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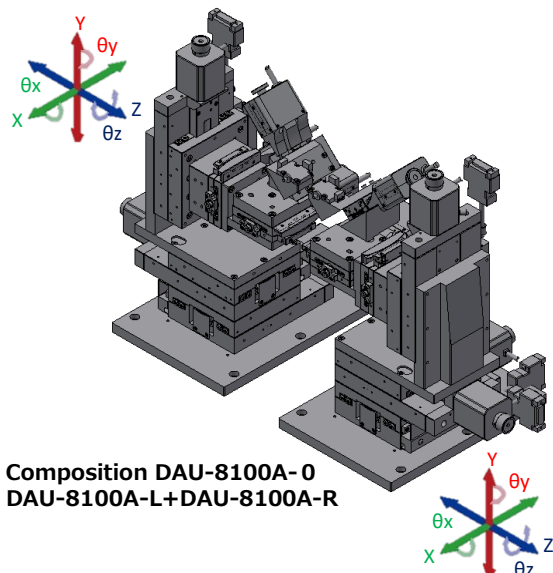
# Motorized 12-axis Optical Fiber Alignment Stage Unit

DAU-8100A-0 RoHS

12-axis motorized stage unit for automatic alignment with symmetrical 6-axis stages.

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.
- Compared with the conventional automatic alignment unit (DAU-080A type), it is more rigid and allows longer travel.
- 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, fiber rotation holders, fiber array holders, etc.)



Composition DAU-8100A-0  
DAU-8100A-L+DAU-8100A-R

## Guide

- ▶ Special holders are available for the DAU-8100A series alignment unit.  
Fiber holders (FHRM series)  
Fiber rotation holders (FHRM series)  
Fiber array holders (ARH series)
- ▶ Individual left (DAU-8100A-L) and right (DAU-8100A-R) unit can be purchased separately.
- ▶ If you are considering using the DAU-8100A 12-axis automatic alignment unit as the main axis for your alignment system, please contact our sales department.

## Attention

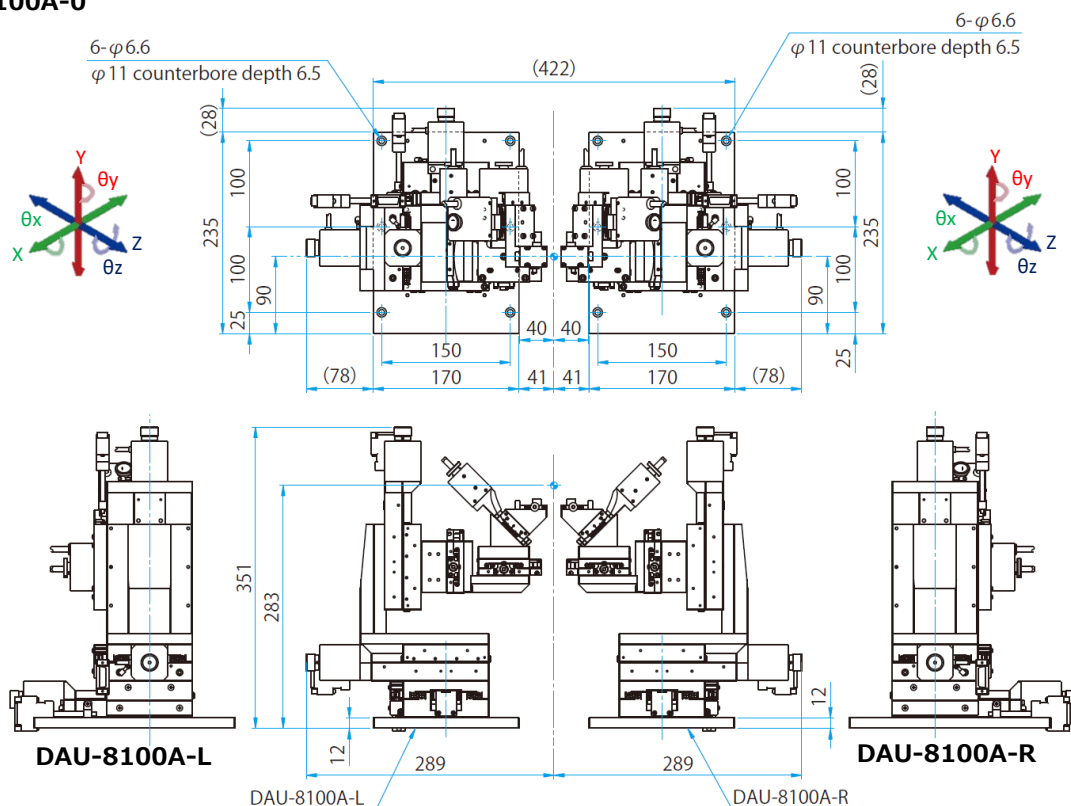
- ▶ Automatic alignment unit (DAU-8100A-L+DAU-8100A-R) may interfere when traveling full stroke depending on the condition.

| Part Number | Axis    |
|-------------|---------|
| DAU-8100A-0 | 12 axes |

## Outline Drawing

(in: mm)

