

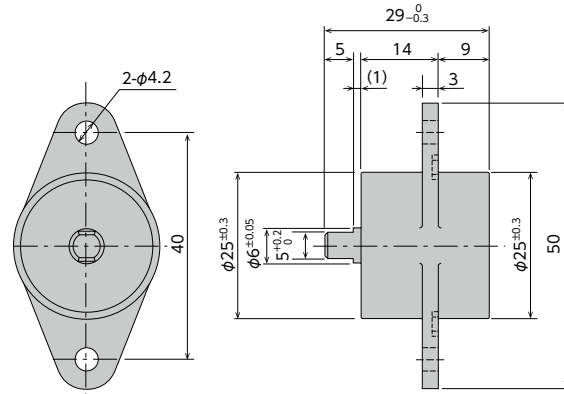
# Rotary Damper

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

## FRT-L1 Series

**RoHS Compliant**

●Products specification might be changed without notice.



## Specifications

Model	Rated torque
FRT-L1-202	$(200 \pm 40) \times 10^{-3} \text{N}\cdot\text{m}$ 2,000 $\pm$ 400 gf $\cdot$ cm
FRT-L1-302	$(300 \pm 60) \times 10^{-3} \text{N}\cdot\text{m}$ 3,000 $\pm$ 600 gf $\cdot$ cm

Note 1) Rated torque measured at a rotational speed of 20 rpm at 23°C  
 Note 2) Torque can be customized by changing the oil viscosity.  
 (See Customizable Torque Chart on page 178.)

- \* Max. rotational speed 50rpm
- \* Max. cycle rate 10cycle /min
- \* Operating temperature 0 ~50°C
- \* Weight 14.1g
- \* Main body material Polycarbonate (PC)
- \* Rotating shaft material Polyacetal (POM)
- \* Oil type 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.

