**Actuator Specifications**

### RCP2-RA2C ROBO Cylinder

#### Configuration:
- **Series**: RCP2
- **Type**: RA2C
- **I**: 1
- **20P**: 20P
- **Motor**: 20P: Pulse motor
- **Lead**: 1: 1mm
- **Stroke**: 26: 25mm
- **Drives**: 100: 100mm (25mm pitch increments)
- **Encoder**: Incremental
- **Controller**: PCON
- **Cable Length**: Integrated
- **Option**: FL: Flange

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

**Splash Proof**
- Linear Servo
- Integrated
- Servo Motor
- Pulse Motor
- Controllers
- Cleanroom
- Table/Arm
- ROBO Cylinder
- SCON
- ACON
- PCON
- ERC2
- PSEP
- SSEL
- ASE L
- XSEL
- PSEL

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#### Stroke and Maximum Speed

- **Model**: RCP2-RA2C-1-20P-1-1-2-3-4
- **Type**: 1
- **Encoder**: 7
- **Motor**: 2.5
- **Lead**: 100
- **Stroke**: 25 - 100 (25mm increments)

**Legend:**
- 

**Notes on Selection**
- Since the RCP2 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.
- The load capacity is based on operation at an acceleration of 0.05G.
- In addition, the horizontal load capacity is based on the use of an external guide. If an external force is exerted on the rod from a direction other than the motion of the rod, the detent may become damaged.

**Legend:**
- Stroke
- Compatible controller
- Cable length
- Options

**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 (3m)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>M (5m)</td>
<td>-</td>
</tr>
<tr>
<td>Special L</td>
<td>X06 (8m)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>X11 (11m)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>X16 (16m)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>R01 (1m)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>R04 (4m)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>R06 (6m)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>R11 (11m)</td>
<td>-</td>
</tr>
<tr>
<td>Robot Cable</td>
<td>R0 (0m)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>R02 (2m)</td>
<td>-</td>
</tr>
</tbody>
</table>

* See page A-39 for cables for maintenance.

**Actuator Specifications**

- **Drive System**: Ball screw ø6mm G10 grade
- **Positioning Repeatability**: ±0.02mm
- **Load Motion**: 0.1mm or less
- **Rod Diameter**: ø12mm
- **Non-rotating accuracy of rod**: ±0.1 deg
- **Ambient Operating Temp./Humidity**: 0 ~ 40°C, 85% RH or less (non-condensing)

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**Speed vs. Load Capacity**

Due to the characteristics of the pulse motor, the RCP2 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

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**References**

- Technical
- Configuration:
- Stroke List
- Cable List
- Option List
- Actuator Specifications
### For Special Orders


*2. When homing, the rod moves to the ME; therefore, please watch for any interference with the surrounding objects.

ME: Mechanical end
SE: Stroke end

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**Dimensions/Weight by Stroke**

<table>
<thead>
<tr>
<th>Stroke</th>
<th>R</th>
<th>L</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>70</td>
<td>177.5</td>
<td>0.4</td>
</tr>
<tr>
<td>50</td>
<td>70</td>
<td>207.5</td>
<td>0.5</td>
</tr>
<tr>
<td>75</td>
<td>70</td>
<td>232.5</td>
<td>0.6</td>
</tr>
<tr>
<td>100</td>
<td>70</td>
<td>257.5</td>
<td>0.7</td>
</tr>
</tbody>
</table>

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**2 Compatible Controllers**

The RCP2 series actuators can operate with the controllers below. Select the controller according to your usage.

<table>
<thead>
<tr>
<th>Name</th>
<th>Model</th>
<th>Description</th>
<th>Max. Positioning Points</th>
<th>Input Voltage</th>
<th>Power Supply Capacity</th>
<th>Standard Price</th>
<th>See Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solenoid Valve Type</td>
<td>PMEC-C-20PI-NP-2-1</td>
<td>Easy-to-use controller, even for beginners</td>
<td>3 points</td>
<td>AC100V, AC200V</td>
<td>See P481</td>
<td>–</td>
<td>– P477</td>
</tr>
<tr>
<td>Splash-Proof</td>
<td>PSEP-C-20PI-NP-2-0</td>
<td>Operate with same signal as solenoid valve.</td>
<td>3 points</td>
<td>AC100V, AC200V</td>
<td>See P481</td>
<td>–</td>
<td>– P477</td>
</tr>
<tr>
<td>Splash-Proof</td>
<td>PSEP-CW-20PI-NP-2-0</td>
<td>Operate with same signal as solenoid valve.</td>
<td>3 points</td>
<td>AC100V, AC200V</td>
<td>See P481</td>
<td>–</td>
<td>– P477</td>
</tr>
<tr>
<td>Positioner Type</td>
<td>PCON-C-20PI-NP-2-0</td>
<td>Positioning is possible for up to 512 points</td>
<td>512 points</td>
<td>DC14V</td>
<td>2A max.</td>
<td>–</td>
<td>– P525</td>
</tr>
<tr>
<td>Safety-Compliant</td>
<td>PCON-CG-20PI-NP-2-0</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>– P525</td>
</tr>
<tr>
<td>Pulse Train Input Type</td>
<td>PCON-PL-20PI-NP-2-0</td>
<td>Pulse train input type with differential line driver support</td>
<td>3 points</td>
<td>DC14V</td>
<td>2A max.</td>
<td>–</td>
<td>– P525</td>
</tr>
<tr>
<td>Pulse Train Input Type</td>
<td>PCON-PO-20PI-NP-2-0</td>
<td>Pulse train input type with open collector support</td>
<td>3 points</td>
<td>DC14V</td>
<td>2A max.</td>
<td>–</td>
<td>– P525</td>
</tr>
<tr>
<td>Serial Communication</td>
<td>PCON-SE-20PI-N-0-0</td>
<td>Dedicated to serial communication</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>– P525</td>
</tr>
<tr>
<td>Field Network Type</td>
<td>RPCON-20P</td>
<td>Dedicated to field network</td>
<td>768 points</td>
<td>DC14V</td>
<td>2A max.</td>
<td>–</td>
<td>– P525</td>
</tr>
<tr>
<td>Program Control Type</td>
<td>PSEL-C-1-20PI-NP-2-0</td>
<td>Programmed operation is possible Operation is possible on up to 3 axes</td>
<td>1500 points</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>– P525</td>
</tr>
</tbody>
</table>

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*1. This is for the single-axis PSEL.

*1 is a placeholder for the power supply voltage (1: 100V or 2: 100–240V).