

# Manual 12-axis (6-axis) Optical Fiber Alignment Stage Unit

# Motorized 12-axis (6-axis) Optical Fiber Alignment Stage Unit

DAU-080M

DAU-080A

## DAU-080M

Catalog Code W2032

## Application Systems

## Optics &amp; Optical Coatings

## Opto-Mechanics

## Bases

## Manual Stages

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## Motorized Stages

## Light Sources &amp; Laser Safety

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## Microscope Unit

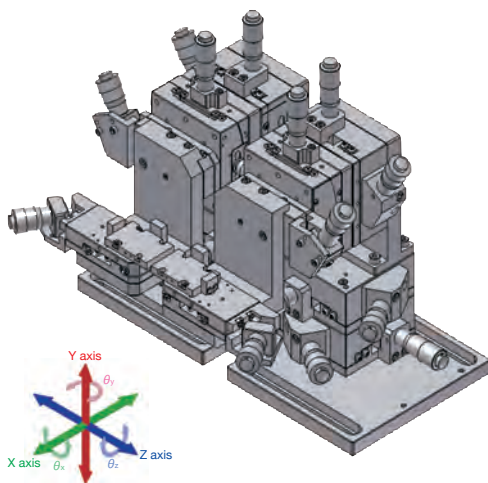
## Alignment

## Interferometers

## Inspection/Observation

## Bio-photonics

## Laser Processing



**Manual 12-axis (6-axis) optical fiber alignment stage units.** These units are best suited for alignment of passive devices such as optical waveguide and fiber array.

- Use of high resolution stages enables alignment with high rigidity and high efficiency.
- The magnetic mounting method and the positioning mechanism used in the holders ensure positional repeatability.
- A variety of compatible holders enables application extension associated with device change.  
(Fiber holders, fiberrotation holders, fiber array holders, etc.)

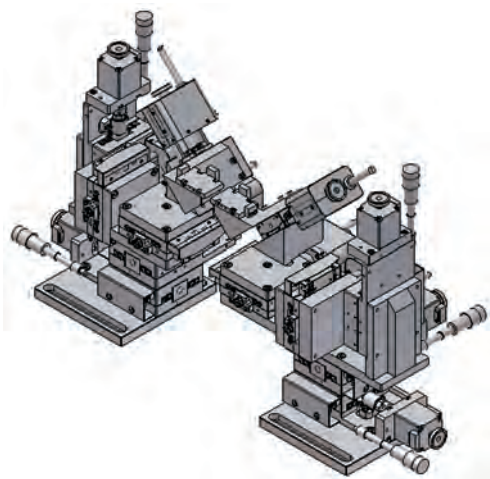
Part Number	Axis
DAU-080M-0	12 axes
DAU-080M-L	6 axes
DAU-080M-R	6 axes

## Specifications

Part Number	Axis	X	Y	Z	$\theta_x$	$\theta_y$	$\theta_z$
DAU-080M-L	Travel	Coarse: $\pm 6.5\text{mm}$ Fine: $\pm 0.25\text{mm}$	Coarse: $\pm 6.5\text{mm}$ Fine: $\pm 0.25\text{mm}$	Coarse: $\pm 6.5\text{mm}$ Fine: $\pm 0.25\text{mm}$	$\pm 2.5^\circ$	$\pm 2.5^\circ$	$\pm 5^\circ$
	Resolution	Coarse: 0.01mm Fine: 0.0005mm	Coarse: 0.01mm Fine: 0.0005mm	Coarse: 0.01mm Fine: 0.0005mm	27.8"	27.8"	26.8"
DAU-080M-R	Travel	Coarse: $\pm 6.5\text{mm}$ Fine: $\pm 0.25\text{mm}$	Coarse: $\pm 6.5\text{mm}$ Fine: $\pm 0.25\text{mm}$	Coarse: $\pm 6.5\text{mm}$ Fine: $\pm 0.25\text{mm}$	$\pm 2.5^\circ$	$\pm 2.5^\circ$	$\pm 5^\circ$
	Resolution	Coarse: 0.01mm Fine: 0.0005mm	Coarse: 0.01mm Fine: 0.0005mm	Coarse: 0.01mm Fine: 0.0005mm	27.8"	27.8"	26.8"

## DAU-080A

Catalog Code W2033



**Motorized 12-axis (6-axis) alignment stage units with six pairs of symmetrical axes.** These units are best suited for alignment of passive devices such as optical waveguide and fiber array.

- Use of high resolution stages enables alignment with high rigidity and high efficiency.
- The magnetic mounting method and the positioning mechanism used in the holders ensure positional repeatability.
- A variety of compatible holders enables application extension associated with device change.  
(Fiber holders, fiberrotation holders, fiber array holders, etc.)

