

RF03-S

Rotary type / Sensor specification

- CE compliance
- Limitless rotation

Ordering method

RF03 S

Model	Return-to-origin method S: Sensor (Limitless rotation)	Bearing N: Standard H: High rigidity	Torque N: Standard torque H: High torque	Cable entry location R: From the right L: From the left	Rotation direction N: CCW Z: CW	Cable length ^{Note 1} 1K: 1m 3K: 3m 5K: 5m 10K: 10m
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S2S

Robot positioner	S2S: TS-S2 ^{Note 2}	I/O	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board ^{Note 3}
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SHS

Robot positioner	SHS: TS-SH	I/O	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board ^{Note 3}	Battery	B: With battery (Absolute) N: None (Incremental)
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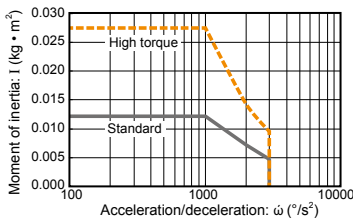
Note 1. The robot cable is flexible and resists bending.
 Note 2. See P.522 for DIN rail mounting bracket.
 Note 3. Select this selection when using the gateway function. For details, see P.66.

Basic specifications

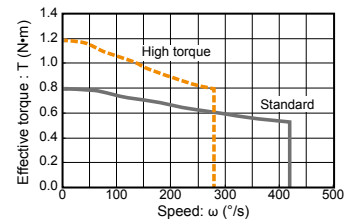
Motor	28 □ Step motor	
Resolution (Pulse/rotation)	4096	
Repeatability ^{Note 1} (°)	±/-.0.05	
Drive method	Special warm gear + belt	
Torque type	Standard	High torque
Maximum speed ^{Note 2} (°/sec)	420	280
Rotating torque (N·m)	0.8	1.2
Max. pushing torque (N·m)	0.4	0.6
Backlash (°)	±/-.0.5	
Max. moment of inertia ^{Note 3} (kg·m ²)	0.012	0.027
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" graph 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



Effective torque vs. speed



Allowable load

Standard model	High rigidity model	Allowable thrust load (N)		Standard model	High rigidity model	Standard model	High rigidity model
		(a)	(b)				
196	233	197	363	5.3	6.4		

Controller

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

Note. When purchasing the product, set the controller acceleration while carefully checking the "Moment of inertia vs. Acceleration/Deceleration" and "Effective torque vs. Speed" graphs. For details, please refer to the TRANSERVO Series User's Manual.

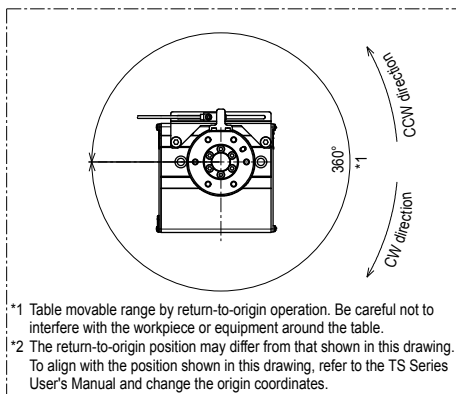
RF03-SN Sensor specification – Standard model

Weight (kg) 1.2

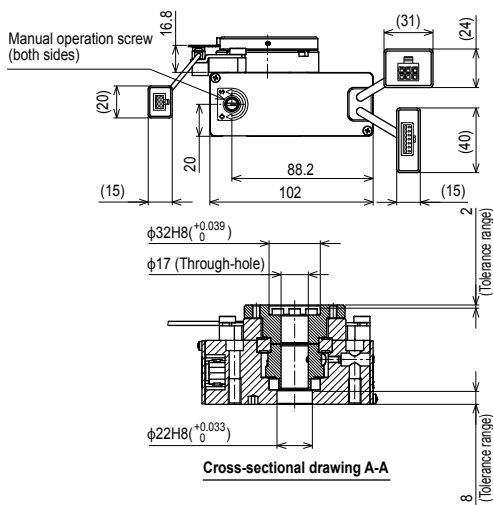
Cross-sectional drawing A-A

Note 1. This drawing is output under the conditions below.
 Bearing Standard
 Torque Standard/High torque
 Note 2. The minimum bending radii of the motor cable and sensor cable are R30.

RF03-SH Sensor specification – High rigidity model



*1 Table movable range by return-to-origin operation. Be careful not to interfere with the workpiece 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.



Cross-sectional drawing A-A

Weight (kg)	1.3
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Note 1. This drawing is output under the conditions below.
Bearing High rigidity
Torque Standard/High torque
Note 2. The minimum bending radii of the motor cable and sensor cable are R30.

