### Specifications

**Descriptions**

<table>
<thead>
<tr>
<th>Specifications</th>
<th>RRC-8</th>
<th>RRC-32</th>
<th>RRC-63</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>8</td>
<td>32</td>
<td>63</td>
</tr>
<tr>
<td>Effective torque</td>
<td>0.7 N·m</td>
<td>3.1 N·m</td>
<td>5.6 N·m</td>
</tr>
<tr>
<td>Actuation</td>
<td>Rack &amp; pinion type</td>
<td>Rack &amp; pinion type</td>
<td>Rack &amp; pinion type</td>
</tr>
<tr>
<td>Working fluid</td>
<td>Compressed air</td>
<td>Compressed air</td>
<td>Compressed air</td>
</tr>
<tr>
<td>Max. working pressure MPa</td>
<td>1.0</td>
<td>1.5</td>
<td>1.6</td>
</tr>
<tr>
<td>Min. working pressure MPa</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Withstanding pressure MPa</td>
<td>1.6</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Ambient temperature °C</td>
<td>-10 to 60 (no freezing)</td>
<td>-10 to 60 (no freezing)</td>
<td>-10 to 60 (no freezing)</td>
</tr>
<tr>
<td>Oscillating angle</td>
<td>90°, 180°, 270°</td>
<td>90°, 180°, 270°</td>
<td>90°, 180°, 270°</td>
</tr>
<tr>
<td>Port size</td>
<td>Rc1/8</td>
<td>Rc1/8</td>
<td>Rc1/8</td>
</tr>
</tbody>
</table>

**Cushion**

| Effective cushion length mm | 4.8 | 5.8 |
| Allowable energy absorption J | 0.05 | 0.21 | 0.41 |

| Volumetric capacity cm³ | 180° | 24 | 44 |
| 270° | 9 | 36 | 66 |

**Lubrication**

- Rubber cushion
- Air cushion

**Maximum load**

Load which applies to shaft to be following number or less.

<table>
<thead>
<tr>
<th>Model no.</th>
<th>RRC-8</th>
<th>RRC-32</th>
<th>RRC-63</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thrust load F1</td>
<td>9.8</td>
<td>39.2</td>
<td>58.8</td>
</tr>
<tr>
<td>Radial load F2</td>
<td>19.6</td>
<td>78.4</td>
<td>117.6</td>
</tr>
</tbody>
</table>

### Switch specifications

**Descriptions**

<table>
<thead>
<tr>
<th>Switch specifications</th>
<th>Proximity 2 wire</th>
<th>Proximity 3 wire</th>
<th>Reed 2 wire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications</td>
<td>Programmable controller, relay</td>
<td>Programmable controller, relay</td>
<td>Programmable controller, relay</td>
</tr>
<tr>
<td>Output method</td>
<td>NPN output</td>
<td>NPN output</td>
<td>NPN output</td>
</tr>
<tr>
<td>Power voltage</td>
<td>10 to 28 VDC</td>
<td>10 to 28 VDC</td>
<td>10 to 28 VDC</td>
</tr>
<tr>
<td>Load voltage</td>
<td>85 to 265 VAC</td>
<td>10 to 30 VDC</td>
<td>10 to 30 VDC</td>
</tr>
<tr>
<td>Load current</td>
<td>5 to 100mA (Note 1)</td>
<td>5 to 20mA (Note 1)</td>
<td>5 to 20mA (Note 1)</td>
</tr>
<tr>
<td>Current consumption</td>
<td>10mA or less with 24 VDC</td>
<td>10mA or less with 24 VDC</td>
<td>10mA or less with 24 VDC</td>
</tr>
<tr>
<td>Internal voltage drop</td>
<td>7V or less</td>
<td>4V or less</td>
<td>0.5V or less</td>
</tr>
<tr>
<td>Light</td>
<td>LED (ON lighting)</td>
<td>LED (ON lighting)</td>
<td>LED (ON lighting)</td>
</tr>
<tr>
<td>Leakage current</td>
<td>1mA or less</td>
<td>1mA or less</td>
<td>1mA or less</td>
</tr>
</tbody>
</table>

Note 1: The maximum load current 20mA above is applied at 25°C. The current will be lower than 20mA if ambient temperature around switch is higher than 25°C. (5 to 10mA when 60°C)

Note 2: Refer to Ending 1 for other switch specifications.

