

Motorized objective lens positioners designed for accuracy and repeatability using technology developed for our precision motorized stages.

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & Laser Safety

Index

Microscope Unit

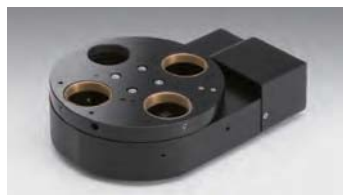
Alignment

Interferometers

Inspection/Observation

Bio-photonics

Laser Processing



<Motorized Lens Turret: LACR-4H>

- Motorized turret has better accuracy and durability than traditional turrets due to elimination of mechanical detents.
- Includes 5-phase micro stepping motor and can achieve a resolution of less than a micron at the tip of objective lens.
- When used with the GIP-101 controller, objectives can be switched quickly and accurately either manually, using the push buttons on the controller, or automatically, using the computer interface.



<Lens switching slider: LACS-2H-A>

- Motorized lens switcher is designed to hold 2 objective lenses, to provide precise movements and feasible speed.
- Using our proprietary extended contact bearing design to improve straightness.

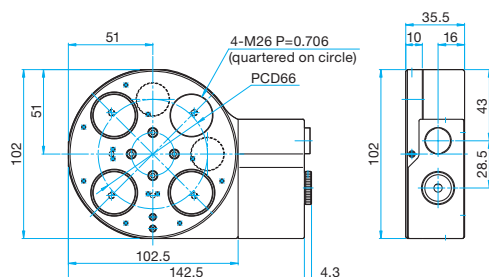
Specifications

| Part Number | LACR-4H | LACS-2H-A |
|--------------------------------|--|--|
| Number of switched lens | 4 holes (90°×4) (1hole: datum hole, 3holes: one-directional center core adjustment) | 2 holes (1hole: datum hole, 1holes: one-directional center core adjustment) |
| Travel | ∞ for both of clockwise and anticlockwise directions | 35mm (Switching distance) |
| Motor | 5-phase stepping motor (0.75A/phase) | 5-phase stepping motor (0.75A/phase) |
| Guide Method | Bearing system | Extended contact bearing |
| Feeding Mechanism | Worm and worm wheel | Ball screw $\phi 4$ (1mm lead) |
| Travel per 1 pulse | 0.01° (FULL) / 0.0002° (1/50 DIV) | 2 μ m (FULL) / 0.1 μ m (20 divided) |
| Total pulse per table rotation | 36,000 pulse (FULL) | — |
| Positional repeatability | ≤ 0.02 deg. | — |
| Switching reproducibility | $\leq \pm 3\mu$ m (at the tip of objective lens) | $\leq \pm 3\mu$ m (by the tip of objective lens) |
| Maximum travel speed (switch) | 60°/sec (A \rightarrow B, about 2.0sec) | 35mm/sec (A \rightarrow B, about 1.0sec) |
| Objective lens size | M26 P=0.706 | M26 P=0.706 |
| Load capacity [kg] | 2 | 2 |
| Weight [kg] | 0.85 | 0.7 |

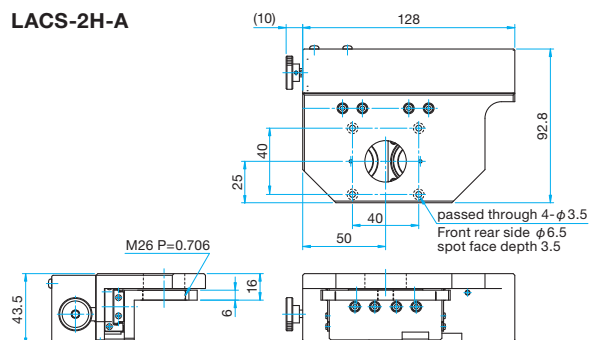
Outline Drawing

(in mm)

