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› PATIKIL 5-Inch Motorized Duct Damper Instruction Manual

PATIKIL pta240909tt001528

PATIKIL 5-Inch Motorized Duct Damper Instruction Manual

Model: pta240909tt001528

1. INTRODUCTION

The PATIKIL 5-inch Motorized Duct Damper is designed for air volume regulation within HVAC ventilation systems. Constructed from durable 201 stainless steel, this damper provides precise control over airflow, helping to balance air distribution and prevent unwanted backdrafts. Its motorized mechanism allows for adjustable angles up to 90 degrees, contributing to energy efficiency and comfortable indoor environments.

Kitchen**Bathroom**

Suitable for HVAC Ventilation System

Garge**Living Room**

This visual illustrates common installation environments for the duct damper, including kitchens, bathrooms, garages, and living rooms, demonstrating its versatility in HVAC ventilation systems.

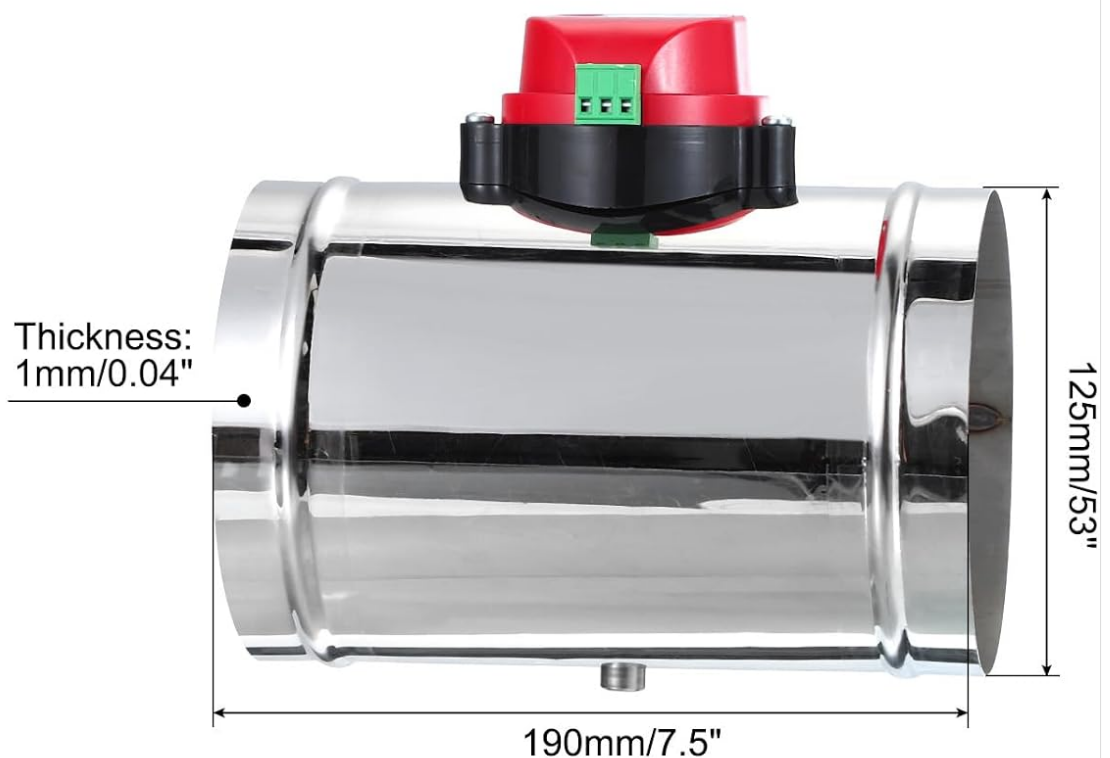
2. PRODUCT SPECIFICATIONS

Feature	Detail
Color	Silver Tone
Material	201 Stainless Steel
Power Supply	AC 24V
Adjustable Angle	90 Degree
Inner Diameter of Interface	125 mm / 5 Inch

Feature	Detail
Overall Size (L*T)	190 x 1 mm / 7.5 x 0.04 inch
Item Weight	820 g
Recommended Temperature Range	-10 to 70 centigrade

PRODUCT SIZE

Damper Normally Closes
Automatically open when powered



This diagram illustrates the key dimensions of the 5-inch duct damper, including its 125 mm (5 inch) inner diameter, 190 mm (7.5 inch) overall length, and 1 mm (0.04 inch) thickness.

