RCA - SA5D

ROBO Cylinder	Slider Type	52mm Width	24V Servo Motor
Motor Built-In (Direct-Coupled)

<table>
<thead>
<tr>
<th>Configuration:</th>
<th>Series</th>
<th>Type</th>
<th>Encoder</th>
<th>Motor</th>
<th>Lead</th>
<th>Stroke</th>
<th>Compatible Controller</th>
<th>Cable Length</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCA - SA5D</td>
<td>20</td>
<td>20:20W Servo Motor</td>
<td>Incremental</td>
<td>A: Absolute</td>
<td>12:13mm</td>
<td>50:53mm</td>
<td>A1: ACON, ACON</td>
<td>None</td>
<td>See Options below</td>
</tr>
</tbody>
</table>

* See page Pre-35 for explanation of each code that makes up the configuration name.

** Encoder Specifications **

- **Lead and Load Capacity**
  - **Model**
    - RCA-SA5D-1-20-12-2-3-4-5
    - RCA-SA5D-1-20-6-2-3-4-5
    - RCA-SA5D-1-20-3-2-3-4-5
  - **Motor Output (kW)**
    - 20
  - **Lead (mm)**
    - 12
  - **Stroke (mm)**
    - 4
  - **Rated Thrust (mm)**
    - 1
  - **Max. Load Capacity (50mm increments)**
    - Vertical: 16.7
    - Horizontal: 60

- **Stroke and Maximum Speed**
  - **Model**
    - RCA-SA5D-1-20-12-2-3-4-5
    - RCA-SA5D-1-20-6-2-3-4-5
    - RCA-SA5D-1-20-3-2-3-4-5
  - **Motor Output (kW)**
    - 20
  - **Stroke (mm)**
    - 50
  - **Rated Thrust (mm)**
    - 5
  - **Max. Speed (Unit: mm/s)**
    - Vertical: 800
    - Horizontal: 760

** Cable List **

- **Type**
  - Standard: P (mm)
  - Special Lengths: X (mm)
  - Robot Cable: R (mm)
  - List: L (mm)

- **Cable Symbol**
  - X06 (mm) ~ X10 (10m)
  - X11 (15m)
  - X16 (20m) ~ X20 (20m)
  - X06 (8m) ~ X10 (10m)
  - X11 (15m)
  - X16 (20m) ~ X20 (20m)
  - R01 (1m) ~ R03 (3m)
  - R04 (5m)
  - R06 (8m)
  - R08 (10m)
  - R11 (15m)
  - R15 (20m)
  - R20 (20m)

* See page A-39 for cables for maintenance.

** Actuator Specifications **

- **Encoder & Stroke List**
  - Standard Price: Incremental
  - Absolute
  - **Lead (mm)**
    - 50
    - 100
    - 150
    - 200
    - 250
    - 300
    - 350
    - 400
    - 450
    - 500

- **Stroke (mm)**
  - 20
  - 30
  - 40
  - 50
  - 60
  - 70
  - 80
  - 90
  - 100
  - 110
  - 120
  - 130
  - 140
  - 150

- **Motor Type**
  - Standard: P (mm)
  - Special Lengths: X (mm)
  - Robot Cable: R (mm)

- **Option List**
  - Brake (Cable exiting end) BE ~ A-25
  - Brake (Cable exiting left) BL ~ A-25
  - Brake (Cable exiting right) BR ~ A-25
  - Foot bracket FT ~ A-29
  - Power-saving LA ~ A-32
  - Reversed-home NM ~ A-33
  - Slider Roller SR ~ A-36

- **Actuator Specifications**
  - Drive System: Ball screw Ø10mm
  - Positioning Repeatability: ±0.01mm
  - Lost Motion: 0.1mm or less
  - Base: Material: Aluminum (white alumite treated)
  - Allowable Static Moment: Mx: 15.5 Nm, My: 25.5 Nm, Mz: 47.5 Nm
  - Allowable Dynamic Moment: Mx: 4.9 Nm, My: 6.8 Nm, Mz: 11.7 Nm
  - Overhang Load Length: Mo direction: 10mm or less, Mt-Mz: direction: 150mm or less

* Based on 5,000km travel life. Directions of Allowable Load Moments

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* Toll Free Phone: 877-SERVO98
* Toll Free Fax: 877-SERV099
* www.electromate.com
* sales@electromate.com
**Dimensions**

Dimensions of the Brake Section:
- **R:** Brake cable exiting from right
- **E:** Brake cable exiting from rear
- **L:** Brake cable exiting from left

