Honeywell Home

VisionPRO® 8000 with RedLINK™

FOR RESIDENTIAL OR LIGHT COMMERCIAL APPLICATIONS

SUBMITTAL SHEET

Job Name	
Engineer	
Mechanical Contractor	
Contractor's P.O. No.	
Representative	
Notes	

Model(s)				
TH8321R1001	Qty.		Notes	
TH8320R1003	Qty.		Notes	
TH8110R1008	Qty.		Notes	
THM5421R1021	Qty.		Notes	
Approval				
Service				
Tag No.				

APPLICATION

RedLINK VisionPRO is a 7–Day programmable thermostat with auto changeover that is designed for single stage and multistage control of conventional and heat pump equipment such as rooftop units and split systems in residential and commercial applications. RedLINK VisionPRO can be used with or without an equipment interface module. The thermostat controls up to 3 heat / 4 cool conventional systems and up to 4 heat / 2 cool heat pump systems. The thermostat controls humidification, dehumidification, ventilation, an economizer and a lighting panel. Sensor inputs are used with remote indoor air temperature sensor(s), an outdoor air temperature sensor, a discharge air temperature sensor, a return air temperature sensor, an occupancy sensor for remote setback and dry contact devices for displaying alerts.

- The thermostat is equipped with a touchscreen display with a 2-line message center.
- Provides a microSD card port to upload Dealer Information, Custom Reminders, Custom Event Schedules, Holiday Schedule and Software Updates and to download Data Logs.
- Provides remote access to the thermostat when used with the RedLINK internet gateway.
- Provides control using optional remote temperature and humidity sensors.
- Thermostat integrates with the Niagara-AX framework.

SPECIFICATIONS

Terminal Designations:
Equipment Interface Module: R, RC, RH, C, W-O/B, W2-AUX 1, W3-AUX 2, Y, Y2, G, A-L/A, U1 U1, U2 U2, U3 U3, S1 S1, S2 S2, S3 S3, S4 S4, A, B, C, D
TH8321R Thermostat: R, RC, C, W-O/B, W2-AUX/E, Y, Y2, G, A-L/A, K, U1 U1, S1 S1
TH8320R Thermostat: R, RC, C, W-O/B, W2-AUX/E, Y, Y2, G, A-L/A, K, S1 S1
TH8110R Thermostat: R, RC, C, W-O/B, Y, G, K, S1 S1

Electrical Ratings (for VisionPRO and Equipment Interface Module):

Terminal	Voltage (50/60Hz)	Max. Current Rating
W - O/B	18 to 30 VAC and 750 mVDC	1.00A
Y (cooling)	18 to 30 VAC	1.00A
G (fan)	18 to 30 VAC	0.50A
W2 - Aux 1 (heating)	18 to 30 VAC	0.60A
W3 - Aux 2 (heating)	18 to 30 VAC	0.60A
Y2 (Cooling)	18 to 30 VAC	0.60A
A-LA (Output)	18 to 30 VAC	1.00A
(U1, U1), (U2, U2), (U3, U3)	30 VAC max.	0.50A

Power Consumption of TH8321R/TH8320R/TH8110R Thermostat:
Backlight on: 1.44 VA
Backlight off: 1.32 VA

Power Consumption of Equipment Interface Module: 2.0 VA

RedLINK Communication:
Frequency: 900 Mhz frequency range
Re-Sync Time: RedLINK devices re-establish communication within 6 minutes after AC power resumes.

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

Temperature Sensor Accuracy:
± 1.5 °F at 70 °F (0.75 °C at 21.0 °C)

Humidification Setting Range: 10% to 60% RH

Dehumidification Setting Range: 40% to 80% RH

Humidity Display Range: 0% to 99%

Humidity Sensor Accuracy:
± 5% RH from 30% to 50% RH at 75 °F (24 °C)

Cool Indication:
Displays "Cool On" when the thermostat turns the cooling on.

Heat Indication:
Displays "Heat On" when the thermostat turns the heating on.

Auxiliary Heat Indication:
Displays "Aux Heat On" when the thermostat turns the auxiliary heat on.

Interstage Differential:
Comfort: The thermostat keeps the indoor temperature within 1 degree of the setpoint (droop less control). The thermostat turns on stage 2 when the capacity on stage 1 reaches 90%.
When the interstage differential is set to 1.0 or higher, the thermostat stages the equipment based on how far the indoor temperature is from the setpoint.

