

50027910-001 Differential Pressure Switch

INSTALLATION INSTRUCTIONS

APPLICATION

The Honeywell differential pressure switch senses changes in duct air pressure to confirm air movement, providing a safeguard that airflow is present during the operation of installed IAQ equipment, including the TrueSTEAM Humidification System.

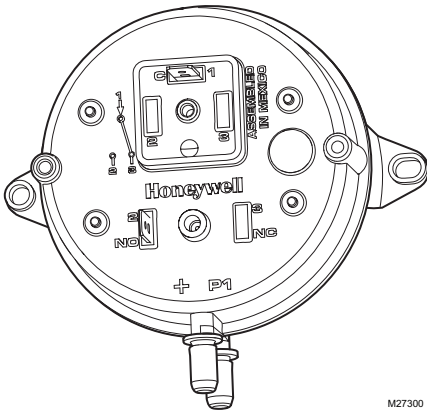




Fig. 1. Pressure switch.

Table 1. Parts Included.

Item	Quantity
Rubber Grommet  M27302	2
Tubing Fitting Elbow  M27323	2
Tubing, 1/4 in. ID	10 ft
Differential Pressure Switch (Fig. 1)	1
Screws, #8 x 3/4 in. sheet metal	2
Terminal Adaptor	2

SPECIFICATIONS

SPST: normally open, snap-acting contacts

Pressure setpoint contacts: change at 0.04 in. W.C.

Electrical

5 amp resistive @ 24VAC

One common (C), One Normally Open (NO) quick-connect terminals

Operating Temperature: -40F to 190F (-40C to 88C)

Pressure Sample Taps

Black positive pressure tap. 1/4 in. outside diameter

Grey negative pressure tap. 1/4 in. outside diameter

Use with 1/4 in. inside diameter tubing (10 ft provided)

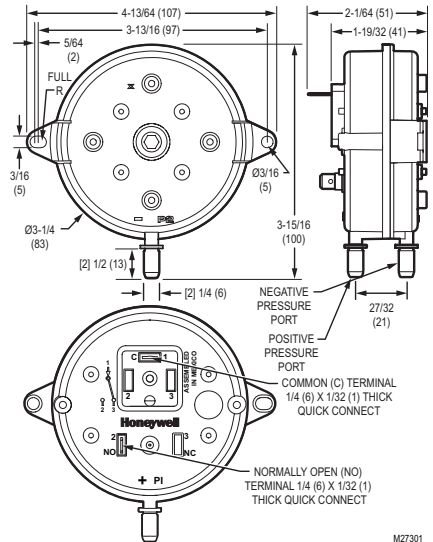


Fig. 2. Pressure switch dimensions.

Mounting position: mount vertically (upright) with Honeywell logo right-side up.

Approvals

Underwriters Laboratories Inc. Approved: MP2168

Canadian Underwriter Laboratories Inc. Approved:

MP2168



INSTALLATION

- Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition. This control must be installed in accordance with the local code and regulations.
- Check ratings and descriptions given in the Specifications section to ensure the product is suitable for your application.
- Installer must be a trained, experienced service technician.

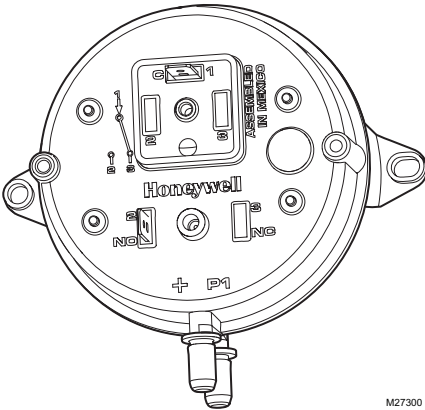
IMPORTANT

Do not install the switch in an area where temperature exceeds rating of -40F to 190F (-40C to 88C)

1. Disconnect power from the TrueSTEAM before installing.
2. Mount the switch vertically with pressure connectors facing down, using provided self-tapping screws to secure the switch to the duct.

