SCREW FOR MIRROR MOUNTING**

**MINI-USB CONNECTOR**

**CONEX-AG-M100D Model CONEX-AGAP**

**FIXING WASHER**

**2 HOLES C’BORED FOR 8-32 (M4) SCREW**

**MINI-USB CONNECTOR**

**CONEX-AG-M100D _D SE (11/17)**

---

Newport Corporation, Irvine, California is DNV certified.