

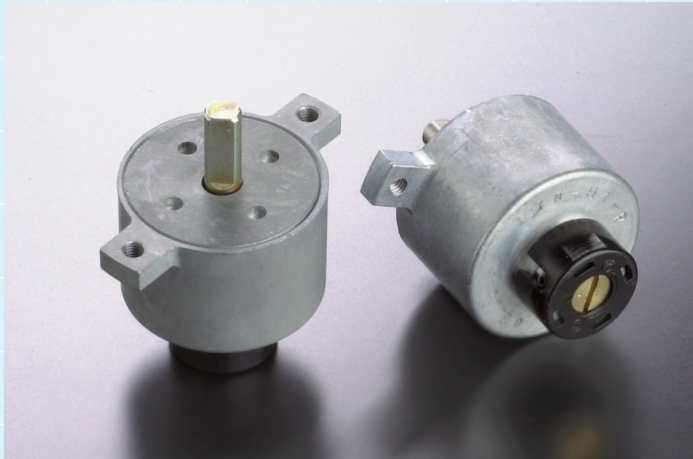


FYT/FYN-H1 (H2) Series

RoHS Compliant

Vane Damper [Bi-Directional] [Uni-Directional]

Adjustable



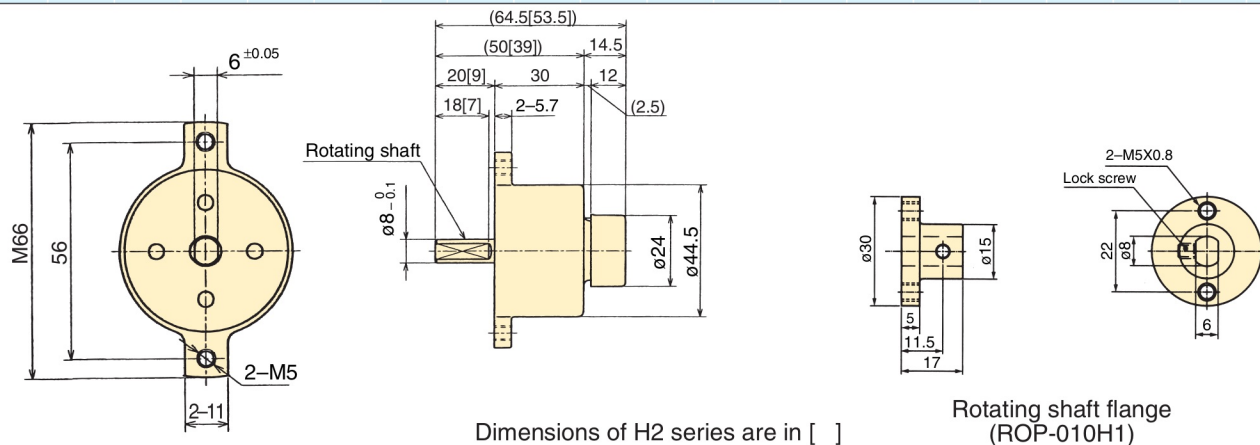
<Specifications>

Model	Max. torque	Reverse torque	Damping direction
FYT-H1(2)-104	10 N·m (100kgf·cm)	—	Both directions
FYN-H1(2)-R104	10 N·m (100kgf·cm)	0.5 N·m (5kgf·cm)	Clockwise
FYN-H1(2)-L104	10 N·m (100kgf·cm)	0.5 N·m (5kgf·cm)	Counter-clockwise

Note) Measured at 23°C±2°C

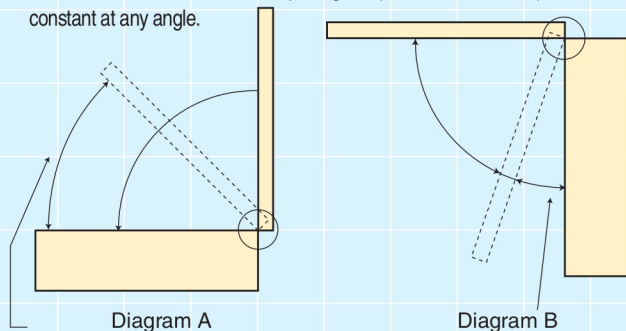
The FYT/N-H2 series has shorter shaft length.

Max. angle	105°
Operating temperature	-5 50°C
Weight	H1:240±10g, H2:235±10g
Body and cap material	Zinc die-cast (ZDC)
Rotating shaft material	S25C
Oil type	Silicone oil



How to Use the Damper

1. The uni-directional FYN-H1 is designed to generate a large torque just before a lid closing from a vertical position, as shown in Diagram A, comes to a full closure. When a lid is closed from a horizontal position, as shown in Diagram B, a strong torque is generated just before the lid is fully closed, causing the lid to not close properly. Torque is generated in both clockwise and counter-clockwise directions in the FYT-H1 series. Unlike the FYN-H1 series, it does not have a fixed orifice for adjusting torque. Therefore, torque remains constant at any angle.



The damper torque becomes larger, preventing the lid from slowing down.

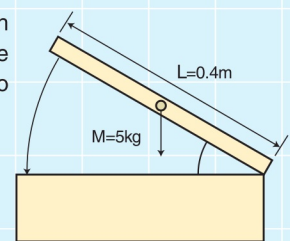
The damper torque becomes larger, preventing the lid from closing completely.

The angle in which the damper torque becomes large can be customized by modifying the inside orifice.

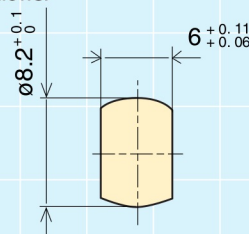
2. When using a damper on a lid, such as the one shown in the diagram, use the following selection calculation to determine the damper torque.

