QFM81.2, QFM81.21 Duct Hygrostats

Product Description

These instructions explain how to install a QFM81.2 or QFM81.21 Duct Hygrostat.

Product Numbers

QFM81.2 Duct Hygrostat with external setpoint

QFM81.21 Duct Hygrostat

Required Tools

- Screwdriver
- Electric drill
- 7 mm Wrench

Expected Installation Time

15 minutes

Installation

Air Duct Mounting

If the duct hygrostat is used for control, mount in the exhaust air duct after the room to be controlled.

If the duct hygrostat is used for monitoring the maximum or minimum humidity level, mount in the supply air duct.

Mounting Positions

The immersion sensor stem must be mounted either horizontally or vertically with the stem pointing downward. Do not mount with the stem pointing upward. (See Figure 1.)
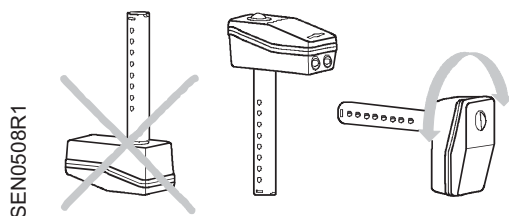

Figure 1. Acceptable Mounting Positions.

Ensure that the air to be measured is sufficiently mixed at the point of measurement for accurate humidity measurements.

The mounting orientation is dependent on the air velocity in the ductwork: at <5 m/s, the holes in the stem must face the airflow; at >5 m/s, they must be perpendicular to the direction of airflow. (See Figure 2.)
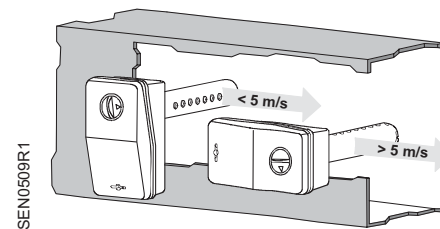

Figure 2. Mounting Orientations.

Minimum Immersion Length

NOTE: When mounting the hygrostat in air ducts, the minimum immersion length of the stem is 5.12 inches (130 mm).

The mounting flange supplied with the unit allows the immersion length to be adjusted between 5.12 inches (130 mm) and 6.14 inches (156 mm).
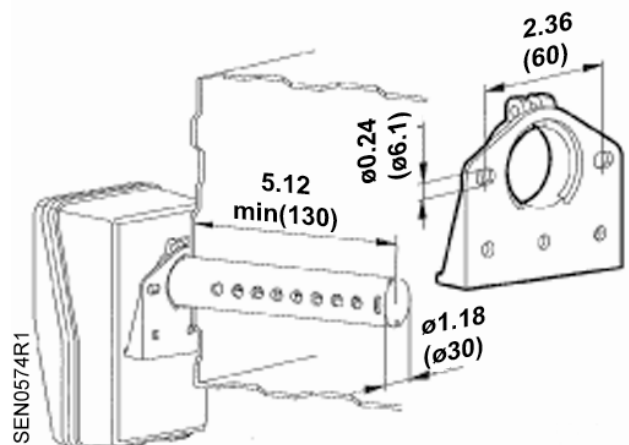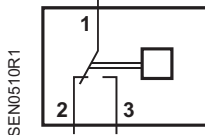

Figure 3. Mounting Flange.

Wall Mounting

The hygrostat should be mounted:

- on an inner wall approximately 4.9 feet (1.5 m) above the floor, and at least 1.6 feet (0.5 m) from the closest adjoining wall.

- where there is a natural circulation of room air (do not mount near drafts, in corners, behind curtains, too close to doors and windows, or on an outer wall).

- away from sources of heat and refrigeration (radiators, computers, televisions, concealed heating pipes, hot or cold water pipes).

- where it is not exposed to direct sunlight.

NOTE: You must use the mounting flange supplied with the hygrostat for wall mounting.

Wiring

1. Using a flat-blade screw driver, loosen the mounting screw and remove the cover to expose the wiring terminals.

2. Wire the device as required. See Figure 4.

1 – 2 Humidification

1 – 3 Dehumidification

Figure 4. Wiring Connections.

Calibration

If humidity is known and field calibration is needed, then the device may be set to known humidity. Use a 7 mm wrench to adjust until an audible click is heard. This will calibrate the unit.
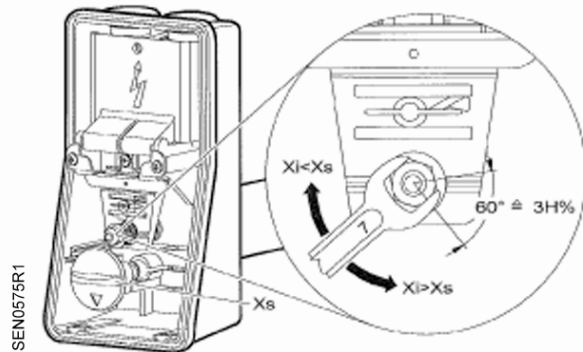

Figure 5. Humidity Calibration.

Replace the cover and tighten the mounting screw with a flat-blade screwdriver.

The installation is now complete.

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