Honeywell

VisionPRO® IAQ
Total Home Comfort System

FEATURES

- **Large, clear display with backlight shows the current and set temperature and time—even in the dark.**

- **Touchscreen interaction**

- **Real-time clock keeps time during power failures and automatically updates to daylight savings.**

- **Change/check reminders let you know when to service or replace filters.**

- **Various Hold options allow you to override the program schedule, as desired.**

- **Controls humidification to increase homeowner comfort while protecting woodwork and furnishings.**

- **Controls dehumidification using air conditioner with high or low speed fan or a whole house dehumidifier.**

- **Controls ventilation with other HRV, ERV, or Freshair damper. Vent on demand and automatically using patented advanced ventilation control.**

- **Advanced heat pump control featuring balance point plus 2°F droop to increase homeowner comfort.**

APPLICATION

The VisionPRO® IAQ Total Home Comfort System features an effortless, 7-Day programmable touchscreen thermostat that provides control of temperature, humidification, dehumidification, and ventilation.

Contents

Honeywell
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AMERICAN LUNG ASSOCIATION®
HEALTH HOUSE®
Raising the Standards for Healthier Indoor Environments.

ENERGY STAR

68-0287-1

SPECIFICATIONS

Thermostat Description:

Feature	Description
Powering method	• Common wire only
System types (up to 4 heat/2 cool)	• Gas, oil or electric heat with air conditioning • Warm air, hot water, high-efficiency furnaces, heat pumps, steam and gravity • Heat only with fan • Cool only
Changeover	Manual or Auto changeover selectable
System setting	Heat-Off-Cool-Auto
Fan setting	Auto-On-Circ

Electrical Ratings:

Terminal	Voltage (50/60 Hz)	Running Current
W1 Heating	20 - 30 Vac	.02 - 1.0A
W2/Aux Heating	20 - 30 Vac	.02 - 1.0A
W3/Aux2 Heating	20 - 30 Vac	.02 - 1.0A
Y Cooling	20 - 30 Vac	.02 - 1.0A
Y2 Cooling	20 - 30 Vac	.02 - 1.0A
G Fan	20 - 30 Vac	.02 - 1.0A

Temperature Setting Range:
Heating: 40°F to 90°F (4.5°C to 32°C).
Cooling: 50°F to 99°F (10°C to 37°C).

Operating Ambient Temperature:
VisionPRO® IAQ Thermostats: 0°F to 120°F (-18°C to 49°C).
THM5421C1008: -30°F to 150°F (-34°C to 66°C).
C7089U1006: -40°F to 120°F (-40°C to 49°C).
C7189U1005: 45°F to 88°F (7°C to 32°C).

Shipping Temperature:
VisionPRO® IAQ Thermostats: -30°F to 150°F (-34°C to 66°C).
THM5421C1008: -30°F to 150°F (-34°C to 66°C).

Operating Relative Humidity (Non-condensing):
VisionPRO® IAQ Thermostats: 5% to 90%.
THM5421C1008: 5% to 90%.
C7089U1006: 5% to 95%.
C7189U1005: 5% to 95%.

Humidification Setting Range:
Heating: 10% to 60% RH.

Dehumidification Setting Range:
Heating: 40% to 80% RH.

Humidity Display Range:
0% to 99%.

Cycle Rates (at 50% Load):
Heating: Selectable 1 - 12 cycles per hour.
Cooling: Selectable 1 - 6 cycles per hour.

Finish:
VisionPRO® IAQ Thermostats: Premier White® color.
THM5421C1008: Premier White® color.
C7189U1005 Wall Mount Remote Indoor Sensor: Premier White® color.

Clock Accuracy: +/- 1 minute per year.

Resistance Characteristics of Remote Sensors:
C7089U1006 Outdoor Sensor: Negative temperature coefficient (NTC) means that resistance decreases as the temperature increases. See Table 12 in the Operation section for sensor resistance characteristics.
C7189U1005 Remote Indoor Sensor: Negative temperature coefficient (NTC), means that resistance decreases as the temperature increases. See Table 13 in the Operation section for sensor resistance characteristics.

Cool Indication:
VisionPRO® IAQ Comfort Systems show "Cool On" on the thermostat screen when Cool is activated.

Heat Indication:
VisionPRO® IAQ Comfort Systems show "Heat On" on the thermostat screen when Heat is activated.

Auxiliary Heat Indication:
VisionPRO® IAQ Comfort Systems show "Aux. Heat On" on the thermostat screen when Auxiliary Heat is activated.

Calibration:
C7089U1006, C7189U1005 and VisionPRO® IAQ Comfort Systems are factory-calibrated and require no field calibration.