### Cylinder weight

<table>
<thead>
<tr>
<th>Oscillating angle</th>
<th>RRC-8</th>
<th>RRC-32</th>
<th>RRC-63</th>
</tr>
</thead>
<tbody>
<tr>
<td>90°</td>
<td>0.39</td>
<td>0.52</td>
<td>0.68</td>
</tr>
<tr>
<td>180°</td>
<td>0.43</td>
<td>0.54</td>
<td>0.75</td>
</tr>
<tr>
<td>270°</td>
<td>0.49</td>
<td>0.66</td>
<td>0.90</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Switch bracket</th>
<th>90°</th>
<th>180°</th>
<th>270°</th>
</tr>
</thead>
<tbody>
<tr>
<td>RRC-8</td>
<td>0.005</td>
<td>0.011</td>
<td>0.013</td>
</tr>
<tr>
<td>RRC-32</td>
<td>0.013</td>
<td>0.015</td>
<td>0.016</td>
</tr>
<tr>
<td>RRC-63</td>
<td>0.014</td>
<td>0.016</td>
<td>0.018</td>
</tr>
</tbody>
</table>

(E.g.) Product weight of RRC-8-90-T2H-D
- Switch weight: 0.018 x 2 pcs. = 0.036 kg
- Switch bracket: 0.005 x 2 pcs. = 0.010 kg
- Product weight: 0.39 kg + 0.036 kg + 0.010 kg = 0.436 kg
How to order

Without switch

RRC - 8 - 90 - A

With switch

RRC - 8 - 90 - T2H - R - A

Symbol | Descriptions
--- | ---
**A** | Size
Model no. | Effective torque
--- | ---
8 | 0.7 (N·m)
32 | 3.1 (N·m)
63 | 5.6 (N·m)

**B** | Maximum oscillating angle
--- | ---
90 | 90°
180 | 180°
270 | 270°

**C** | Switch model no.
--- | ---
Axial lead wire | Radial lead wire | Contact | Indicator | Lead wire
--- | --- | --- | --- | ---
T0H* | T0V* | Reed | 1 color indicator type | 2-wire
T0H* | T0V* | w/o light | 1 color indicator type | 2-wire
T5H* | T5V* | | 1 color indicator type | 2-wire
T1H* | T1V* | Proximity | 1 color indicator type | 3-wire
T2H* | T2V* | | 1 color indicator type | 3-wire
T3H* | T3V* | | 1 color indicator type | 3-wire
T3H* | T3V* | | 1 color indicator type | 3-wire
T3PH* | T3PV* | | (custom order) | 3-wire

**D** | Switch quantity
--- | ---
Blank | 1m (standard)
3 | 3m (option)
5 | 5m (option)

**E** | Option
--- | ---
A | Adjustable angle
P6 | Copper and PTFE free

<Example of model number>

RRC-8-90-T2H-R-A

Model: Rotary actuator rack & pinion type

A | Size: 8
B | Maximum oscillating angle: 90°
C | Switch model no.: proximity T2H switch, lead wire 1m
D | Switch quantity: clockwise rotation detection
E | Option: adjustable angle

How to order switch

- Switch body + mounting bracket (including rail)
RRC - T2H* - 8 - 90 - A

- Only switch body
SW - T2H*

- Mounting bracket (including rail)
RRC - T - 8 - 90

Switch model no. | Size (Item **A** above) | Maximum oscillating angle (Item **B** above)
--- | --- | ---
Switch model no. | Size (Item **A** above) | Maximum oscillating angle (Item **B** above)

Torque

- Logical torque
- Effective torque

Working pressure (MPa)

0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Clockwise rotation detection
R

Counterclockwise rotation detection
L

Two
D

Adjustable angle
A

Copper and PTFE free
P6

Working pressure (MPa)

0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Clockwise rotation detection
R

Counterclockwise rotation detection
L

Two
D

Adjustable angle
A

Copper and PTFE free
P6