Part Number	Axis
DAU-080A-0	12 axes
DAU-080A-L	6 axes
DAU-080A-R	6 axes

## Specifications

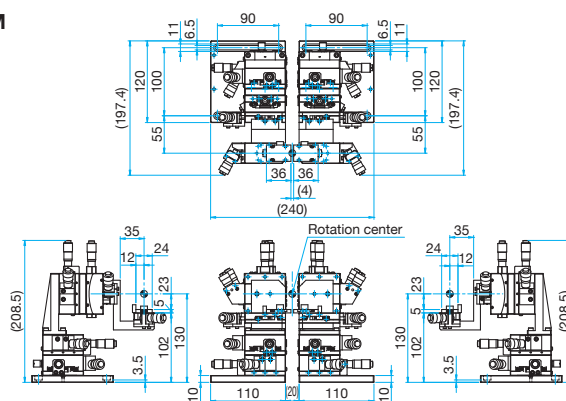
Part Number	Axis	X	Y	Z	$\theta_x$	$\theta_y$	$\theta_z$
DAU-080A-L	Travel	30mm	30mm	30mm	$\pm 9^\circ$	$\pm 7^\circ$	$\pm 5^\circ$
	Resolution	(Full) 2 $\mu\text{m}$	2 $\mu\text{m}$	2 $\mu\text{m}$	$\approx 0.00229^\circ$	$\approx 0.00198^\circ$	$\approx 0.0217^\circ$
		(Half) 1 $\mu\text{m}$	1 $\mu\text{m}$	1 $\mu\text{m}$	$\approx 0.00115^\circ$	$\approx 0.00095^\circ$	$\approx 0.0108^\circ$
	Positioning Accuracy	<6 $\mu\text{m}$	<6 $\mu\text{m}$	<6 $\mu\text{m}$	—	—	—
	Positional Repeatability	<1 $\mu\text{m}$	<1 $\mu\text{m}$	<1 $\mu\text{m}$	< $\pm 0.004^\circ$	< $\pm 0.004^\circ$	< $\pm 0.004^\circ$
DAU-080A-R	Travel	30mm	30mm	30mm	$\pm 9^\circ$	$\pm 7^\circ$	$\pm 5^\circ$
	Resolution	(Full) 2 $\mu\text{m}$	2 $\mu\text{m}$	2 $\mu\text{m}$	$\approx 0.00229^\circ$	$\approx 0.00198^\circ$	$\approx 0.0217^\circ$
		(Half) 1 $\mu\text{m}$	1 $\mu\text{m}$	1 $\mu\text{m}$	$\approx 0.00115^\circ$	$\approx 0.00095^\circ$	$\approx 0.0108^\circ$
	Positioning Accuracy	<6 $\mu\text{m}$	<6 $\mu\text{m}$	<6 $\mu\text{m}$	—	—	—
	Positional Repeatability	<1 $\mu\text{m}$	<1 $\mu\text{m}$	<1 $\mu\text{m}$	< $\pm 0.004^\circ$	< $\pm 0.004^\circ$	< $\pm 0.004^\circ$

# Motorized 3-axis XYθ Stage Unit | DAU-120A

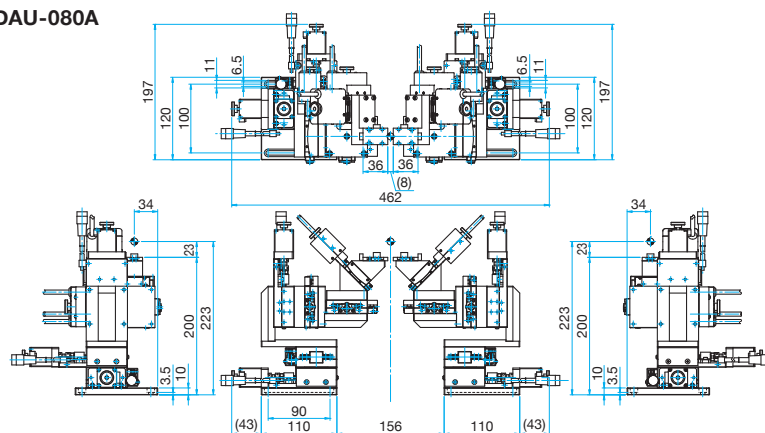
## Outline Drawing

(in mm)

DAU-080M



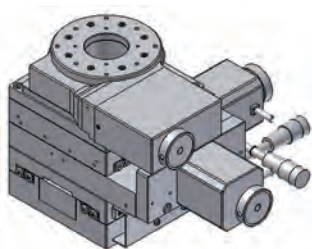
DAU-080A



## DAU-120A

Catalog Code W2034

Motorized 3-axis XYθ stage unit required for alignment of TOSA (UV cure adhesive mounting type)/ROSA.



- Optional configurations include a gimbal mount for YAG laser welding as well as a Z axis stage.
- Use of the high stiffness and high performance stages enabled alignment with excellent repeatability.
- A variety of compatible holders enables application extension associated with device change.  
(Fiber holders, fiberrotation holders, fiber array holders, etc.)

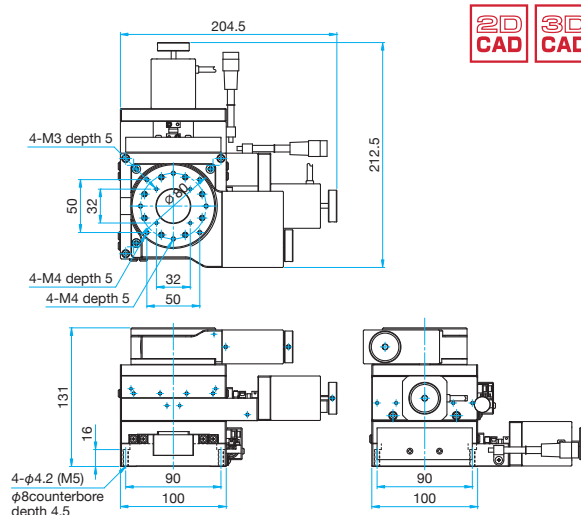
Part Number	Axis
DAU-120A	3 axes

### Specifications

Part Number	Axis	X	Y	θ
DAU-120A	Travel	50mm	50mm	Move in the counterclockwise CCW direction to ∞ and stop at near 0 degree (-2.5°) in the clockwise CW direction.
	Resolution	(Full)	2μm	0.005°/pulse
		(Half)	1μm	0.0025°/pulse
	Positioning Accuracy	<6μm	<6μm	0.15°
	Positional Repeatability	<1μm	<6μm	0.02°

## Outline Drawing

(in mm)



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