RCP3-SA2BR
ROBO Cylinder Mini Slider Type Side-Mounted Motor Unit 28mm Width
Pulse Motor Lead Screw

- Configuration: RCP3-SA2BR - I - 20P
  Series Type Encoder Motor Lead Stroke Compatible Controllers Cable Length Option
  20P: Pulse motor 65: 4mm lead screw 25: 2mm lead screw 150: 150mm (25mm pitch increments)
  Motor sizes: 20 45: 4mm lead screw 25: 2mm lead screw

- Speed vs. Load Capacity
  Due to the characteristics of the pulse motor, the RCP3 series' load capacity decreases at high speeds. In the table below, check if your desired speed and load capacity are supported.

- Lead and Load Capacity
  Model Feed Screw Lead Load Capacity Positioning Repeatability Max. Load Capacity (mm) (kg) (mm) (mm)
  RCP3-SA2BR-I-20P-6S-1 2 3 4 6 0.25 25 280 300
  RCP3-SA2BR-I-20P-4S-1 2 3 4 4 0.5 25 280 300
  RCP3-SA2BR-I-20P-2S-1 2 3 4 2 1 25 280 300

- Stroke and Maximum Speed
  Model Lead Stroke Max. Load Capacity 75—150 (mm) (mm)
  20P: Pulse motor 65: 4mm lead screw 25: 2mm lead screw 150: 150mm (25mm pitch increments)
  Motor sizes: 20 45: 4mm lead screw 25: 2mm lead screw

- Cable List
  Type Cable Symbol Standard Price
  Standard Robot Cables P (ft) M (m)
  Special Lengths X06 (ft) ~ X10 (10m) ~ X15 (15m) ~ X20 (20m) ~

- Option List
  Name Option Code See Page Standard Price
  Left-Mounted Motor (Standard) ML ~ A-33 ~
  Right-Mounted Motor MR ~ A-33 ~
  Reversed-home NM ~ A-33 ~

- Actuator Specifications
  Item Description
  Drive System Load screw 6mm C10 grade
  Lead Motion 3.3mm or less (initial value)
  Base Material: Aluminum (white alumite treated)
  Stroke Guide
  Ambient Operating Temp./Humidity O°C ~ 40°C, 85% RH or less (non-condensing)
  Service Life 10 million cycles

- Technical References
  See Options below

- Notes on Selection
  (1) The load capacity is based on operation at an acceleration of 0.2g. This the upper limit for the acceleration.
  (2) The actuator cannot be used on its side or in a vertical orientation.
  (3) If used in a dusty environment, the service life will decrease significantly.
  (4) This model uses a lead screw, therefore please ensure that your usage is appropriate for its characteristics. (See page A-42.)

- Lead Screw
  Stroke and Maximum Speed
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### Dimensions

**Dimensions/Weight by Stroke**

<table>
<thead>
<tr>
<th>Stroke</th>
<th>25</th>
<th>50</th>
<th>75</th>
<th>100</th>
<th>125</th>
<th>150</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>113</td>
<td>138</td>
<td>153</td>
<td>188</td>
<td>213</td>
<td>238</td>
</tr>
<tr>
<td>B</td>
<td>26</td>
<td>121</td>
<td>146</td>
<td>171</td>
<td>196</td>
<td>221</td>
</tr>
<tr>
<td>C</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>50</td>
<td>82.5</td>
<td>75</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>0.32</td>
<td>0.34</td>
<td>0.37</td>
<td>0.39</td>
<td>0.42</td>
<td>0.46</td>
</tr>
</tbody>
</table>

* This is for the single-axis PSEL.

**Compatible Controllers**

The RCP3 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></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>Splas-Proof Valve Type</td>
<td></td>
<td>PSEP-C-20PI-NP-2-0</td>
<td>Operates with same signal as solenoid valves. Supports both single and double solenoid types. No homing necessary with simple absolute type.</td>
<td>3 points</td>
<td>AC100V, AC200V</td>
<td>See P481</td>
<td></td>
<td>~P477</td>
</tr>
<tr>
<td>Controller Type</td>
<td></td>
<td>PSEP-CW-20PI-NP-2-2</td>
<td>Positioning is possible for up to 512 points</td>
<td>512 points</td>
<td>DC24V</td>
<td>2A Max.</td>
<td></td>
<td>~P525</td>
</tr>
<tr>
<td>Safety-Compliant</td>
<td></td>
<td>PCON-C-20PI-NP-2-0</td>
<td>Positioning is possible for up to 512 points</td>
<td>512 points</td>
<td>DC24V</td>
<td>2A Max.</td>
<td></td>
<td>~P525</td>
</tr>
<tr>
<td>Positioner Type</td>
<td></td>
<td>PCON-CG-20PI-NP-2-0</td>
<td>Positioning is possible for up to 512 points</td>
<td>512 points</td>
<td>DC24V</td>
<td>2A Max.</td>
<td></td>
<td>~P525</td>
</tr>
<tr>
<td>Pulse Train Input Type</td>
<td></td>
<td>PCON-PL-20PI-NP-2-0</td>
<td>Pulse train input type with differential line driver support</td>
<td>( )</td>
<td>DC24V</td>
<td>2A Max.</td>
<td></td>
<td>~P525</td>
</tr>
<tr>
<td>Field Communication</td>
<td></td>
<td>PCON-SE-20PI-N-2-0</td>
<td>Pulse train input type with open collector support</td>
<td>( )</td>
<td>DC24V</td>
<td>2A Max.</td>
<td></td>
<td>~P525</td>
</tr>
<tr>
<td>Field Network Type</td>
<td></td>
<td>PCON-SC-20PI-NP-2-0</td>
<td>Dedicated to field communication</td>
<td>84 points</td>
<td>DC24V</td>
<td>2A Max.</td>
<td></td>
<td>~P525</td>
</tr>
<tr>
<td>Program Control Type</td>
<td></td>
<td>PSEL-C-1-20PI-NP-2-0</td>
<td>Dedicated to field communication</td>
<td>1500 points</td>
<td>DC24V</td>
<td>2A Max.</td>
<td></td>
<td>~P525</td>
</tr>
</tbody>
</table>

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**A-9**

2. During the homing operation, the slider moves to actuator’s mechanical end; therefore, please watch for any interference with the surrounding objects.

* The diagram below shows a left-mounted motor model.

Dimensions:

- Stroke: ME: Mechanical end
- SE: Stroke end

- 2-M3 depth 4
- 2-ø3H7 depth 3 (from bottom of base)

**Notes:**

- Dimensions/Weight by Stroke
- Compatible Controllers
- For Special Orders

**CAUTION:**

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- During the homing operation, the slider moves to actuator’s mechanical end; therefore, please watch for any interference with the surrounding objects.

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