Pneumatically Driven Linear Guides - Overview

Features of Table Type
The excellent actuators with advantages of high rigidity and precision of Linear Guides, which is achieved by using the Linear Guide with built-in air cylinders. The cross section area is 1/20 compared to that of general cylinders with guides (comparison by the same tube ID). Additionally, unlike the conventional cylinder, it does not require a rotation stopper and results in saving tightness and positioning repeatability. You can significantly reduce manufacturing expenses for designing, assembling, and adjustment.

A type between Ø6 and Ø12 is available for a cylinder ID. You can select Metal Stopper or Rubber Stopper for the stroke adjustment mechanism. There is a wide variety to choose from.

General Cylinder with Guides
(Combination Structure)

Compared to Cylinder with Guides ⇒ 1/20 Cross Section Area

Structure and Construction
Tube I.D. Ø6
Tube I.D. Ø6, 10, 12, 16

Stroke Adjustment Mechanism
Tube I.D. Ø6
Metal Stopper (†)
Tube I.D. Ø6, 10, 12
Metal Stopper (†)
Rubber (†)

Features of L-Shaped Table Type
A long stroke version of a side guide with built-in air cylinders. A table that can be used for direct mounting on the side surface of a table in addition to the upper surface is attached. For its high rigidity and high positioning accuracy, floating joints normally used with cylinders are not needed. Space-saving design for the connecting parts. It can withstand 10 times or more larger moment load than that general cylinders with guides can.

L-Shaped Table Type

Long Stroke Type

Structure and Construction
Tube I.D. Ø6
Tube I.D. Ø6, 10, 12

Product Names | Material | Note
--- | --- | ---
Linear Guide | | |
Air Cylinder | | |
Tube I.D. Ø6 (Metal Stopper (†)) | | |
Tube I.D. Ø6, 10, 12 (Metal Stopper (†)) | | |
Tube I.D. Ø6, 10, 12 (Rubber (†)) | | |

Table Type

Miniature linear guides with built-in air cylinders!

Air Supply Port
There are dowel holes for workpiece position repeatability on upper surface of the table.

With Metal Stopper and Switches
Miniature Switches 2 pcs., included

Switches
- How to Install (Refer to Page 8)
Attach switching maneuver to the switch (1) and insert it to the switch groove (2). Set the tripping position and hold the switch with a small screwdriver. Tightening torque should be 0.1N.m (high only)
- Switch Actions

With Non-Metal Stopper and Switches
- How to Switch (Refer to Page 9)
Attach switching mechanism to the table (1) and insert it to the switch groove (2). Set the tripping position and hold the switch with a small screwdriver. Tightening torque should be 0.1N.m (high only)
- Switch Actions

Load and Moment Ratings

<table>
<thead>
<tr>
<th>Table Type</th>
<th>Basic Static Load Ratings</th>
<th>Allowable Static Moments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Load Limit (N)</td>
<td>Moment Limit (Nm)</td>
</tr>
<tr>
<td>MPPT6</td>
<td>53.1</td>
<td>18.4</td>
</tr>
<tr>
<td>MPPT8</td>
<td>127.5</td>
<td>44.3</td>
</tr>
<tr>
<td>MPPT10</td>
<td>197.6</td>
<td>68.2</td>
</tr>
<tr>
<td>MPPT12</td>
<td>267.7</td>
<td>92.1</td>
</tr>
<tr>
<td>MPPT16</td>
<td>337.8</td>
<td>116.0</td>
</tr>
</tbody>
</table>

Bearing Accuracy

Parallelism of Adjusting Block

Table Type | Adjusting Block
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L-Shaped Table Type | Adjusting Block

Datasheet surface is the body side becomes narrower when the stoppers are attached. In this case, the adjusting block surface area can be used as the datum: "Parallelism ±0.029"
Pneumatically Driven Linear Guides
MPPT6Y, MPPT8 Series

**MPPT6Y-1.5-S**
With Switches

**MPPT6Y-2.5-S**
With Switches

**MPPT7.5-S**
With Switches, Rubber Stopper and Switch Rail

**Part Number**
- Stroke
- Specification Selection
- Unit Price (per Each Spec.) 1 ~ 3 pc(s.)

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**MPPT10-1.5-S**
With Switches

**MPPT10-2.5-S**
With Switches

**MPPT12-1.5-S**
With Switches

**Part Number**
- Stroke
- Specification Selection
- Unit Price (per Each Spec.) 1 ~ 3 pc(s.)

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- Dimensions in ( ) are for 5mm stroke.
- Dimensions in [ ] are for 10mm stroke.
- Dimensions in ( ] are for 20mm stroke.
- Dimensions in [ ] are for 25mm stroke.
- Dimensions in [ ] are for 30mm stroke.

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For orders larger than indicated quantity, please request a quotation.

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About Specifications and Switches

Pneumatically Driven Linear Guides
MPPT16 Series

- Stroke 30/45mm
- With Switches
- 2 switches are included with Switch Type.

Specifications:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Stroke</th>
<th>Specification Selection</th>
<th>Min/Max Load</th>
<th>Mass (g)</th>
<th>Unit Price (per Each Spec.)</th>
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</thead>
<tbody>
<tr>
<td>MPPT16-30-S</td>
<td>30</td>
<td>Main Body Only</td>
<td>-</td>
<td>2.0kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Additional Specifications:

- Dimensions in ( ) are for 30mm stroke.
- The dimensions are the same as Switch Type.
- For details of the dimensions, please refer to CAD data.

Pneumatically Driven Linear Guides - L-Shaped
MPPU10, MPPU12 Series

- Stroke 30/45/60mm
- Main Body Only

Specifications:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Stroke</th>
<th>Specification Selection</th>
<th>Min/Max Load</th>
<th>Mass (g)</th>
<th>Unit Price (per Each Spec.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPPU10-60-S</td>
<td>60</td>
<td>Main Body Only</td>
<td>-</td>
<td>3.51kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Additional Specifications:

- Dimensions in ( ) are for 60mm stroke.
- The dimensions are the same as Switch Type.
- For details of the dimensions, please refer to CAD data.