RF03-S Rotary type / Sensor specification

### Ordering method

**RF03**

- Model: RF03
- Return-to-origin function: S (Limitless rotation)
- Bearing: Standard / High rigidity
- Torque: Standard / High torque
- Joint: from the right / from the left
- Motor cable exit direction: Exit from right side
- Sensor cable exit direction: Exit from left side
- Robot position: 0° / 180°

**S2**

- I/O: (Sensor cable exit direction: Exit from right side)
- Robot position: 0° / 180°
- I/O point trace / Remote command

### Basic specifications

- Motor: 28 [ ] Step motor
- Resolution (Pulse/rotation): 4096
- Repeatability (°): +/-0.05
- Drive method: Special warm gear + belt
- Torque type: Standard / High torque
- Maximum speed (°/sec): 420 / 280
- Rotating torque (N/m): 0.8 / 1.2
- Max. pushing torque (N/m): 0.4 / 0.6
- Backlash (°): +/-0.5
- Max. moment of inertia (kgm²): 0.012 / 0.027
- Cable length (m): Standard / Option: 3, 5, 10
- Rotation range (°): 360

### Moment of inertia

- Acceleration/deceleration
- Effective torque vs. speed

### Allowable load

- Allowable radial load (N): Standard model / High rigidity model
- Allowable thrust load (N): Standard model / High rigidity model
- Allowable moment (N•m): Standard model / High rigidity model

### Controller

- Controller: TS-S2S (I/O point trace / Remote command)
- Operation method: TS-SHS

### RF03-SN Sensor specification – Standard model

- Manual operation screw (both sides)
- Weight (kg): 1.2
- Cross-sectional drawing A-A

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

Note 2. The minimum bending radii of the motor cable and sensor cable are 3R30.

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**Controller**

TS-S2 > 490 | TS-SH > 490
RF03-S  Sensor specification – High rigidity model

1. Table movable range by return-to-origin operation. Be careful not to interfere with the workspace or equipment around the table.
2. The return-to-origin position may differ from that shown in this drawing. To align with the position shown in this drawing, refer to the TS Series User's Manual and change the origin coordinates.