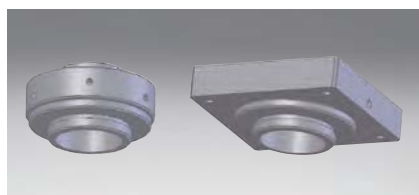
LACR-4H



LACS-2H-A



Adapter | AOR-M26.0/AOS-M26.0

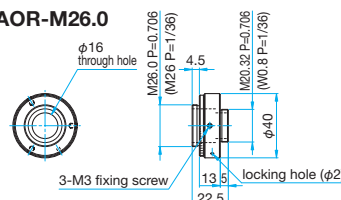


This adapter is for connecting the lens positioners (electric revolver/lens switching slider) to OUCI family microscope bodies .

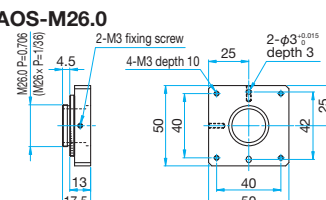
Outline Drawing

(in mm)

AOR-M26.0



AOS-M26.0



Specifications

| Part Number | AOR-M26.0 | AOS-M26.0 |
|-------------------|-----------------------|-----------------------|
| Compatible models | Motorized Lens Turret | Lens switching slider |
| Weight [kg] | 0.1 | 0.08 |

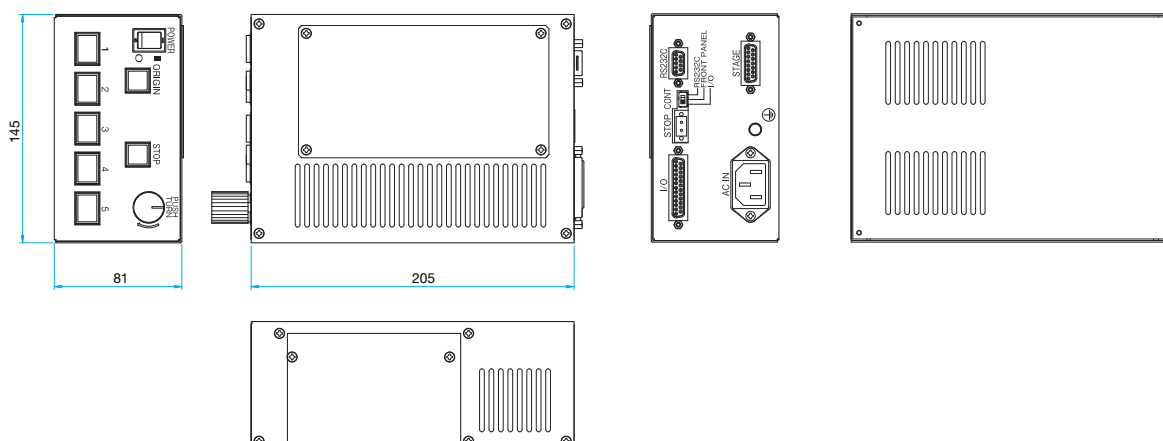
A single axis controller with built-in micro-step driver having a 5-point preset function.

- Compatible with objective lens turrets and other LASER accessory units in addition to motorized stages fitted with 5-phase stepping motor.



| Specifications | |
|-------------------------------------|--|
| Part Number | GIP-101 |
| Model | 5 Phase Stepping Motor |
| Motor | 0.23 – 0.75 A/phase (Stop Current) |
| Excitation Method | Micro-step (16 divisions setting of 1 – 250) |
| Maximum Operating Pulse Rate | 22,000 |
| Minimum Operating Pulse Rate | 50 |
| Acceleration/Deceleration Time [ms] | 20 – 1,000(16 steps) |
| Interface | RS232C (D sub 9pin: female) |
| I/O | D-Sub25pin: female (I/O 24V) |
| Power Supply | AC 100 – 240V ±10% 50/60Hz apparent power 100VA |
| Operating Environment | Temperature: 0 – 40°C Humidity: 20 – 80% RH (non-condensing) |
| Weight [kg] | 2.0 |

Outline Drawing (in mm)



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