# Actuator Specifications

## Lead and Load Capacity

**Model**
- ERC2-RGS7C-I-PM-16
- ERC2-RGS7C-I-PM-8
- ERC2-RGS7C-I-PM-4

**Description**
- Stroke List
- Cable List
- Option List

**Legend**
- Stroke
- I/O Type
- Cable Length
- Options

**Technical References**
- P. A-5

### Stroke List

<table>
<thead>
<tr>
<th>Stroke (mm)</th>
<th>Standard Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>–</td>
</tr>
<tr>
<td>100</td>
<td>–</td>
</tr>
<tr>
<td>150</td>
<td>–</td>
</tr>
<tr>
<td>200</td>
<td>–</td>
</tr>
<tr>
<td>250</td>
<td>–</td>
</tr>
<tr>
<td>300</td>
<td>–</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 P (1m)</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Special Lengths</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Double-Ended W01 (1m)</td>
<td>W03 (1m)</td>
<td></td>
</tr>
<tr>
<td>Robot Cable RW01 (5m)</td>
<td>RW03 (5m)</td>
<td></td>
</tr>
<tr>
<td>Double-Ended Robot Cable RW04 (6m)</td>
<td>RW06 (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-20</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>

**Actuator Specifications**

- **Series**: ERC2
- **Type**: RGS7C
- **Controller-Integrated**: Rod Type
- **68mm Width**: Pulse Motor
- **Straight Type**:

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*See page Pre-35 for an explanation of the naming convention.*

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### Stroke and Maximum Speed

- **Model**: ERC2-RGS7C-I-PM-16
- **Model**: ERC2-RGS7C-I-PM-8
- **Model**: ERC2-RGS7C-I-PM-4

<table>
<thead>
<tr>
<th>Stroke (mm)</th>
<th>Lead 50~300 (50mm increments)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>~ 100 200 300 400 500 600 700</td>
</tr>
<tr>
<td>8</td>
<td>~ 50   ~ 15.7 67.5 120 180 250</td>
</tr>
<tr>
<td>4</td>
<td>~ 55   ~ 25 75 125 175 225 275</td>
</tr>
</tbody>
</table>

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(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 uses 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.

This is the upper limit of the acceleration.

The load capacity is based on operation at an acceleration of 0.33 (0.25 for the 4mm-lead model, or when used vertically).

The value for the horizontal/lead capacity is with an external guide.

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**Speed vs. Load Capacity**

Due to the characteristics of the pulse motor, the ERC2 series’ load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity is supported.

**Note:**
- The values enclosed in < > apply for vertical usage.
- The values in < > apply to the 50 type.

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**Legend**
- Stroke
- I/O Type
- Cable Length
- Options

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**Notes on Selection**

- **Option List**
- **Actuator Specifications**
- **Cable List**
- **Stroke List**
- **Technical References**

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**Configuration**

- ERC2 - RGS7C - I - PM -
- Encoder Incremental
- Motor: PM: Pulse motor
- Lead: 16 : 16mm
- Stroke: 50 : 50mm
- 8 : 8mm
- 4 : 4mm
- 300 : 300mm (50mm pitch increments)
- N: None
- P: 1m
- B: Brake
- M: 1m
- FT: Foot bracket
- X: Custom
- NM: Reversed-home
- W: Double-ended cable
- RW: Robot cable

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**References**

- **Technical Reference**
- **P. A-5**

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**Type**

- Controllers
- Cleanroom
- Table/Arm
- Linear Type

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**Sold & Serviced By:**

171 ERC2-RGS7C

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**Electromate**

Toll Free Phone (877) SERVO98
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sales@electromate.com
Dimensions

For Special Orders  P. A-9

**ERC2-RGS7C-PM-NP-SM**

Supports the PNP I/O, commonly used overseas.

**PIO Type (NPN)**

ERIC2-RGS7C-PM-NP-SE

For connecting to a field network (gateway unit used)

**PIO Type (PNP)**

ERIC2-RGS7C-PM-SE

Easy to control, capable of positioning up to 16 points

**PIO Type**

ERIC2-RGS7C-PM-NP

Supports the PNP I/O, commonly used overseas.

**SIO Type**

ERIC2-RGS7C-PM-SE

For connecting to a field network (gateway unit used)

**I/O Type (Built-In Controller)**

The integrated controller in the ERC2 series can be selected from the following 3 types based on the type of external input and output (I/O). Select the controller according to your applications.

**Dimensions/Weight by Stroke**

<table>
<thead>
<tr>
<th>Stroke (mm)</th>
<th>50</th>
<th>100</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guide weight (kg)</td>
<td>0.3</td>
<td>0.3</td>
<td>0.4</td>
<td>0.4</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Guide + actuator weight (kg)</td>
<td>3.0</td>
<td>3.2</td>
<td>3.4</td>
<td>3.6</td>
<td>3.8</td>
<td>4.0</td>
</tr>
</tbody>
</table>

* See page 168 for the dimensions of the actuator.