IMPORTANT

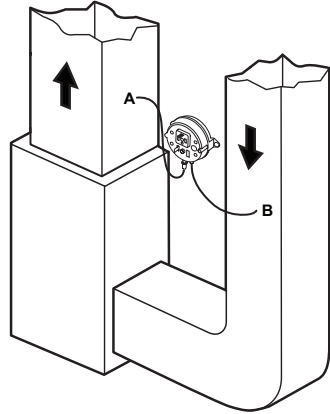
Calibration accuracy requires that the switch be mounted vertically (as pictured in Fig. 3).



M27300

Fig. 3. Pressure switch—oriented vertically.

3. The return duct is recommended, however the switch can also be mounted to the supply duct.



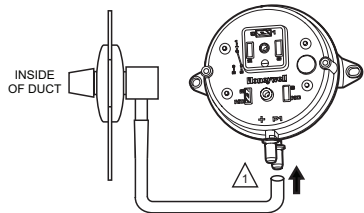
SUPPLY DUCT INSTALL - AIR LINE ONLY TO TAP A, CONNECTED TO THE + PORT ON THE AIR FLOW SWITCH
RETURN DUCT INSTALL - AIR LINE ONLY TO TAP B, CONNECTED TO THE - PORT ON THE AIR FLOW SWITCH
SUPPLY/RETURN DUCT INSTALL - AIR LINE CONNECTED TO BOTH THE + AND - PORTS ON THE AIR FLOW SWITCH
 M27303

Fig. 4. Mounting the pressure switch.

4. Cut a 3/4-in. diameter hole in the duct within 10 feet of the switch to ensure the provided tubing reaches the pressure tap elbow.
5. Insert the grommet into the duct hole, then insert the tube elbow into the grommet.
6. Connect the tubing to the elbow fitting and the other end to the applicable pressure connection on the switch:
 - a. Black connection if installed on the supply
 - b. Grey connection if installed on the return

IMPORTANT

With low-speed airflow or variable speed systems it is recommended to run tubing to both the supply and return ducts.



⚠️ CONNECT TUBING TO + CONNECTION IF PRESSURE TAP IS MOUNTED TO SUPPLY DUCT. CONNECT TO - IF PRESSURE TAP IS MOUNTED TO RETURN DUCT.
 M27304

Fig. 5. Install tubing.

NOTE: You may cut the tubing to fit the connection length between the elbow fitting and switch. It is also recommended to secure the hose to existing structures to avoid accidental disconnection.

WIRING

Fig. 6 shows a close-up of the pressure switch wiring. This applies to all wiring diagrams (Fig. 7-11).

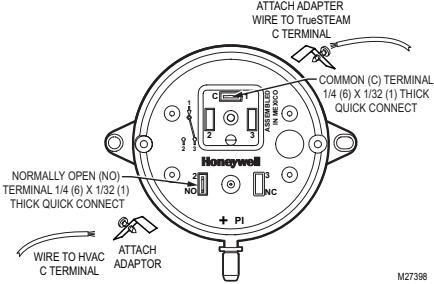


Fig. 6. Close-up of pressure switch wiring.

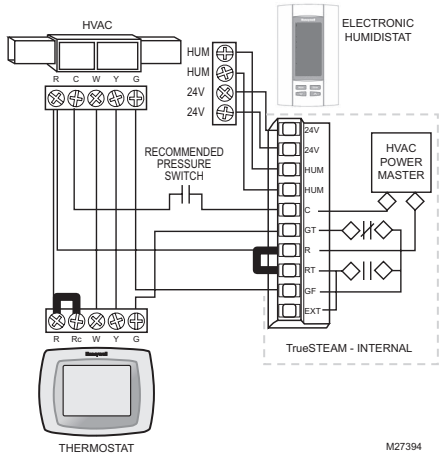


Fig. 8. Wiring with electronic humidistat.

