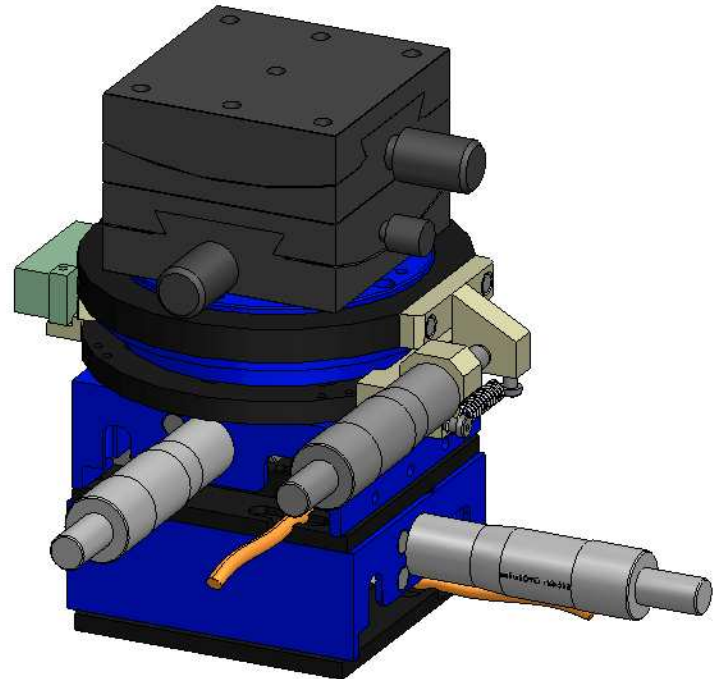


## Precision Micro-Stages

**ALIO Industries designs and manufactures production quality precision motorized stages for demanding nano-position applications.** These same high quality precision stages are now available with manual micrometers for low cost product and process development. These stages were specifically designed to enhance the development and manufacturing of advanced photonics assemblies or applications where precision alignments are necessary. The Micro-Stages have an optional optical encoder for digital feedback. The stages can also be upgraded with motors and nano-resolution optical encoders to full production automation, providing an equipment migration path from the laboratory to the production floor.



### **5-Axis Micro-Stage Assembly**

(manual configuration with optical encoders shown)

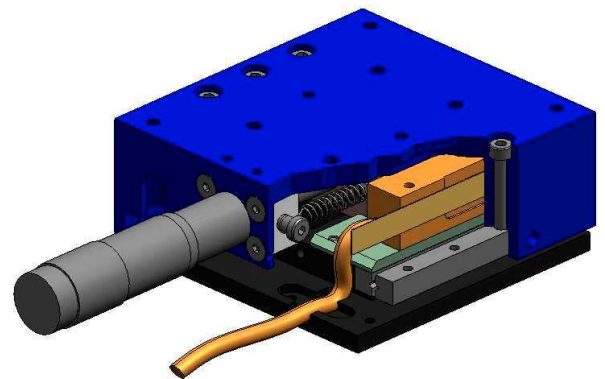
### **Features/Benefits**

#### **Flexibility:**

- Modular design allows for any multi-axis configuration.
- Linear, rotary and vertical stages for application specific kinematics.
- Optional digital encoders for digital feedback.
- Manual stages can be upgraded from fully manual to full production automation with the addition of servo motors and linear encoders.

#### **Price and Performance:**

- Low cost manual stages for product and process development.
- Linear piezo servo motors and linear optical encoders allow for easy automation within the same physical size.
- Rigid stage design using precision crossed roller bearings assure high accuracy and exceptional repeatability.
- Precision 6061 Aluminum enclosures.

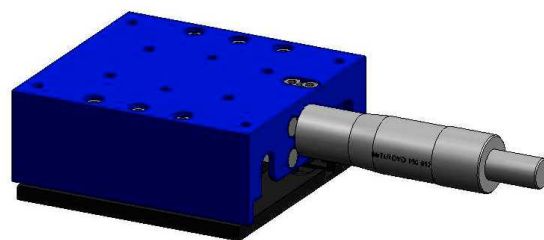


### **24mm Micro-Stage with Encoder**

(cutaway view showing optical encoder option)

## Linear Micro-Stage Specifications

Model	AI-800 ME	AI-2400 ME	AI-5000 ME
Dimensions (mm)	80/80/34	80/80/34	106/80/34
Stroke	8mm	24mm	50mm
Manual Resolution	20nm	10um	10um
Capacity	10kg	10kg	10kg

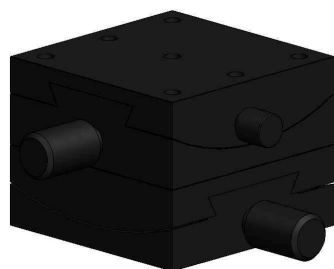


### Optional:

Renishaw optical encoders with analog 1VP-P for controller interpolation.

Renishaw interpolators for 10nm, 20nm, 50nm, 100nm, 500nm, 1um and 5 um.

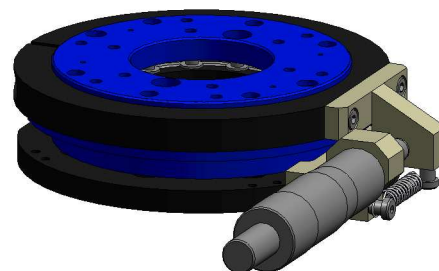
## Goniometric Micro-Stage Specifications



Model	AI-65050 GM	AI-65076 GM	AI-65100 GM
Dimensions (mm)	65/65/26	65/65/24	65/65/24
Stroke	40 deg	30 deg	20 deg
Manual Resolution	5 arc-min	5 arc-min	5 arc-min
Surface to Point of Rotation	50mm	76mm	100mm
Capacity	5kg	5kg	5kg

## Rotary Micro-Stage Specifications

Model	AI-80 RM
Dimensions	100mm Dia x 28mm Ht.
Table Top Dimension	80mm Dia
Rotary Axis Center	38mm Dia
Stroke	20 deg
Manual Resolution	20 arc-sec
Capacity	10kg (min)



### Optional:

Renishaw optical encoders with analog 1VP-P for controller interpolation.

Renishaw interpolators for angular resolution below 1 arc-sec

### Standard Features:

- Micrometer driven stages
- Designed for automation upgrades
- Ultra-precision crossed roller bearings
- 6061 Aluminum enclosures

### Optional Features:

- High resolution non-contact optical linear encoders
- Stainless Steel enclosures
- Class 100 Clean Room compatible
- Custom designed stages for OEM integration



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