3. SETUP AND INSTALLATION

Installation of the PATIKIL Motorized Duct Damper is straightforward. Follow these steps for proper setup:

1. **Prepare the Duct:** Ensure the duct opening is clean and free of debris. The damper is designed for a 5-inch (125 mm) inner diameter duct.
2. **Insert the Damper:** Simply slide the volume damper into the pipe you are attaching it to.
3. **Secure the Damper:** Fix the damper in place using a pipe clamp and tape (*pipe clamp and tape are not included*). Ensure a secure and airtight connection to prevent air leakage.
4. **Wiring the Motor:** The damper motor requires an AC 24V power supply. It features three terminals: a neutral terminal, an 'on' terminal, and an 'off' terminal.
 - To **open** the damper, apply 24VAC to the 'on' terminal.
 - To **close** the damper, apply 24VAC to the 'off' terminal.
 - **Important:** The damper requires power to both open and close. It does not have a default 'home' position when de-energized; it will remain in its last commanded state.

• **Fully adjustable for effective control over the controlled environment, offering benefits of comfort, energy efficiency, and noiseless operation.**



A detailed view of the control unit, displaying the wiring diagram with terminals for neutral, open, and close, along with operational specifications such as torque, rotate angle, power consumption, and power supply (AC 24V).



This image demonstrates the accessible wiring terminals for straightforward connection and highlights the silicone sealing ring designed to prevent air leakage and backdraft.

4. OPERATING INSTRUCTIONS

Once installed and wired, the PATIKIL Motorized Duct Damper provides convenient and precise control over airflow in your HVAC system.

- **Airflow Control:** Use your control system (e.g., thermostat, switch, or automation system) to send the appropriate AC 24V signal to the 'on' or 'off' terminals to open or close the damper.
- **Adjustable Angle:** The damper can be adjusted up to 90 degrees, allowing for fine-tuning of air volume. The motorized mechanism ensures smooth and noiseless operation.
- **Maintaining Position:** The damper will hold its last commanded position even if power is removed from the

control terminals, as long as the main AC 24V supply to the motor is maintained. If the main power is lost, the damper will remain in its last position.

5. MAINTENANCE

To ensure optimal performance and longevity of your PATIKIL Motorized Duct Damper, consider the following maintenance guidelines:

- **Regular Cleaning:** Periodically inspect the damper and surrounding ductwork for dust, debris, or obstructions. Clean the stainless steel surface with a soft cloth and mild detergent if necessary. Avoid abrasive cleaners.
- **Check for Obstructions:** Ensure that nothing is impeding the damper blade's movement within the duct.
- **Temperature Range:** Operate the damper within the recommended temperature range of -10 to 70 degrees Celsius to prevent damage to the motor or sealing components.
- **Seal Inspection:** Occasionally check the silicone sealing ring for any signs of wear or damage that could compromise its backdraft prevention capabilities.

6. TROUBLESHOOTING

If you encounter issues with your PATIKIL Motorized Duct Damper, refer to the following troubleshooting tips:

- **Damper Not Opening or Closing:**
 - Verify that the AC 24V power supply is correctly connected and active.
 - Check the wiring to the 'on' and 'off' terminals. Ensure that the correct terminal is receiving power for the desired action (open or close).
 - Confirm that your control system is sending a continuous 24VAC signal to the appropriate terminal for the duration of the opening or closing cycle.
- **Damper Cycling Constantly (Opening and Closing Repeatedly):**
 - This often indicates an issue with the control signal or power supply stability. Ensure the 24VAC supply is stable and not fluctuating.
 - Review the logic of your control system to ensure it is sending clear, consistent signals to the damper's 'on' and 'off' terminals.
 - Check for loose wiring connections that might cause intermittent signals.
- **Damper Stuck or Not Moving Smoothly:**
 - Inspect the interior of the duct and the damper blade for any physical obstructions (e.g., debris, insulation) that might be preventing movement.
 - Ensure the damper is properly seated and aligned within the duct.
- **No English Instructions on Product Label:**
 - Refer to this instruction manual for all wiring and operational details. The wiring diagram provided in Section 3 and on the product itself (image PT02) should be followed.

7. WARRANTY AND SUPPORT

Specific warranty terms and direct support contact information for the PATIKIL 5-inch Motorized Duct Damper are not provided in the available product data. For detailed warranty information, technical support, or service inquiries, please contact PATIKIL directly through their official website or the retailer from whom the product was purchased.