



Wi-Fi BACnet Thermostats: eZNT-Wi-T331

Description

The eZNT-Wi-T331 Wi-Fi network thermostat combines built-in room sensors in a fully programmable controller with 3 universal inputs, 3 analog outputs and 1 binary output.

The intuitive LCD touch-interface is available with a variety of backlit colors that provide additional user feedback and esthetic appeal. Customizable button interfaces allow the thermostat on the wall to match customer decor and branding. Installers can use NFC-enabled mobile devices to configure the thermostat on the wall or in its shipped box.

The eZNT-Wi-T331 allows you to use advanced control strategies such as demand control ventilation to maximize energy savings based on occupancy without sacrificing user comfort.



Application

The eZNT-Wi-T331 integrated Wi-Fi technology is ideal for retrofitting non-communicating thermostats to improve overall building performance.

Use the eZNT-Wi-T331 for modulating valves and actuators and fan control in such applications as VAV/VVT, Fan Coils, Unit Ventilators, chilled beam and radiation. Custom sequences allow full use of all outputs for additional control of exhaust fans, lighting and blinds control or a supplementary heat stage.

Features

- ▶ BACnet®/IP over Wi-Fi, Delta LINKnet communication
- ▶ Standard RGB backlight allows choice of colors to indicate conditions, alarms and night mode
- ▶ Large easy-to-read LCD screen. Onscreen visual feedback on button selection
- ▶ Multiple button and slider layout options. Custom design available.
- ▶ Support for custom sequences through GCL+ programming
- ▶ Support for local scheduling, trending and alarming
- ▶ Binary outputs switch AC or DC, with internal or external power options
- ▶ Optional dual channel NDIR CO₂ sensor provides long term drift compensation and features automatic or manual single point calibration capability
- ▶ USB Service port, software enabled or disabled. Service tool not required.
- ▶ Fits most electrical boxes worldwide
- ▶ 2-piece design with tamper set screw lock
- ▶ Inputs and outputs can be expanded using Delta Controls DFM-4xx modules

Specifications

External Inputs

3 Universal Inputs (12-bit), software configurable for:
0-5 VDC
0-10 VDC
10 kΩ Thermistor
Dry Contact

External Outputs

3 Analog Outputs
0-10 VDC @ 20 mA max

1 SSR (FET) Output
24 VAC/DC @ 0.5 A max (internal or external powered)

LCD

2-line custom segmented display with icons

Buttons

2 rows of 4 capacitive touch zones, allowing up to 8 individual buttons or combined to form larger buttons

Backlight

RGB LED backlight for multicolor LCD and button illumination

Temperature

Digital Temperature Sensor
+/- 0.2°C (+/- 0.36°F)

Digital Humidity Sensor (Optional)

Accuracy +/- 3%

CO₂ Sensor (Optional)

Dual Channel NDIR Detection

Range: 0-2000 ppm

Accuracy @ 25°C (77°F):
± (30ppm + 3% of value)

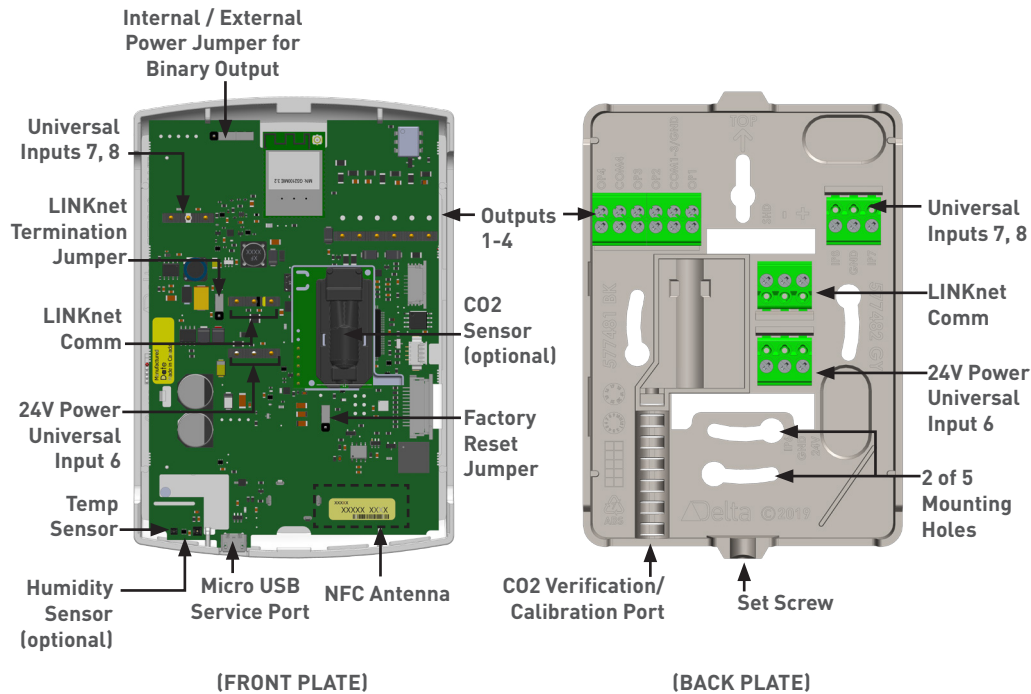
Occupancy Sensor (Optional)