Interstage Differential:
VisionPRO® IAQ Comfort Systems operate with droopless control. Once the thermostat senses that 1st stage is running at 90% capacity, the thermostat energizes 2nd stage.

Mounting Means:
VisionPRO® IAQ Comfort System: Thermostat mounts directly on the wall in the living space using mounting screws and anchors provided. Fits a vertical or horizontal 2 x 4 in. junction box.
THM5421C1008 Equipment Interface Module (EIM) mounts on HVAC equipment or on a wall in the equipment room.
C7089U1006 Outdoor Sensor: Mounts outside of living space with mounting clip and screws provided.
C7189U1005 Remote Indoor Sensor: Mounts directly on the wall using mounting screws and anchors provided.

Cover Plate:
32003796-001 Cover Plate is used to cover marks left on the wall by the old thermostat.

Dimensions:
VisionPRO® IAQ Comfort System: see Fig. 1.
THM5421C1008: see Fig. 2
C7089U1006 Outdoor Sensor Mounting Clip: see Fig. 3.
32003796-001 Cover Plate: see Fig. 4.
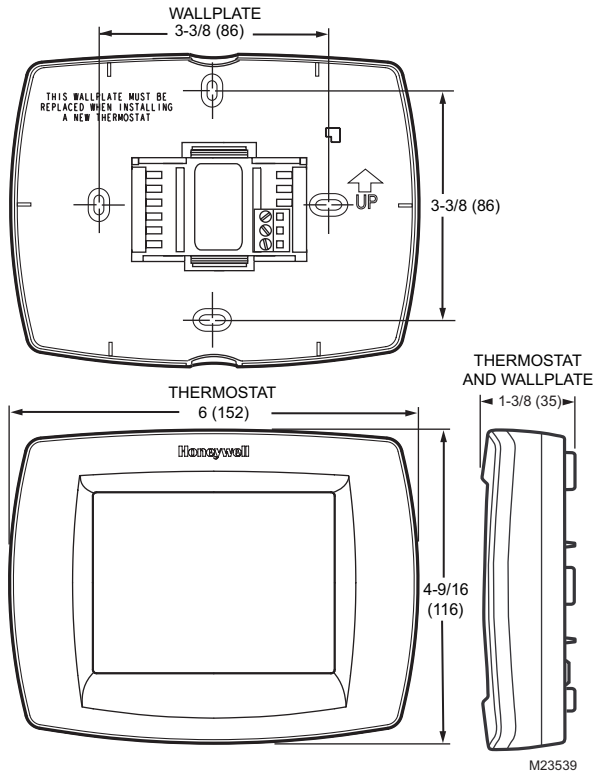C7189U1005 Remote Indoor Sensor: see Fig. 5.

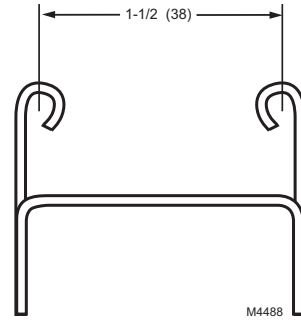**Fig. 1. VisionPRO® IAQ Comfort System dimensions in in. (mm).**

Fig. 2. THM5421C1008 Equipment Interface Module dimensions in in. (mm).

