Pressure switch

Overview

This pressure switch setup is designed to detect when the kitchen hood extract fan is running and automatically signal the ventilation unit to switch into Overpressure mode. This ensures optimal ventilation performance and air balance, especially during cooking activities that generate excess humidity or odors.

The system detects positive or negative pressure in the duct, depending on the location of the extract fan, and uses this signal to control the ventilation unit accordingly. Sensitivity is adjustable to suit different duct configurations and fan power levels.

Installation instructions

1. Safety Instructions
    - Always power off the system before wiring.
    - Ensure ducts are sealed properly to avoid pressure leaks.

2. Drill & Install Pressure Tube
    - Drill an 8mm hole into the duct connected to the kitchen hood.
    - Attach the pressure tube to the duct using two screws.
    - Ensure the arrow on the air tube matches the direction of the airflow in the duct.

3. Determine Pressure Type Based on Fan Position
    - If the extract fan is before the pressure tube. Positive pressure is created.
        - Connect the air hose to P1 (+) on the pressure switch.
    - If the extract fan is after the pressure tube:
        - Negative pressure is created.
        - Connect the air hose to P2 (-) on the pressure switch.

4. Prepare the Pressure Switch
    - Remove the protective cap from the pressure tube port on the pressure switch (if present).
    - Remove the top cover of the pressure switch.
    - Connect a 2-core wire from the ventilation unit to terminals 2 and 3 on the pressure switch. (Polarity does not matter.)

5. Connect to the Ventilation Unit
    - On the ventilation unit, connect the wires to the following terminals:
    - OVERPRESSURE-IN-1
    - GND (Polarity does not matter.)

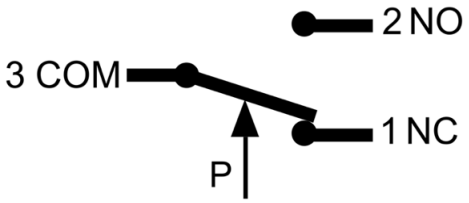
6. Adjust Pressure Sensitivity (if needed)
    - Turn the white dial on the pressure switch to set sensitivity: 20 Pa = very sensitive, 300 Pa = less sensitive
    - Recommended setting: Above 50 Pa, depending on duct pressure while kitchen hood is running.
    - The pressure switch must trigger even when the hood runs at minimum speed.

7. Testing the Setup
    - When the pressure switch is triggered, you will hear a slight click.
    - Start the kitchen hood and verify that the ventilation unit switches to Overpressure mode (there is 10 second delay)

Specifications

Pressure range	20 – 300 Pa
Electrical rating	1.5 A (0.4), 250 VAC
Protection class	IP 54
Operating temperature	-20 °C to +85 °C
Electrical connection	6.3 x 0.8mm clamp
Mechanical life	10,000,000 switches

Electrical diagram



Dimensions