**Model Specification Items**

<table>
<thead>
<tr>
<th>Series</th>
<th>Type</th>
<th>Encoder Type</th>
<th>Motor Type</th>
<th>Stroke (mm)</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCP6: Separate Controller</td>
<td>RA8C</td>
<td>WA</td>
<td>-60P</td>
<td>20: 20mm</td>
<td>30: 10mm</td>
</tr>
<tr>
<td>RCP6: Built-in Controller</td>
<td>WA</td>
<td>Battery-less</td>
<td>Absolute</td>
<td>60P: Stepper</td>
<td>Motor 60Ci Size</td>
</tr>
</tbody>
</table>

- **Applicable Controller/IO Type**
  - (RCP6): P4: PCON-CF8/CF8F (RCP6S)
  - SE: SIO Type

- **Cable Length**
  - N: None
  - P: 1m
  - S: 3m
  - M: 5m

- **Options**
  - XCD: Specified Length
  - RCD: Robot Cable

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**Correlation Diagrams of Speed and Payload**

- **PCON connected.**
  - RCP6(S)-RA8C Horizontal mount
  - Lead 5 assumes operation at 0.1G, the other leads assume operation at 0.2G.
  - Lead 10 assumes operation at 0.1G, the other leads assume operation at 0.2G.

- **RCP6(S)-RA8C Vertical mount**
  - Lead 5 assumes operation at 0.1G, the other leads assume operation at 0.2G.
  - Lead 10 assumes operation at 0.1G, the other leads assume operation at 0.2G.

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**Actuator Specifications**

- **Lead and Payload**
  - Model Number: RCP6(S)-RA8C-WA-60P-20 WA: Battery-less
  - Lead (mm): 20
  - Max. Payload: 30
  - Horizontal (kg): 5
  - Vertical (kg): 50
  - Stroke: 300
  - Increments: 6mm

- **Stroke and Max. Speed (Unit: mm/s)**
  - Lead (mm): 20
  - Stroke: 600
  - Max. Speed: 450

- **Cable Length**
  - Standard: P (1m)
  - Standard: S (3m)
  - Standard: M (5m)

- **Specified Length**
  - X06 (6m) ~ X10 (10m)
  - X11 (11m) ~ X15 (15m)
  - X16 (16m) ~ X20 (20m)

- **Robot Cable**
  - RO1 (1m) ~ RO3 (3m)
  - RO4 (4m) ~ RO5 (5m)
  - RO6 (6m) ~ RO10 (10m)
  - R11 (11m) ~ R15 (15m)
  - R16 (16m) ~ R20 (20m)

- **Options**
  - XCD: Specified Length
  - RCD: Robot Cable

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**Actuator Specifications**

- **Name**
  - Brake
  - Cable exit direction (Top)
  - Cable exit direction (Right)
  - Cable exit direction (Left)
  - Cable exit direction (Front)
  - Handle
  - Foot bracket
  - Y-axis adapter (Internal thread)
  - Non-motor end specification
  - Motor type: 40mm Material: Aluminum with hard anodize treatment

- **Option Code**
  - See P. 105
  - See P. 105
  - See P. 105
  - See P. 105
  - See P. 105
  - See P. 106
  - See P. 107
  - See P. 109
  - See P. 110

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**Drive system**

- Ball screw: 616mm, rolled C10
- Positioning repeatability: ±0.0mm
- Lost motion: 0.1mm or less
- Rod: 64mm Material: Aluminum with hard anodize treatment
- Static allowable torque on rod tip: 54N•m
- Max. angular displacement on rod tip: ±0.8 deg.
- Ambient operating temp. & humidity: 0~40°C, 85% RH or less (Non-condensing)

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*Please refer to P. 144 for more information regarding the maintenance cables.*
**Dimensions**

The RCP6 series actuators can be operated by the controllers indicated below. Please select the type depending on your intended use. *1 Please refer to P.147 for more information about the built-in controller of RCP6S series.

<table>
<thead>
<tr>
<th>Name</th>
<th>External view</th>
<th>DC24V</th>
<th>Pulse train</th>
<th>Program</th>
<th>Control method</th>
<th>Network</th>
<th>Maximum number of positioning points</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCDN-CFB/CGFB</td>
<td>1 Option</td>
<td></td>
<td>*Option</td>
<td></td>
<td></td>
<td></td>
<td>512</td>
<td>Please see P.131</td>
</tr>
</tbody>
</table>

*1 When the rod is returning to its home position, please be careful of interference from surrounding objects, as it will travel until it reaches the M.E.

M.E: Mechanical end  S.E: Stroke end

*2 The direction of width across flats varies depending on the product.

**Dimensions and Mass 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>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCP6 w/o brake</td>
<td>407</td>
<td>457</td>
<td>507</td>
<td>557</td>
<td>607</td>
<td>657</td>
</tr>
<tr>
<td>w/ brake</td>
<td>437</td>
<td>487</td>
<td>537</td>
<td>587</td>
<td>637</td>
<td>687</td>
</tr>
<tr>
<td>RCP6S w/o brake</td>
<td>425</td>
<td>475</td>
<td>525</td>
<td>575</td>
<td>625</td>
<td>675</td>
</tr>
<tr>
<td>w/ brake</td>
<td>454</td>
<td>494</td>
<td>534</td>
<td>584</td>
<td>634</td>
<td>684</td>
</tr>
<tr>
<td>RCP6 w/o brake</td>
<td>7.8</td>
<td>8.6</td>
<td>9.5</td>
<td>10.3</td>
<td>11.1</td>
<td>11.9</td>
</tr>
<tr>
<td>w/ brake</td>
<td>8.4</td>
<td>9.2</td>
<td>10.0</td>
<td>10.9</td>
<td>11.7</td>
<td>12.5</td>
</tr>
<tr>
<td>RCP6S w/o brake</td>
<td>8.1</td>
<td>9.0</td>
<td>9.8</td>
<td>10.6</td>
<td>11.4</td>
<td>12.3</td>
</tr>
<tr>
<td>w/ brake</td>
<td>8.7</td>
<td>9.5</td>
<td>10.4</td>
<td>11.2</td>
<td>12.0</td>
<td>12.8</td>
</tr>
</tbody>
</table>

**Supplied hex nut**

**Connections**
- PCON-CFB/CGFB
- DeviceNet
- CompoNet
- EtherCAT
- EtherCAT (IC-link)
- EtherCAT (IC-link)

**CAD drawings can be downloaded from our website.**
www.intelligentactuator.com