Multi-Axis Assembly

XY Assembly Options

Example: P/N = PA5 - A - 1L - 2U

<table>
<thead>
<tr>
<th>Upper axis motor orientation</th>
<th>Lower axis motor orientation</th>
<th>Assembly orientation</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Assembly type (orthogonality specification)</td>
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</table>

**STEP 1: Specify Assembly Type**

NPA = Non-precision assembly
PA10 = XY assembly; 10 arc sec orthogonality; alignment to within 7 microns orthogonality for short travel stages
PA5 = XY assembly; 5 arc sec orthogonality; alignment to within 3 microns orthogonality for short travel stages

**STEP 2: Specify Assembly Orientation**

See drawings on the right. Choose A or B

**STEP 3: Specify Lower Axis Motor Orientation**

Choose from options 0 through 13 (see Motor Orientation Options section). Include “L” after option code. Use option 0 for linear motor stages, or stages with no motor.

**STEP 4: Specify Upper Axis Motor Orientation**

Choose from options 0 through 13 (see Motor Orientation Options section). Include “U” after option code. Use option 0 for linear motor stages, or stages with no motor.
**Multi-Axis Assembly CONTINUED**

**XZ or YZ Assembly Options**

Example: P/N = PA5Z - A - 1H - 2V

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**STEP 1: Specify Assembly Type**

NPAZ = Non-precision assembly
PA10 Z = XZ/YZ assembly with L-bracket; 10 arc second orthogonality; alignment to within 10 microns orthogonality for short travel stages
PA5Z = XZ/YZ assembly with L-bracket; 5 arc second orthogonality; alignment to within 5 microns orthogonality for short travel stages

**STEP 2: Specify Assembly Orientation**

See drawings on the right. Choose A, B, C, or D.
Note: Linear motor and belt driven stages cannot be used in the vertical axis.

**STEP 3: Specify Lower Axis Motor Orientation**

Choose from options 0 through 13 (see Motor Orientation Options section). Include “H” after option code. For XYZ assembly, enter option 0 and specify motor orientation for upper axis of XY assembly. Use option 0 for linear motor stages, or stages with no motor.

**STEP 4: Specify Upper Axis Motor Orientation**

Choose from options 0 through 13 (see Motor Orientation Options section). Use “V” after option code. Use option 0 for stages with no motor.