**ThumbPointer™ (Low-profile Flat Stick Controller)**

Omnidirectional input device realizing a smooth operating feel

### Typical Specifications

<table>
<thead>
<tr>
<th>Items</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated power</td>
<td>0.025W</td>
</tr>
<tr>
<td>Maximum operating voltage</td>
<td>5V DC</td>
</tr>
<tr>
<td>Operating travel</td>
<td>Each direction $2^\circ \pm 0.2$ mm</td>
</tr>
<tr>
<td>Operating force</td>
<td>0.75±0.3N</td>
</tr>
<tr>
<td>Operating life</td>
<td>2,000,000 cycles</td>
</tr>
</tbody>
</table>

### Product Line

<table>
<thead>
<tr>
<th>Product No.</th>
<th>Lever return mechanism</th>
<th>Center-push</th>
<th>Total resistance (kΩ)</th>
<th>Resistance taper</th>
<th>Minimum order unit (pcs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RKJXU1210006</td>
<td>With</td>
<td>Without</td>
<td>5</td>
<td>B</td>
<td>Japan: 2,000 / Export: 2,000</td>
</tr>
</tbody>
</table>

### Packing Specifications

<table>
<thead>
<tr>
<th>Tray</th>
<th>Number of packages (pcs.)</th>
<th>Export package measurements (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 case / Japan</td>
<td>2,000</td>
<td>540×360×230</td>
</tr>
<tr>
<td>1 case / Export packing</td>
<td>2,000</td>
<td></td>
</tr>
</tbody>
</table>

### Dimensions

<table>
<thead>
<tr>
<th>Style</th>
<th>Unit:mm</th>
</tr>
</thead>
</table>

### Circuit Diagram

![Circuit Diagram](image)

Be sure to connect to ground.
<table>
<thead>
<tr>
<th>Type</th>
<th>Potentiometer type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>RKJXK</td>
</tr>
<tr>
<td></td>
<td>RKJXV</td>
</tr>
<tr>
<td></td>
<td>RKJXY</td>
</tr>
<tr>
<td></td>
<td>RKJXU</td>
</tr>
<tr>
<td>Photo</td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="image1" alt="Image" /></td>
</tr>
<tr>
<td></td>
<td><img src="image2" alt="Image" /></td>
</tr>
<tr>
<td></td>
<td><img src="image3" alt="Image" /></td>
</tr>
<tr>
<td></td>
<td><img src="image4" alt="Image" /></td>
</tr>
<tr>
<td>Dimensions (typical value) (mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>W 20.7</td>
</tr>
<tr>
<td></td>
<td>17.8</td>
</tr>
<tr>
<td></td>
<td>19.6</td>
</tr>
<tr>
<td></td>
<td>18.6</td>
</tr>
<tr>
<td></td>
<td>D 25.4</td>
</tr>
<tr>
<td></td>
<td>21.3</td>
</tr>
<tr>
<td></td>
<td>18.1</td>
</tr>
<tr>
<td></td>
<td>24.3</td>
</tr>
<tr>
<td></td>
<td>H 12.9</td>
</tr>
<tr>
<td></td>
<td>11.2</td>
</tr>
<tr>
<td></td>
<td>4.9</td>
</tr>
<tr>
<td></td>
<td>5.2</td>
</tr>
<tr>
<td>Number of operating shafts</td>
<td>Single-shaft</td>
</tr>
<tr>
<td>Shaft material</td>
<td>Metal</td>
</tr>
<tr>
<td></td>
<td>Resin</td>
</tr>
<tr>
<td>Directional resolution</td>
<td>Continuous</td>
</tr>
<tr>
<td>Directional operating feeling (tactile feeling)</td>
<td>Without</td>
</tr>
<tr>
<td>Lever return mechanism</td>
<td>With / Without</td>
</tr>
<tr>
<td>Center-push mechanism</td>
<td>With / Without</td>
</tr>
<tr>
<td>Encoder</td>
<td>Without</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>−10℃ to +70℃</td>
</tr>
<tr>
<td>Operating life</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Directional operation 100,000 cycles</td>
</tr>
<tr>
<td></td>
<td>2,000,000 cycles</td>
</tr>
<tr>
<td></td>
<td>1,000,000 cycles</td>
</tr>
<tr>
<td></td>
<td>2,000,000 cycles</td>
</tr>
<tr>
<td>Automotive use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Center-push 100,000 cycles</td>
</tr>
<tr>
<td></td>
<td>500,000 cycles</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Life cycle (availability)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>100MΩ min. 250V DC</td>
</tr>
<tr>
<td></td>
<td>Voltage proof 250V AC for 1 minute</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical performance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>300mV p-p max. by JIS method</td>
</tr>
<tr>
<td>Mechanical performance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Directional operating force 8mN max. Without Lever return mechanism ±4mN With Lever return mechanism 14±10mN m</td>
</tr>
<tr>
<td></td>
<td>With knob type 0.33±0.03N</td>
</tr>
<tr>
<td></td>
<td>Without knob type 3.33±0.03N</td>
</tr>
<tr>
<td></td>
<td>0.75±0.3N</td>
</tr>
<tr>
<td>Push operating force</td>
<td>5.2±2.6N</td>
</tr>
<tr>
<td></td>
<td>7.4±3N</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Actuator strength</td>
<td>50N min. (Push/Pull)</td>
</tr>
<tr>
<td></td>
<td>98N min. (Push), 50N min. (Pull)</td>
</tr>
<tr>
<td></td>
<td>100N min. (Pull), 49N min. (Pull)</td>
</tr>
<tr>
<td></td>
<td>100N min. (Pull), 30N min. (Pull)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental performance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cold −30℃ 96h</td>
</tr>
<tr>
<td></td>
<td>Dry heat 80℃ 96h</td>
</tr>
<tr>
<td></td>
<td>Damp heat 60℃, 90 to 95%RH 96h</td>
</tr>
</tbody>
</table>

Variable Resistor Type
Multi Control Devices
Soldering Conditions

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