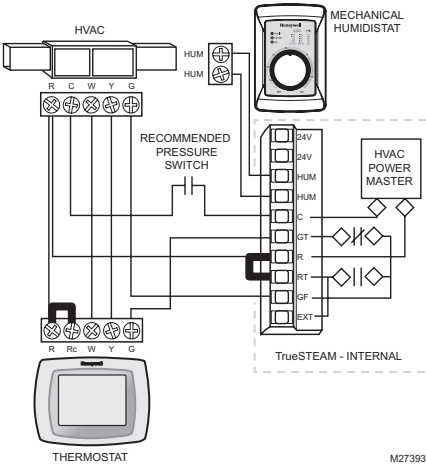


Fig. 7. Wiring with mechanical humidistat.

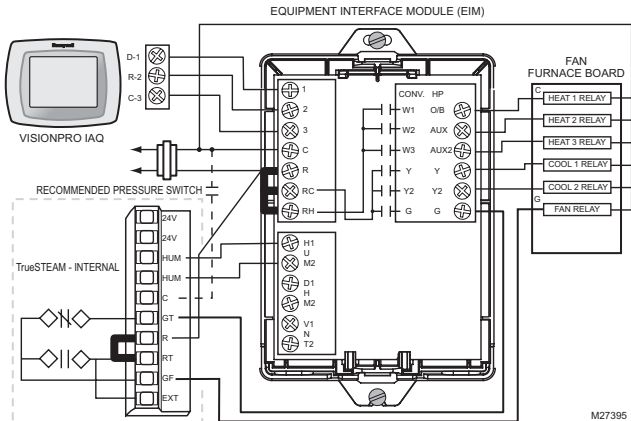


Fig. 9. Wiring with VisionPRO IAQ™ for independent fan control.

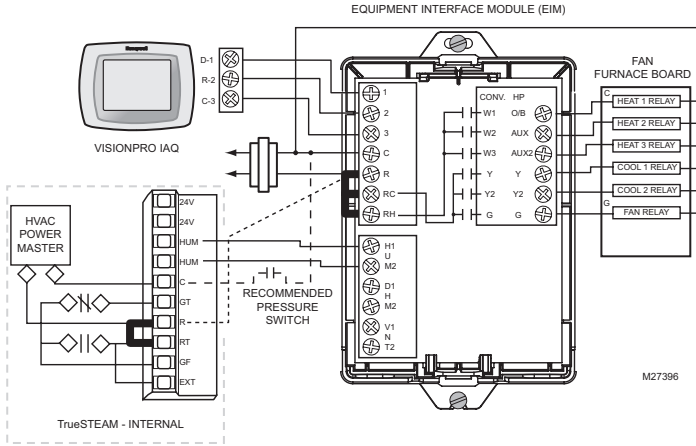


Fig. 10. Wiring with VisionPRO IAQ™ for operation dependent on HVAC power.

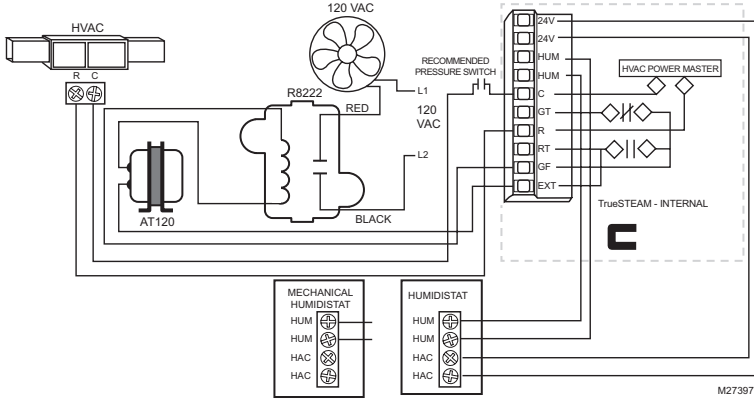


Fig. 11. Wiring with a blower fan dedicated to the TrueSTEAM.

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