RCP2-ROBO Cylinder

RCP2-RA6C ROBO Cylinder  Rod Type 6mm Width  Pulse Motor  Straight Type

- **Configuration:**
  - RCP - RA6C - 1 - 56P
  - Encoder Type: Incremental
  - Motor: 56P: PMEC, 56: PCON, 56: SCON
  - Lead: 16: 16mm, 8: 8mm, 4: 4mm
  - Stroke: 50: 50mm

- **Controllers:**
  - Linear Servo
  - Integrated

- **Servo Motor Options:**
  - Pulse Motor
  - Revolute Type
  - Standard

- **Splatter-Proof Table/Arm:**
  - Standard
  - Cleanroom

- **Gripper/ASEP:**
  - ROBO
  - SCON
  - PSEP
  - XSEL

- **ACON:**
  - B: Brake
  - MT: Flange
  - FT: Foot bracket
  - N: None
  - M: None

- **SSEL:**
  - Custom
  - Reversed-home

- **Table/Arm/Flat Type:**
  - AMEC
  - ASEP

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

- **Sold & Serviced By:**
  - sales@electromate.com

- **Toll Free Phone:** (877) SERVO98

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**RCP2-RA6C**

**ROBO Cylinder**

**Actuator Specifications**

**Lead and Load Capacity**

<table>
<thead>
<tr>
<th>Model</th>
<th>Load (mm)</th>
<th>Max. Load Capacity [kN]</th>
<th>Max. Push [kN]</th>
<th>Maximum Run [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCP2-RA6C-I-56P-16-1</td>
<td>16</td>
<td>40</td>
<td>5</td>
<td>240</td>
</tr>
<tr>
<td>RCP2-RA6C-I-56P-8-1</td>
<td>8</td>
<td>50</td>
<td>17.5</td>
<td>470</td>
</tr>
<tr>
<td>RCP2-RA6C-I-56P-4-1</td>
<td>4</td>
<td>55</td>
<td>26</td>
<td>800</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.
2. Since the RCP2 series uses a pulse motor, the load capacity decreases at high speeds.
3. The load capacity is based on operation at an acceleration of 0.2G. 0.2G is the upper limit of the acceleration.

**Stroke and Maximum Speed**

- **Horizontal**
  - 4mm lead: 8mm lead
  - 16mm lead

- **Vertical**
  - 8mm lead

**Actuator Options**

- **Type:**
  - Standard
  - Special Lengths
  - Robot Cable

- **Load (mm):**
  - 50
  - 100
  - 150
  - 200
  - 250
  - 300

**Option List**

- **Brake:**
  - A-25

- **Flange:**
  - A-27

- **Foot Bracket:**
  - A-29

- **Reversed-home:**
  - A-33

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**Toll Free Phone:** (877) SERVO98

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**Actuator Specifications**

- **Drive System:**
  - Ball screw
  - ø10mm
  - C10 grade

- **Positioning Repeatability:**
  - ±0.02mm

- **Lost Motion:**
  - 0.1mm or less

- **Rod Diameter:**
  - ø30mm

- **Non-rotating accuracy of rod:**
  - ±1.9 deg

- **Ambient Operating Temp./Humidity:**
  - 0°C to 40°C, 85% RH or less (non-condensing)
Compatible Controllers

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

For Special Orders

Dimensions

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 slider may become damaged.

Dimensions/Weight by Stroke

<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>Weight (kg)</td>
<td>3.1</td>
<td>3.6</td>
<td>4.1</td>
<td>4.6</td>
<td>5.1</td>
<td>5.6</td>
</tr>
</tbody>
</table>

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>External View</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>PSEP</td>
<td>PSEP-C-56PI-NP-2-0</td>
<td>Operate with same signal as solenoid valve. Supports both single and double solenoid types. No homing necessary with simple absolute type.</td>
<td>3 points</td>
<td>AC24V, 2A max.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Splash-Proof Solenoid Valve Type</td>
<td>PSEP</td>
<td>PSEP-CW-56PI-NP-2-0</td>
<td>Positioning is possible for up to 512 points</td>
<td>512 points</td>
<td>AC24V, 2A max.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Positioner Type</td>
<td>PCON</td>
<td>PCON-C-56PI-NP-0-0</td>
<td>Positioning is possible for up to 512 points</td>
<td>512 points</td>
<td>DC24V, 3A max.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Safety-Compliant Positioner Type</td>
<td>PCON</td>
<td>PCON-CG-56PI-NP-2-0</td>
<td>Pulse train input type with open collector support</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pulse Train/Input Type (Differential Line Driver)</td>
<td>PCON</td>
<td>PCON-FI-56PI-NP-0-0</td>
<td>Pulse train input type with differential line driver support</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pulse Train/Output Type (Open Collector)</td>
<td>PCON</td>
<td>PCON-FO-56PI-NP-2-0</td>
<td>Pulse train output type with open collector support</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Serial Communication Type</td>
<td>PCON</td>
<td>PCON-SE-56PI-NP-0-0</td>
<td>Dedicated to serial communication</td>
<td>84 points</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Field Network Type</td>
<td>PCON</td>
<td>PCON-SNP-0-0</td>
<td>Dedicated to field communication</td>
<td>768 points</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Program Control Type</td>
<td>PSEL-C-1-56PI-NP-2-0</td>
<td>Programmable operation is possible. Operation is possible on up to 2 axes</td>
<td>1530 points</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

* This is for the single-axis PSEL.

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