Fig. 3. C7089U1006 Outdoor Sensor Mounting Clip dimensions in in. (mm).
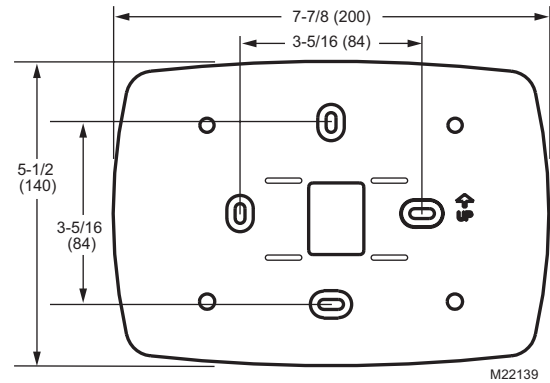
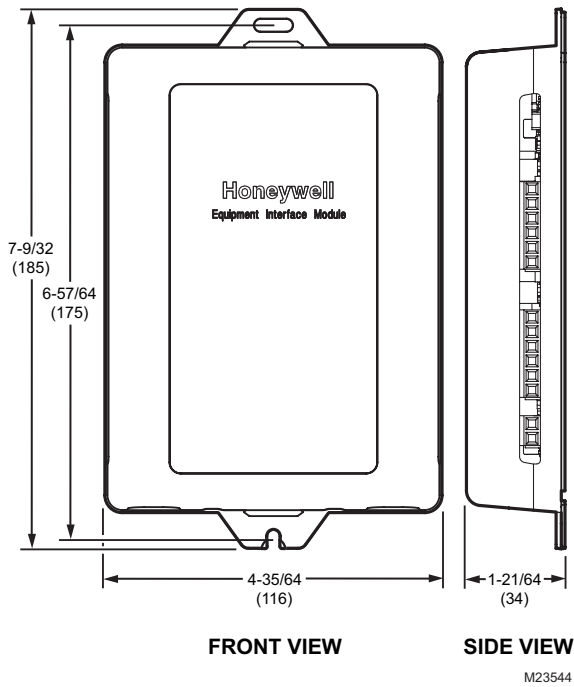**Fig. 4. 32003796-001 Cover Plate dimensions in in. (mm).**
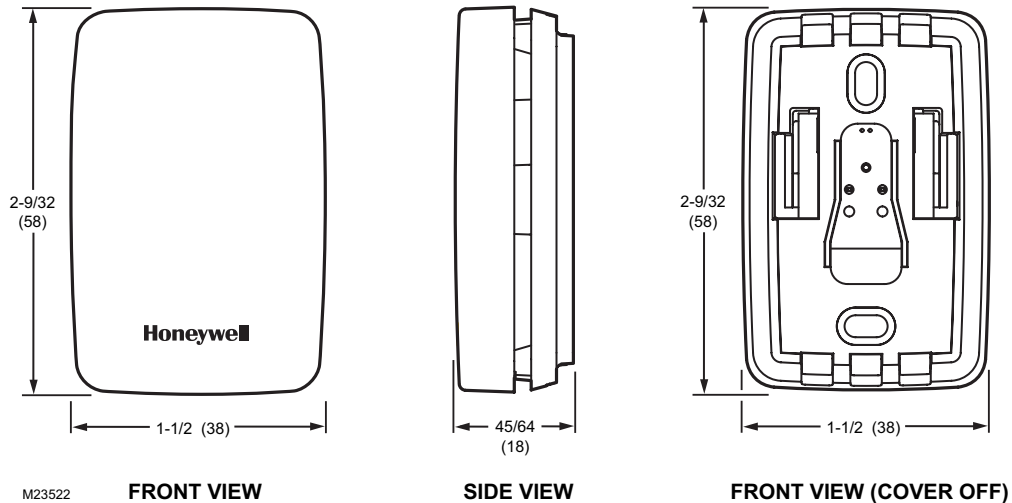
Fig. 5. C7189U1005 Remote Indoor Sensor dimensions in in. (mm).

INSTALLATION

When Installing this Product...

1. Read these instructions carefully. Failure to follow the instructions can damage the product or cause a hazardous condition.
2. Check the ratings given in the instructions to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After completing installation, use these instructions to verify the product operation.

Selecting Location

Install the thermostat about 5 ft. (1.5m) above the floor in an area with good air circulation at average temperature. See Fig. 6.
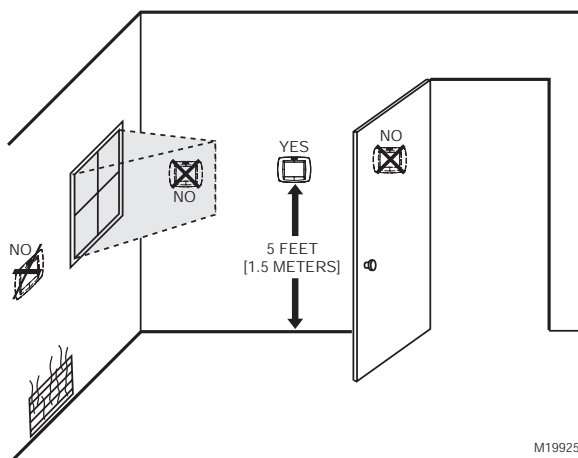

Fig. 6. Selecting thermostat location.

Do not install the thermostat where it can be affected by:
— Drafts or dead spots behind doors and in corners.
— Hot or cold air from ducts.
— Radiant heat from sun or appliances.
— Concealed pipes and chimneys.
— Unheated (uncooled) areas such as an outside wall behind the thermostat.

Installing Wallplate

⚠ CAUTION

Electrical Hazard.
Can cause electrical shock or equipment damage.
Disconnect power before wiring.

The thermostat can be mounted horizontally on the wall or on a 4 in. x 2 in. (101.6 mm x 50.8 mm) wiring box.

1. Position and level the wallplate (for appearance only).
2. Use a pencil to mark the mounting holes.
3. Remove the wallplate from the wall and, if drywall, drill two 3/16-in. holes in the wall, as marked. For firmer material such as plaster, drill two 7/32-in. holes. Gently tap anchors (provided) into the drilled holes until flush with the wall.