Example) Lid mass M : 5 kg
Lid dimensions L : 0.4m
Load torque : $T = 5 \times 0.4 \times 9.8$
 $= 9.8 \text{ N·m}$

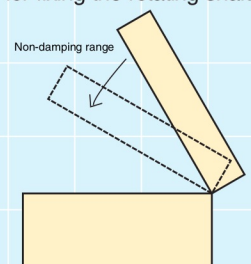
Based on the above calculation, FYN-H1-104 is selected.



3. When connecting the rotating shaft to other parts, please ensure a tight fit between them. Without a tight fit, the lid will not slow down properly when closing. The corresponding dimensions for fixing the rotating shaft are as follows.



<Recommended dimensions for mounting a rotating shaft>

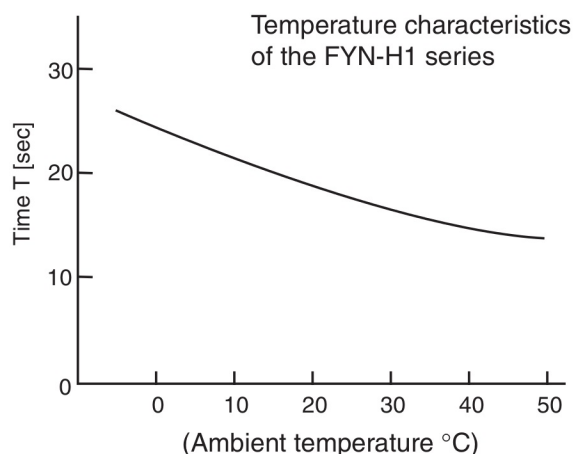




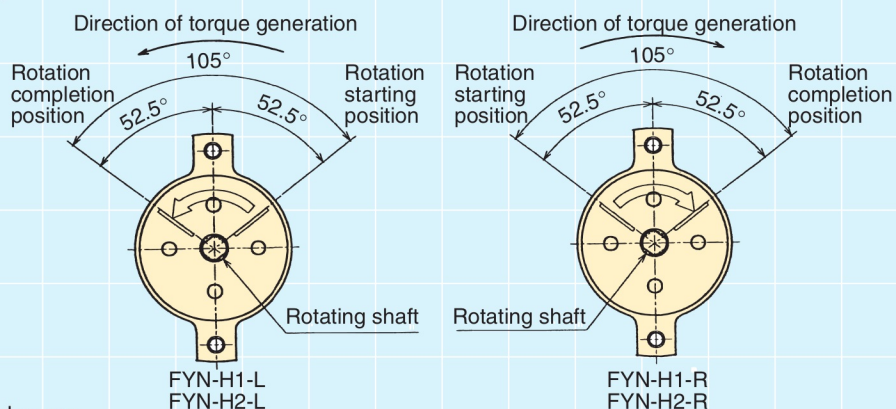
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Vane Damper [Bi-Directional] [Uni-Directional] Adjustable

4. Damper characteristics vary according to the ambient temperature. In general, the damper characteristics become weaker as the temperature increases, and become stronger as the temperature decreases. This is because the viscosity of the oil inside the damper varies according to the temperature. When the temperature returns to normal, the damper characteristics will return to normal as well. The changes in the time it takes for the lid to close are shown in the graph to the right.

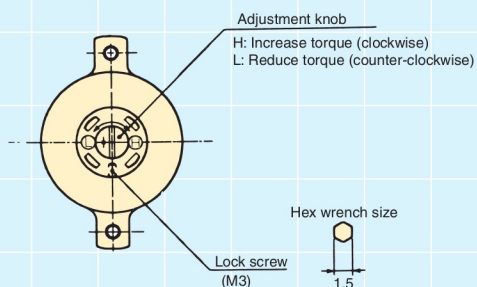


5. The damper's working angle is $\pm 52.5^\circ$ with respect to the attachment flange, as shown below. Please determine where to attach it according to your needs. Also, rotating the damper beyond this angle will cause damage to the damper. Please ensure that an external stopper is in place.



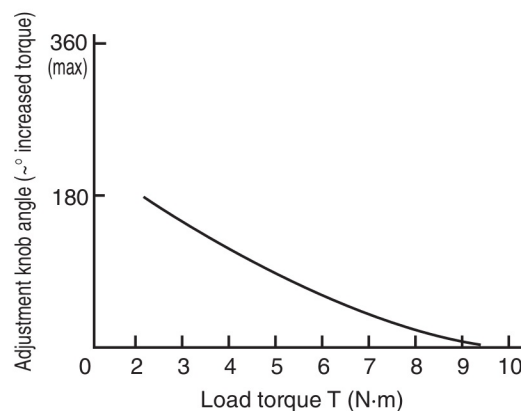
6. How to adjust the damper

- 1) In the FYT-H1 (H2) and FYN-H1 (H2) series, the amount of generated torque can be adjusted with the adjustment knob located towards the rear of the main body. Insert a screwdriver in the minus groove to turn.
- 2) Turn the adjustment knob in the H direction to increase torque.
- 3) Turn the adjustment knob in the L direction to reduce torque.
- 4) Do not turn the adjustment knob more than 360° . Turning the knob more than 360° causes the adjustment shaft to slip out, resulting in oil leakage.
- 5) Once the adjustment is complete, secure with a lock screw. Using the damper without securing it may result in fluctuating torque.



<Range of torque adjustment>

Please refer to the graph below for the relationship between torque and the adjustment knob.



7. The direction in which torque is generated varies according to the model. Please select the appropriate model for your purpose.