### Actuator Specifications

#### Lead and Load Capacity

<table>
<thead>
<tr>
<th>Model</th>
<th>Load (kg)</th>
<th>Stroke (mm)</th>
<th>Max Load Capacity (kg)</th>
<th>Maximum Load Capacity (50mm Increments)</th>
<th>Stroke (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERC2-RA7C-I-PM-16</td>
<td>16</td>
<td>160</td>
<td>~40</td>
<td>~5</td>
<td>220</td>
</tr>
<tr>
<td>ERC2-RA7C-I-PM-8</td>
<td>8</td>
<td>50</td>
<td>~50</td>
<td>~17.5</td>
<td>441</td>
</tr>
<tr>
<td>ERC2-RA7C-I-PM-4</td>
<td>4</td>
<td>50</td>
<td>~55</td>
<td>~25</td>
<td>873</td>
</tr>
</tbody>
</table>

#### Stroke and Maximum Speed

<table>
<thead>
<tr>
<th>Stroke (mm)</th>
<th>Speed (mm/s)</th>
<th>Load Capacity (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>16</td>
<td>450 &lt;400&gt;</td>
</tr>
<tr>
<td>100</td>
<td>45</td>
<td>200</td>
</tr>
<tr>
<td>200</td>
<td>8</td>
<td>250</td>
</tr>
<tr>
<td>300</td>
<td>4</td>
<td>125</td>
</tr>
</tbody>
</table>

#### Cable List

<table>
<thead>
<tr>
<th>Type</th>
<th>Cable Symbol</th>
<th>Standard Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>P (1m)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S (2m)</td>
<td></td>
</tr>
<tr>
<td>Special Lengths</td>
<td>X06 (6m)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>W01 (1m)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>W04 (4m)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>X10 (10m)</td>
<td></td>
</tr>
<tr>
<td>Double-Ended</td>
<td>W03 (3m)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>W05 (5m)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>W10 (10m)</td>
<td></td>
</tr>
<tr>
<td>Robot Cable</td>
<td>R01 (1m)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R03 (3m)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R06 (6m)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R10 (10m)</td>
<td></td>
</tr>
<tr>
<td>Double-Ended</td>
<td>RW01 (1m)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RW03 (3m)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RW05 (5m)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RW10 (10m)</td>
<td></td>
</tr>
</tbody>
</table>

#### Option List

<table>
<thead>
<tr>
<th>Name</th>
<th>Option Code</th>
<th>See Page</th>
<th>Standard Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brake</td>
<td>B</td>
<td>A-23</td>
<td></td>
</tr>
<tr>
<td>Foot bracket</td>
<td>FT</td>
<td>A-29</td>
<td></td>
</tr>
<tr>
<td>Reversed-home</td>
<td>NM</td>
<td>A-33</td>
<td></td>
</tr>
</tbody>
</table>

### Notes on Selection

1. When the stroke increases, the maximum speed will drop to prevent the ball screw from reaching the critical rotational speed. Use the actuator specification table below to check the maximum speed at the stroke you desire.
2. Since the ERC2 series use a pulse motor, the load capacity decreases at high speeds. Check in the Speed vs. Load Capacity graph to see if your desired speed and load capacity are supported.
3. The load capacity is based on operation at an acceleration of 0.3G (0.2G for the 4mm-lead model, or when used vertically).
4. Since the ERC2 series use a pulse motor, the load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.
5. The non-rotating accuracy of the rod is ±0.02mm or less.
6. The value for the horizontal load capacity is with an external guide.
7. The values in < > apply to the SE type.
For Special Orders

Note: Do not apply any external force on the rod from any direction other than the direction of the rod’s motion. If a force is exerted on the rod in a perpendicular or rotational direction, the detent may become damaged.

Dimensions

<table>
<thead>
<tr>
<th>Stroke</th>
<th>50</th>
<th>100</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>300</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>172.5</td>
<td>362.5</td>
<td>412.5</td>
<td>462.5</td>
<td>512.5</td>
<td>562.5</td>
</tr>
<tr>
<td>A</td>
<td>194</td>
<td>244</td>
<td>294</td>
<td>344</td>
<td>394</td>
<td>444</td>
</tr>
<tr>
<td>B</td>
<td>423.5</td>
<td>523.5</td>
<td>623.5</td>
<td>723.5</td>
<td>823.5</td>
<td>923.5</td>
</tr>
<tr>
<td>C</td>
<td>106</td>
<td>156</td>
<td>206</td>
<td>256</td>
<td>306</td>
<td>356</td>
</tr>
</tbody>
</table>

Weight (kg):
- 2.7
- 2.9
- 3.0
- 3.2
- 3.5
- 3.8

I/O Type (Built-In Controller)

<table>
<thead>
<tr>
<th>Name</th>
<th>External View</th>
<th>Model</th>
<th>Description</th>
<th>Max. Positioning Points</th>
<th>Input Voltage</th>
<th>User Supply Capacity</th>
<th>Standard Price</th>
<th>See Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIO Type (NPN)</td>
<td>ERC2-RA7C-I-PM-□□□□-NP-□□□□</td>
<td>Easy to control, capable of positioning up to 16 points</td>
<td>16</td>
<td>2A max.</td>
<td>-</td>
<td>-</td>
<td>PS15</td>
<td></td>
</tr>
<tr>
<td>PIO Type (PNP)</td>
<td>ERC2-RA7C-I-PM-□□□□-PN-□□□□</td>
<td>Supports the PNP I/O, commonly used overseas.</td>
<td>16</td>
<td>DC24V</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>SIO Type</td>
<td>ERC2-RA7C-I-PM-□□□□-SE-□□□□</td>
<td>For connecting to a field network (gateway unit used)</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Brake Specifications Diagram

* Compared to the standard model, the brake-equipped model is longer by 49mm and heavier by 0.5kg.

Brake Specifications

- Supports the PNP I/O, commonly used overseas.
- A brake unit is provided, which can be used for any interference with the surrounding objects.
- ME: Mechanical end
- Cable joint connector

*1 See Page A-39 for details on cables
*2 The SIO type does not have a teaching port.

Note:
- Do not apply any external force on the rod from any direction other than the direction of the rod’s motion. If a force is exerted on the rod in a perpendicular or rotational direction, the detent may become damaged.