### DAU-8100A-0



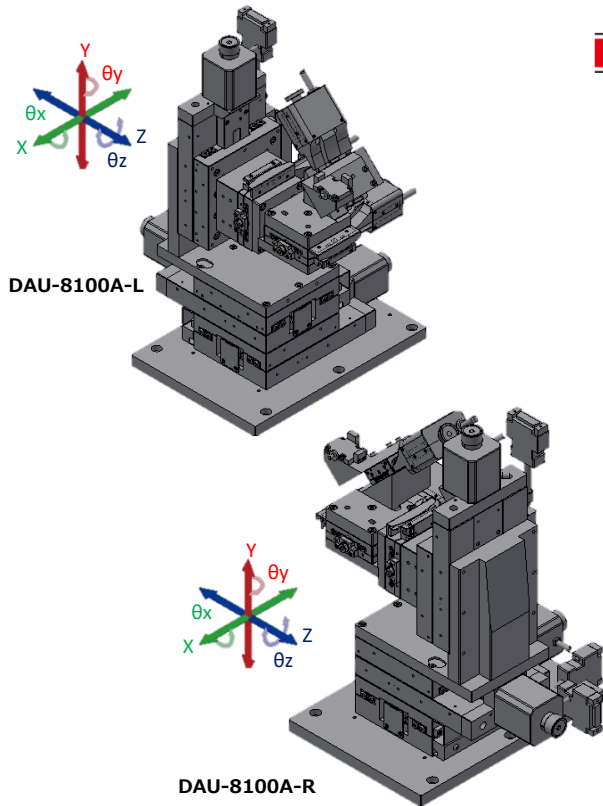
# Motorized 6-axis Optical Fiber Alignment Stage Unit

## DAU-8100A-L/R



This is a stage unit for 6-axis automatic alignment combining  $\theta_x\theta_y\theta_z$  axes with linear motion XYZ axes. Symmetrical L type and R type are available.

- Use of high-resolution stages enables alignment with high rigidity and high efficiency.
- Compared with the conventional automatic alignment unit (DAU-080A type), it is more rigid and allows longer travel.
- 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, fiber rotation holders, fiber array holders, etc.)



### Guide

- ▶ Combination of the left and right units forms the DAU-8100A-0.
- ▶ Special holders are available for the DAU-8100A series alignment unit.
  - Fiber holders (FHMF series)
  - Fiber rotation holders (FHRM series)
  - Fiber array holders (ARH series)
- ▶ If you are considering a fiber alignment unit with the DAU-8100A as its main axis, please contact our sales department.



FHMF



FHRM



ARH

### Attention

- ▶ When used with the 12-axis auto aligner unit (DAU-8100A-0), depending on the installation conditions of the DAU-8100A-L and DAU-8100A-R, interference may occur when traveling the full stroke.

| Part Number | Axis   |
|-------------|--------|
| DAU-8100A-L | 6 axes |
| DAU-8100A-R | 6 axes |

| Part Number | Axis                     | X            | Y            | Z            | $\theta_x$              | $\theta_y$              | $\theta_z$              |
|-------------|--------------------------|--------------|--------------|--------------|-------------------------|-------------------------|-------------------------|
| DAU-8100A-L | Part Number              | TAMM100-50C  | TAMM100-50CR | TAMM100-50CR | OSMS-40A60R             | OSMS-60A105             | OSMS-60A85R             |
|             | Travel                   | 50mm         | 50mm         | 50mm         | $\pm 5^\circ$           | $\pm 7^\circ$           | $\pm 9^\circ$           |
|             | Resolution (Full)        | 2 $\mu$ m    | 2 $\mu$ m    | 2 $\mu$ m    | $\approx 0.00217^\circ$ | $\approx 0.00189^\circ$ | $\approx 0.00229^\circ$ |
|             | Resolution (Half)        | 1 $\mu$ m    | 1 $\mu$ m    | 1 $\mu$ m    | $\approx 0.00108^\circ$ | $\approx 0.00095^\circ$ | $\approx 0.00115^\circ$ |
|             | Positioning Accuracy     | <6 $\mu$ m   | <6 $\mu$ m   | <6 $\mu$ m   | -                       | -                       | -                       |
|             | Positional Repeatability | <1 $\mu$ m   | <1 $\mu$ m   | <1 $\mu$ m   | < $\pm 0.004^\circ$     | < $\pm 0.004^\circ$     | < $\pm 0.004^\circ$     |
| DAU-8100A-R | Part Number              | TAMM100-50CR | TAMM100-50C  | TAMM100-50C  | OSMS-40A60              | OSMS-60A105R            | OSMS-60A85              |
|             | Travel                   | 50mm         | 50mm         | 50mm         | $\pm 5^\circ$           | $\pm 7^\circ$           | $\pm 9^\circ$           |
|             | Resolution (Full)        | 2 $\mu$ m    | 2 $\mu$ m    | 2 $\mu$ m    | $\approx 0.00217^\circ$ | $\approx 0.00189^\circ$ | $\approx 0.00229^\circ$ |
|             | Resolution (Half)        | 1 $\mu$ m    | 1 $\mu$ m    | 1 $\mu$ m    | $\approx 0.00108^\circ$ | $\approx 0.00095^\circ$ | $\approx 0.00115^\circ$ |
|             | Positioning Accuracy     | <6 $\mu$ m   | <6 $\mu$ m   | <6 $\mu$ m   | -                       | -                       | -                       |
|             | Positional Repeatability | <1 $\mu$ m   | <1 $\mu$ m   | <1 $\mu$ m   | < $\pm 0.004^\circ$     | < $\pm 0.004^\circ$     | < $\pm 0.004^\circ$     |