RF04-S  Rotary type / Sensor specification

**Ordering method**

<table>
<thead>
<tr>
<th>Model</th>
<th>RF04</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return-to-origin method (both sides)</td>
<td>Standard</td>
<td>Limitless rotation</td>
</tr>
<tr>
<td>Bearing</td>
<td>Standard</td>
<td>High torque</td>
</tr>
<tr>
<td>Torque</td>
<td>Standard</td>
<td>High torque</td>
</tr>
<tr>
<td>Cable entry location in the right</td>
<td>from the left</td>
<td></td>
</tr>
<tr>
<td>Rotation direction</td>
<td>from the right</td>
<td></td>
</tr>
<tr>
<td>Robot positioner</td>
<td>S2S</td>
<td></td>
</tr>
<tr>
<td>Robot positioner</td>
<td>SHS</td>
<td></td>
</tr>
</tbody>
</table>

**Basic specifications**

- **Motor**: 42-step motor
- **Resolution (Pulse/rotation)**: 20480
- **Repeatability** (*°*): ±0.05
- **Drive method**: Special warm gear + belt
- **Maximum speed** (°/sec): 420 280
- **Rotating torque** (N·m): 6.6 10
- **Max. pushing torque** (N·m): 3.3 5
- **Backlash** (*°*): ±0.05
- **Max. moment of inertia** (kg·m²): 0.04 0.1
- **Cable length** (m): Standard 1 / Option: 3, 5, 10
- **Rotation range** (*°*): 360

**Note 1**: Positioning repeatability in one direction.
**Note 2**: The maximum speed may vary depending on the moment of inertia. Check the maximum speed while referring to the “Moment of inertia vs. Acceleration/Deceleration” chart and the “Effective torque vs. Speed” graph (reference).
**Note 3**: For moment of inertia and effective torque details, see P.641.

**Moment of inertia Acceleration/deceleration**

<table>
<thead>
<tr>
<th>Model</th>
<th>Standard model</th>
<th>High torque model</th>
</tr>
</thead>
<tbody>
<tr>
<td>314</td>
<td>326</td>
<td>348</td>
</tr>
<tr>
<td>296</td>
<td>308</td>
<td>326</td>
</tr>
<tr>
<td>307</td>
<td>319</td>
<td>338</td>
</tr>
</tbody>
</table>

**Effective torque vs. speed**

**Allowable load**

- **Allowable radial load** (N): Standard model 314 / High torque model 326
- **Allowable thrust load** (N): Standard model 296 / High torque model 308
- **Allowable moment** (Nm): Standard model 307 / High torque model 319

**Controller**

- **Operation method**: TS-S2S / TS-SHS
- **Remote command**

**RF04-SN  Sensor specification – Standard model**

- **Weight (kg)**: 2.3

- **Weight (kg)**: 2.3

- **Cross-sectional drawing A-A**

- **Note 1**: This drawing is output under the conditions below:
  - Torque: Standard/High torque
  - Bearing: Standard

- **Note 2**: The minimum bending radii of the motor cable and sensor cable are R30.