Economizer:
Output on A during occupied (TH8110R, TH8320R, TH8321R) FDD economizer fault (TH8321R)

Clock Accuracy:
1 minute per month at 77 °F (25 °C). ± 2 minutes per month over the operating ambient temperature range.
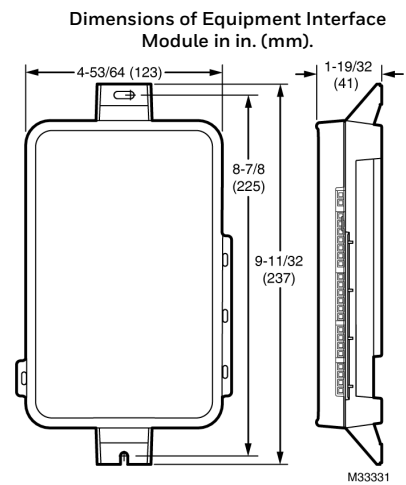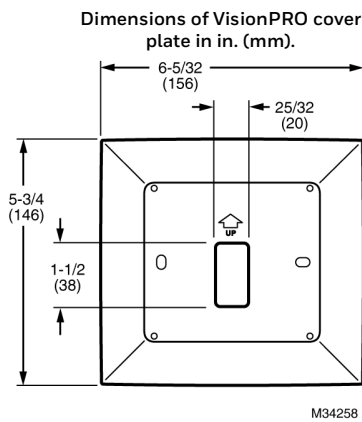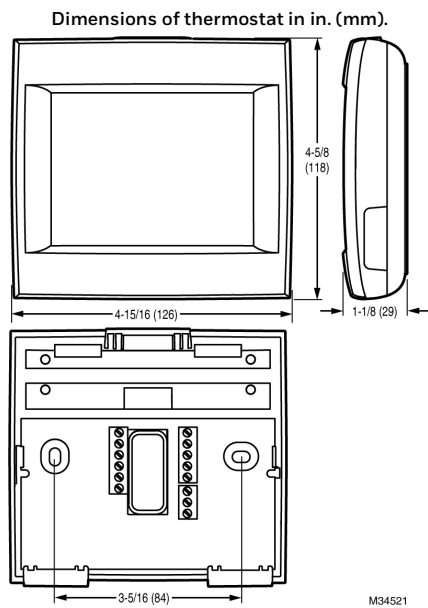
Mounting Means:
Thermostat mounts directly on the wall in the living space using mounting screws and anchors provided. Fits a horizontal 2 x 4 in. junction box. Use a cover plate and its mounting bracket to mount the thermostat onto a vertical 2 x 4 in. junction box.
Equipment Interface Module (EIM) mounts on HVAC equipment or on a wall in the equipment room.

33-00016-02

Product	Part Number	Operating Ambient Temperature	Operating Relative Humidity	Shipping Temperature	Physical Dimensions in Inches (mm)	Color(s)
Thermostat	TH8321R1001	32 to 120 °F (0 to 48.9 °C)	5% to 90% Non-Condensing	-20 to 120 °F (-28.9 to 48.9 °C)	4-15/16 x 4-5/8 x 1-1/8 (126 x 118 x 29)	Arctic White
	TH8320R1003	32 to 120 °F (0 to 48.9 °C)	5% to 90% Non-Condensing	-20 to 120 °F (-28.9 to 48.9 °C)	4-15/16 x 4-5/8 x 1-1/8 (126 x 118 x 29)	Arctic White
	TH8110R1008	32 to 120 °F (0 to 48.9 °C)	5% to 90% Non-Condensing	-20 to 120 °F (-28.9 to 48.9 °C)	4-15/16 x 4-5/8 x 1-1/8 (126 x 118 x 29)	Arctic White
Equipment Interface Module	YTHM5421R1010 THM5421R1021	-40 to 165 °F (-40 to 73.9 °C)	5% to 95% Non-Condensing	-20 to 165 °F (-28.9 to 73.9 °C)	9-11/32 x 4-53/64 x 1-19/32 (237 x 123 x 41)	Gray

Dimensions of thermostat in in. (mm).

4-5/8 (118)
4-15/16 (126)
1-1/8 (29)
3-5/16 (84)
M34521

Dimensions of VisionPRO cover plate in in. (mm).

6-5/32 (156)
25/32 (20)
5-3/4 (146)
1-1/2 (38)
UP
M34258

Dimensions of Equipment Interface Module in in. (mm).

4-53/64 (123)
1-19/32 (41)
8-7/8 (225)
9-11/32 (237)
M33331