Details of the Brake Section:
- Oblong hole
- Details of a brake

Dimensions/Weight by Stroke:

<table>
<thead>
<tr>
<th>Stroke</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>30</td>
<td>15.5</td>
<td>15.5</td>
<td>15.5</td>
<td>4.5</td>
<td>15.5</td>
<td>18</td>
</tr>
<tr>
<td>100</td>
<td>60</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>22</td>
<td>31</td>
<td>36</td>
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<tr>
<td>150</td>
<td>90</td>
<td>46.5</td>
<td>46.5</td>
<td>46.5</td>
<td>34</td>
<td>46.5</td>
<td>48</td>
</tr>
<tr>
<td>200</td>
<td>120</td>
<td>62</td>
<td>62</td>
<td>62</td>
<td>50</td>
<td>62</td>
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<tr>
<td>250</td>
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<td>77.5</td>
<td>77.5</td>
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<td>77.5</td>
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<td>95</td>
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<td>115</td>
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<tr>
<td>400</td>
<td>240</td>
<td>125</td>
<td>125</td>
<td>125</td>
<td>110</td>
<td>125</td>
<td>131</td>
</tr>
<tr>
<td>450</td>
<td>270</td>
<td>140</td>
<td>140</td>
<td>140</td>
<td>115</td>
<td>140</td>
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<td>155</td>
<td>155</td>
<td>155</td>
<td>120</td>
<td>155</td>
<td>161</td>
</tr>
</tbody>
</table>

**For Special Orders**

**Dimensions**

**A** Incremental  **B** Absolute  **C** 63  **D** 50  **E** 7  **F**  5  **G**  5

**2** Dimensions of the Brake Section:
- **R:** Brake cable exiting from right
- **E:** Brake cable exiting from rear
- **L:** Brake cable exiting from left

**3** Compatible Controllers

The RCA 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>Servo Motor Type</td>
<td></td>
<td>ACON-C-20I-1</td>
<td>Easy-to-use controller, even for beginners</td>
<td>3 points</td>
<td>24V</td>
<td>2.4A max.</td>
<td></td>
<td>~P407</td>
</tr>
<tr>
<td>Stroke</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>~P407</td>
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<tr>
<td>50</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>~P407</td>
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<tr>
<td>100</td>
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<td></td>
<td></td>
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<td></td>
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<td>~P407</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>~P407</td>
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<tr>
<td>200</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>~P407</td>
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<td>300</td>
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<td></td>
<td></td>
<td></td>
<td>~P407</td>
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<tr>
<td>350</td>
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<td></td>
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<tr>
<td>400</td>
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<td></td>
<td></td>
<td></td>
<td>~P407</td>
</tr>
<tr>
<td>450</td>
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<td></td>
<td></td>
<td></td>
<td>~P407</td>
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<tr>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>~P407</td>
</tr>
</tbody>
</table>

**4** Additional notes:
- A note shows the encoder cable connected here. See page A-31 for details on cables.
- When facing the slider moves to the ME; therefore, please watch for any interference with the surrounding objects.
- ME: Mechanical end  SE: Stroke end
- 1.3A rated
- 2.5A max.
- 1.2 A
- 1.4 A
- 1.7 A

**5** Compatibility with Controllers:

<table>
<thead>
<tr>
<th>Controller Type</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>ACON-PL-20</td>
<td></td>
<td>Dedicated to field network</td>
<td>700 points</td>
<td>24V</td>
<td>2.4A max.</td>
<td>~P503</td>
<td></td>
</tr>
<tr>
<td>ACON-C-PO-20</td>
<td></td>
<td>Dedicated to field network</td>
<td>700 points</td>
<td>24V</td>
<td>2.4A max.</td>
<td>~P503</td>
<td></td>
</tr>
<tr>
<td>ACON-C-PO-20-N-PO-6</td>
<td></td>
<td>Dedicated to field network</td>
<td>700 points</td>
<td>24V</td>
<td>2.4A max.</td>
<td>~P503</td>
<td></td>
</tr>
</tbody>
</table>

**6** Integration with Controllers:

- **ACON-PL-20:** Dedicated to field network
- **ACON-C-PO-20:** Dedicated to field network
- **ACON-C-PO-20-N-PO-6:** Dedicated to field network

**7** Power Supply Options:

- 1,3A rated
- 2.5A max.

**8** Compatibility with Controllers:

- A note shows the encoder cable connected here. See page A-31 for details on cables.
- ME: Mechanical end  SE: Stroke end
- 1.3A rated
- 2.5A max.