

Friction Damper

FFD-30FS/FW/SS/SW Series

Fixed Type

Bi-Directional

Adjustable type

Uni-Directional

Self-adjusting

RoHS Compliant

●Products specification might be changed without notice.



Specifications

Model	Max. torque	Max. reverse torque	Model	Max. torque	Max. reverse torque
FFD-30FS-R102	0.1±0.01 (N·m)	Clockwise	FFD-30SS-R102	0.1±0.01 (N·m)	Clockwise
FFD-30FS-L102	(1±0.1 kgf·cm)	Counter-clockwise	FFD-30SS-L102	(1±0.1 kgf·cm)	Counter-clockwise
FFD-30FS-R502	0.5±0.05 (N·m)	Clockwise	FFD-30SS-R502	0.5±0.05 (N·m)	Clockwise
FFD-30FS-L502	(5±0.5 kgf·cm)	Counter-clockwise	FFD-30SS-L502	(5±0.5 kgf·cm)	Counter-clockwise
FFD-30FS-R103	1±0.1 (N·m)	Clockwise	FFD-30SS-R103	1±0.1 (N·m)	Clockwise
FFD-30FS-L103	(10±1 kgf·cm)	Counter-clockwise	FFD-30SS-L103	(10±1 kgf·cm)	Counter-clockwise
FFD-30FS-R153	1.5±0.15 (N·m)	Clockwise	FFD-30SS-R153	1.5±0.15 (N·m)	Clockwise
FFD-30FS-L153	(15±1.5 kgf·cm)	Counter-clockwise	FFD-30SS-L153	(15±1.5 kgf·cm)	Counter-clockwise
FFD-30FW-R153	1.5±0.15 (N·m)	Clockwise	FFD-30SW-R153	1.5±0.15 (N·m)	Clockwise
FFD-30FW-L153	(15±1.5 kgf·cm)	Counter-clockwise	FFD-30SW-L153	(15±1.5 kgf·cm)	Counter-clockwise
FFD-30FW-R203	2±0.2 (N·m)	Clockwise	FFD-30SW-R203	2±0.2 (N·m)	Clockwise
FFD-30FW-L203	(20±2 kgf·cm)	Counter-clockwise	FFD-30SW-L203	(20±2 kgf·cm)	Counter-clockwise
FFD-30FW-R253	2.5±0.25 (N·m)	Clockwise	FFD-30SW-R253	2.5±0.25 (N·m)	Clockwise
FFD-30FW-L253	(25±2.5 kgf·cm)	Counter-clockwise	FFD-30SW-L253	(25±2.5 kgf·cm)	Counter-clockwise
FFD-30FW-R303	3±0.3 (N·m)	Clockwise	FFD-30SW-R303	3±0.3 (N·m)	Clockwise
FFD-30FW-L303	(30±3 kgf·cm)	Counter-clockwise	FFD-30SW-L303	(30±3 kgf·cm)	Counter-clockwise

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

* Max. rotation speed

30rpm

* Max. cycle rate

13cycle/min

* Operating temperature

- 10 ~ 60°C
(90%RH)

* Body and cap material

POM

*Cap colour

R:Black L:White

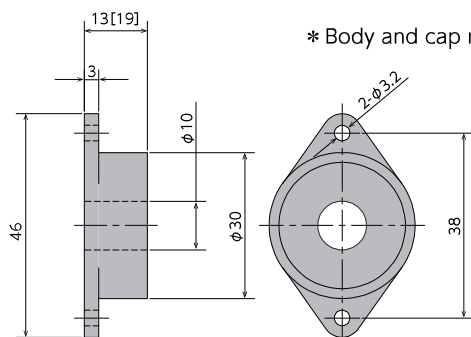
* Weight

FFD-30FS 17 ± 2g

FFD-30FW 31 ± 2g

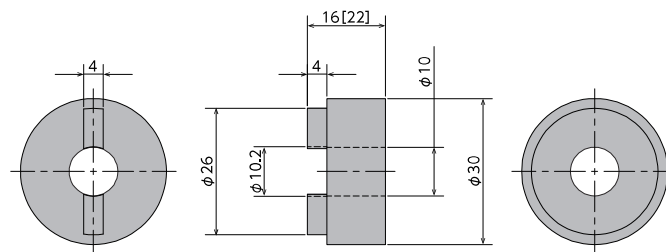
FFD-30SS 16 ± 2g

FFD-30SW 30 ± 2g



FFD-30FS-****

(Dimension of FFD-30FW-**** are in [mm])



FFD-30SS-****

(Dimension of FFD-30SW-**** are in [mm])

How to Use the Damper

1. The damper generates torque in both the clockwise and counter-clockwise directions. (A one-way clutch is built inside the damper.)
2. Please make sure that the shaft attached to a damper has a bearing, as the damper itself is not fitted with one.

Shaft's external dimensions	$\phi 10_{-0.03}^{+0.0}$
Surface hardness	HRC55 or higher
Quenching depth	0.5mm or higher
Surface roughness	1.0Z or lower
Chamfer end (Damper insertion side)	

3. It can be used as a free-stop for a load that is smaller than the rated torque.
4. Please refer to the recommended dimensions below when creating a shaft for attachment to the damper. Using a shaft outside of the recommended dimensions may cause the shaft to slip out.
5. 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.)