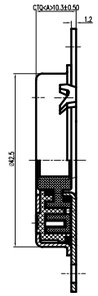
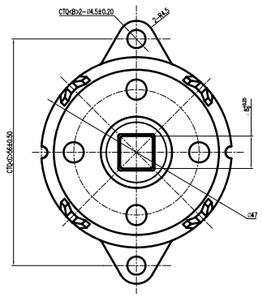
Model: PR-DM002-One/Two way

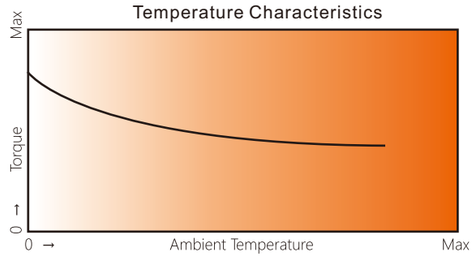




Cover Material	Body Material	Rotation Shaft	Oil	Static Storage Temperature
Steel (SPFC)	PA66+GF	POM	Silicone Oil	-10°C–50°C

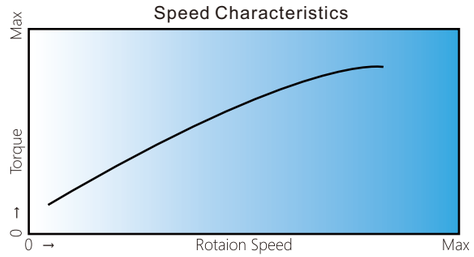
Maximum Frequency Of Use	Torque
12 cycles/min	1.0 - 2.0N.m

Rotary Damper Temperature & Speed Characteristics



Temperature Characteristics

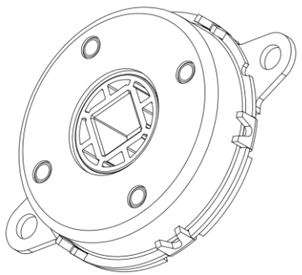
The torque of the rotary damper varies according to the temperature. The higher temperature for the lower torque; The lower temperature for the higher torque. When the temperature returns to normal, the damper characteristics will return to normal as well.

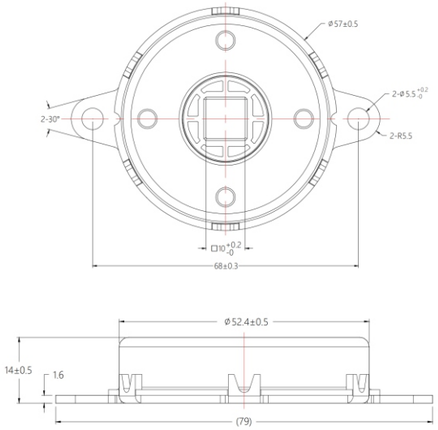


Speed Characteristics

The torque of the rotary damper varies according to rpm. In general, if the rpm goes up, the torque increases; If the rpm goes down, the torque decreases. In addition, please note that the starting torque slightly differs from the rated torque.
(The torque value indicated in the product data is measured at the rotation speed of 20r/min)

Model: PR-DM003-One/Two way





Cover Material	Body Material	Rotation Shaft	Oil	Static Storage Temperature
Steel (SPFC)	PA66+GF	POM	Silicone Oil	–10°C–50°C

Maximum Frequency Of Use	Torque
12 cycles/min	3.0 - 6.0N.m

Disc Damper

Torque calculation method in different scenarios

1.Controlled slow closing down. (From 90°- 0°)

Showed on the right figure, the flat starts to close down from position of less than 90 to horizon position.

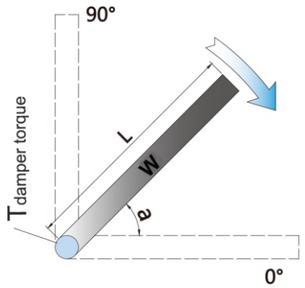
T=(W*g)*(L/2)*(cos a)

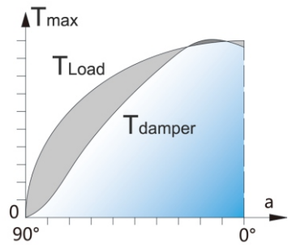
Example:

W=2KG, L=300mm

T max=(2*9.8)*(0.3/2)=2.94 Nm

T damper=0-3.0Nm





2.Damper and springs achieve soft opening. (0°~ 90°)

As the right picture shows, the flat open along the axis when the spring exerts force on it. The graph below shows the relation among spring Force T, gravity of flat W and the resistance of rotation of damper:

Example:

W=1 KG, L=200mm

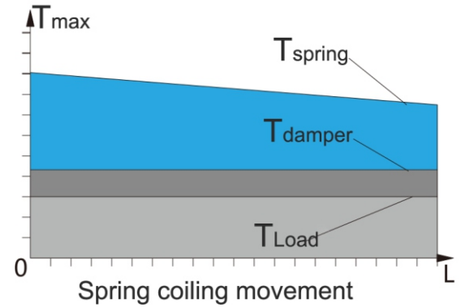
T load=1*9.8*(0.2/2)=0.98Nm

Tspring=1.2~0.5Nm

Tdamper≤Fspring-Fload

=(1.2-0.98)Nm~(0.5-0)Nm

=0.22~0.5Nm



Note:

T: Torque.

L/2: 1/2 the length of the cover from the pivot to the end(Center of gravity).

W: Actual weight of lid.

a: Max angle between the cover and horizontal position.

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