



### SPECIFICATIONS

Model	Max Torque	Max Reverse Torque	Max Rotation Speed
FFD-30FS-R103	1±0.1 Nm (10±1 kgfcm)	Clockwise	30 RPM

Max Cycle Rate	Operating Temperature	Weight	Body & Cap Material	Cap Color
13 cycles/min.	-10 ~ 60°C (90%RH)	17±2g	POM	Black

\* Rated torque is measured at a rotation speed of 20rpm at 20-25°C

### HOW TO USE THE DAMPER

- The damper generates torque in both the clockwise and counter-clockwise directions. (A one-way clutch is built in inside the damper.)
- Please make sure that the shaft attached to a damper has a bearing, as the damper itself is not fitted with one.
- It can be used as a free-stop for a load that is smaller than the rated torque.
- Please refer to the recommended dimensions in the chart when creating a shaft for attachment to the damper. Using a shaft outside of the recommended dimensions may cause the shaft to slip out.
- To insert a shaft into the damper, insert the shaft while spinning it in the opposite direction of the damper's direction of torque generation. (Do not force the shaft in from a regular direction. This may damage the built-in oneway clutch.)

Shaft's external dimensions	$\varnothing 10 \begin{smallmatrix} 0 \\ -0.03 \end{smallmatrix}$
Surface hardness	HRC55 or higher
Quenching depth	0.5mm or higher
Surface roughness	1.0Z or lower
Chamfer end (Damper insertion side)	 C0.2~C0.3 (or R0.2~R0.3)