HLB Series  Thin Parallel Hand (Cross Roller Type)

Smooth Motion and High Accuracy Thin Parallel Hand

Key Features

- Cross roller
  Cross roller bearing guide provides smooth motion and high accuracy
- Long stroke for compact body
  Low profile body design
  Long stroke for both large and small workpiece handling

How To Order

Standard  ......... HLB-12AS

Option  ......... HLB - 12AS - E16S2  non-contact reed switches

<table>
<thead>
<tr>
<th>Size</th>
<th>Symbol</th>
<th>Sensor, Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>12AS</td>
<td>E16</td>
<td>Contact 2-Lead</td>
</tr>
<tr>
<td>15AS</td>
<td>E16L</td>
<td>Contact 2-Lead</td>
</tr>
<tr>
<td>20AS</td>
<td>E17</td>
<td>Contact 2-Lead</td>
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<td></td>
<td>E17L</td>
<td>1-Sensor</td>
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<td>E26</td>
<td>2-Sensors</td>
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For sensor detail J2770

Internal Structure / Parts & Seals

Parts List

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Material</th>
<th>No.</th>
<th>Name</th>
<th>Material</th>
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<td>1</td>
<td>Body</td>
<td>Aluminum</td>
<td>8</td>
<td>Bearing Guide B</td>
<td>Carbon Steel</td>
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<tr>
<td>2</td>
<td>Master (Base) Jaw</td>
<td>Carbon Steel</td>
<td>9</td>
<td>Magnet</td>
<td>Carbon Steel</td>
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<td>3</td>
<td>Piston</td>
<td>Stainless Steel</td>
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<td>Small Diameter Ball Bearing</td>
<td>Carbon Steel</td>
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<td>4</td>
<td>Cam</td>
<td>Stainless Steel</td>
<td>11</td>
<td>Cross Roller</td>
<td>Stainless Steel</td>
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<td>5</td>
<td>Cylinder Cover</td>
<td>Resin</td>
<td>12</td>
<td>Piston Seal</td>
<td>Resin</td>
</tr>
<tr>
<td>6</td>
<td>Magnet Holder</td>
<td>Resin</td>
<td>13</td>
<td>Snap Ring</td>
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<tr>
<td>7</td>
<td>Bearing Guide A</td>
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<td>Small Truss Head Screw</td>
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Seals List

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<tr>
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<td>MYA-11</td>
<td>MYA-16</td>
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Performance Data

Grip Force

The graph shows grip force in opening and closing with effective external finger lengths f from gripper cover surface under different air pressure (MPa)

Open (≦)  
Closed (≥)

<table>
<thead>
<tr>
<th>Model</th>
<th>HLB-12AS</th>
<th>HLB-15AS</th>
<th>HLB-20AS</th>
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<tr>
<td></td>
<td>For Layout Drawing</td>
<td>For Layout Drawing</td>
<td>For Layout Drawing</td>
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<tr>
<td>Working Pressure</td>
<td>Pneumatic: 0.1 to 0.7MPa</td>
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</tr>
<tr>
<td>Lubrication</td>
<td>Not Required or Turbine Oil Class 1 (ISOVG32)</td>
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<tr>
<td>Ambient Temperature</td>
<td>5 to 60°C</td>
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<tr>
<td>Total Jaw Stroke</td>
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<tr>
<td>Cylinder Diameter</td>
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<tr>
<td>Internal Volume [mm³/time]</td>
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<tr>
<td>Repeatability</td>
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<tr>
<td>Weight</td>
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<td>402 g</td>
<td>678 g</td>
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</table>
HLB Series  Thin Parallel Hand (Cross Roller Type)

Smooth Motion and High Accuracy Thin Parallel Hand

Key Features

- **Cross roller**
  Cross roller bearing guide provides smooth motion and high accuracy

- **Long stroke for compact body**
  Low profile body design
  Long stroke for both large and small workpiece handling

How To Order

**Standard** HLB-12AS

**Option**

<table>
<thead>
<tr>
<th>Size</th>
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<th>Sensor, Quantity</th>
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<td>E16 Contact 2-Lead</td>
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<tr>
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<td>S2</td>
<td>S2 -2 Sensors</td>
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For sensor detail 2777

Performance Data

**Grip Force**

The graph shows grip force in opening and closing with effective external finger lengths f from gripper cover surface under different air pressure (MPa)

Open (••) Closed (○○)

**Specification**

<table>
<thead>
<tr>
<th>Model</th>
<th>HLB-12AS For Layout Drawing</th>
<th>HLB-15AS For Layout Drawing</th>
<th>HLB-20AS For Layout Drawing</th>
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<tr>
<td>Working Pressure</td>
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<tr>
<td>Ambient Temperature (°C)</td>
<td>5 to 60</td>
<td></td>
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</tr>
<tr>
<td>Total Jaw Stroke (mm)</td>
<td>13</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>Cylinder Diameter (mm)</td>
<td>dia.12</td>
<td>dia.15</td>
<td>dia.20</td>
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<tr>
<td>Internal Volume Reserve [cm³/time]</td>
<td>1.47</td>
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<tr>
<td>Repeatability (mm)</td>
<td>±0.01</td>
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<tr>
<td>Weight (g)</td>
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<td>402</td>
<td>678</td>
</tr>
</tbody>
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HLB Series  Thin Parallel Hand (Cross Roller Type)

**HLB-12AS** (Optimal Grip Force 30N to 60N)
- **HLB-12AS Standard**
- **HLB-12AS-ES**

**HLB-15AS** (Optimal Grip Force 50N to 90N)
- **HLB-15AS Standard**
- **HLB-15AS-ES**

**HLB-20AS** (Optimal Grip Force 80N to 150N)
- **HLB-20AS Standard**
- **HLB-20AS-ES**

For CAD data, please go to [Link]