

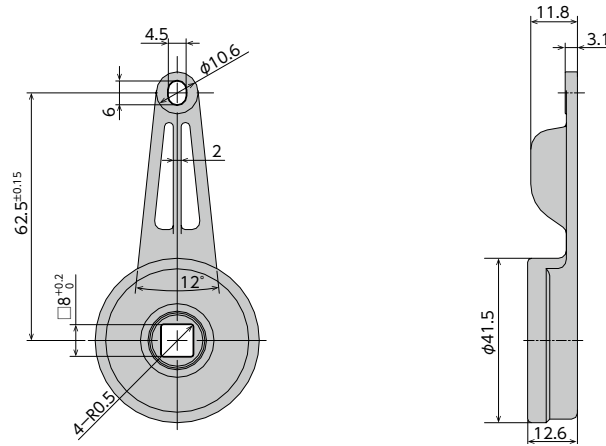
Rotary Damper

Fixed Type Bi-Directional Uni-Directional
Adjustable type Self-adjusting

FRT-T1 Series

RoHS Compliant

●Products specification might be changed without notice.



Specifications

Model	Rated torque	Damping direction
FRT-T1-303	3±0.6N·m (30±6 kgf·cm)	Both directions

Note 1) Rated torque measured at a rotation speed of 20rpm at 23°C

- * Max. rotation speed 50rpm
- * Max. cycle rate 10cycle /min
- * Operating temperature 0~50°C
- * Weight 74g
- * Main body material Zinc die-cast (ZDC)
- * Cap material Iron (SPFC)
- * Rotor (shaft) material Polyacetal (POM)
- * Oil tyep Silicone oil

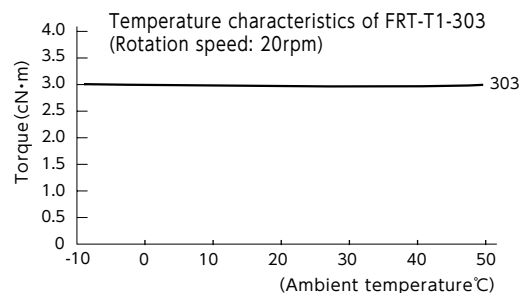
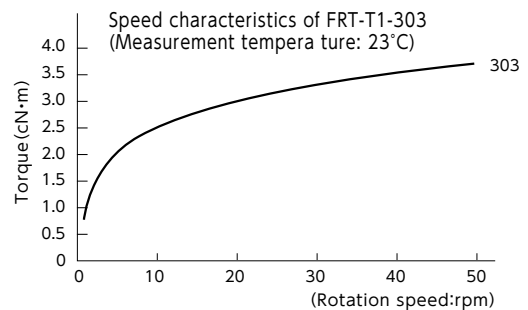
Damper Characteristics

1. Speed characteristics

A rotary damper's torque varies according to the rotation speed. In general, as shown in the graph to the right, the torque increases as the rotation speed increases, and the torque decreases as the rotation speed decreases. In addition, please note that the starting torque slightly differs from the rated torque.

2. Temperature characteristics

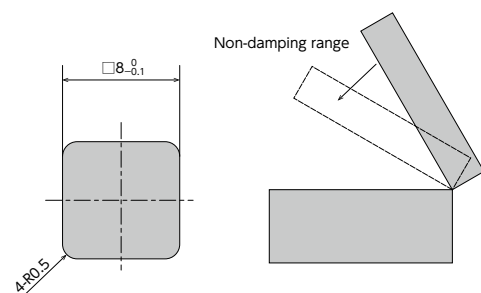
A rotary damper's torque varies according to the ambient temperature. In addition, as shown in the graph to the right, the torque decreases as the ambient temperature increases, and the torque increases as the ambient temperature decreases. This is because the viscosity of the silicone oil inside the damper varies according to the temperature. When the temperature returns to normal, the torque will return to normal as well.



How to Use the Damper

When using the damper, please ensure that a shaft with specified angular dimensions is inserted in the damper's shaft opening. Also, please ensure a tight fit between the shaft and the damper shaft opening.

Without a tight fit, the non-damping range becomes larger in a closing motion, etc., and it may not slow down properly. Please see the diagrams to the right for the recommended shaft dimensions for a damper.



(Recommended dimensions for the corresponding shaft)