Passive infrared motion (PIR) sensor

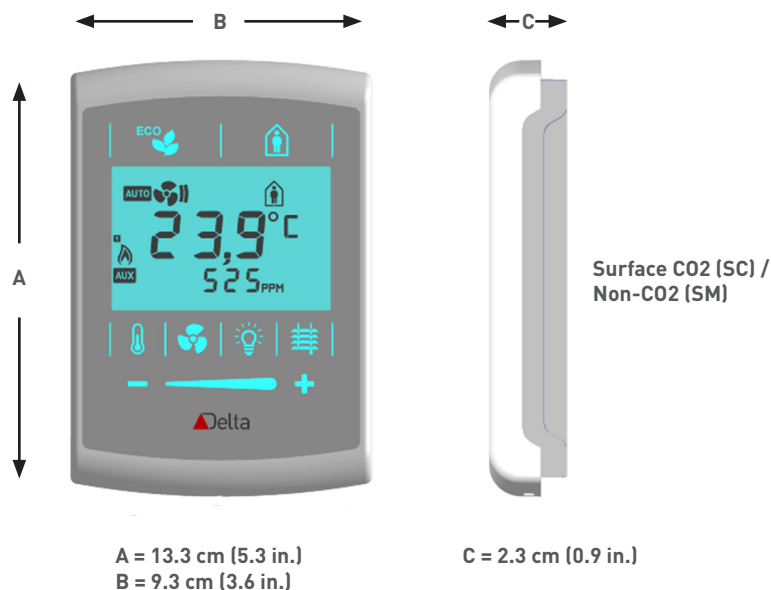
Range: 5m (16.4 ft.)

Coverage: 100° Horizontal

eZNT-Wi-T331: Board Layout Diagram



eZNT-Wi-T331: Dimensions and Backplate Options



Specifications (Continued)

Connectors

Screw-type terminal connectors

Wiring Class

Class 2 / SELV

Power

24V AC/DC

Typ. 5.3 VA / 1.4 W

Max. 17 VA / 15 W

Communications

BACnet/IP over Wi-Fi (802.11b, g, n @ 2.4 GHz)

RS-485 port

Delta LINKnet (up to 76800 bps), supports up to 4 LINKnet devices, max 2 DFM-4xx devices

USB Service Port

Near Field Communication (NFC)

Passive 2-way short range

Ambient

0° to 55°C (32° to 131°F)

10 - 90% RH (non-condensing)

Dimensions

With SM or SC backplate:

13.3 x 9.3 x 2.3 cm (5.3 x 3.6 x 0.9 in.)

Weight

172 g (0.38 lbs)

IP Rating

IP20

Compliance

CE

FCC Class B

EAC

Listings

UL 916 Listed



Subject to change without notice.

Ordering

The product number of the eZNT-Wi-T331 is eZNT-Wi-T331aaa-B-cc-ddd-eee where the letters correspond to the different options listed below:

Sensor Options (aaa-) (Temperature standard)

C	CO ₂
HM	Humidity and Motion
CHM	CO ₂ , Humidity and Motion

Backlit Display (-B-)

B	RGB Backlit Display / Buttons is a standard feature
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Backplate Options (-cc-)

SC	Backplate for CO ₂ models ¹
SM	Backplate for non-CO ₂ models

¹eZNT-Wi CO₂ models uses a CO₂ sensor that allows for flush wall mounting, however requires a SC backplate not compatible with the non-CO₂ SM backplate.

Button Overlay Options (-ddd-)

###	Standard Button Overlay Number
###	Library Button Overlay Number ²
999	Custom Button Overlay ³

²See eZNS Button Overlay Design Guide. Expect up to 8 weeks for delivery. Additional charges apply.

Button Overlay and Plastic Color Options (-eee-)

WWG	White Button Overlay, White Front with Grey Backplate (default)
GWG	Grey Button Overlay, White Front with Grey Backplate
BBB	Black Button Overlay, Black Front with Black Backplate
Custom	Custom Color Options ³

³Contact inside sales for pricing and more information.
Custom button design available through Partner Applications Services (PAS).

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Updated April 2020_r

eZNT-Wi-T331: Standard Button Overlay Options



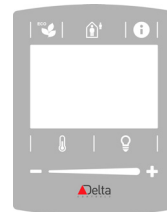
Overlay 003



Overlay 005



Overlay 009



Overlay 015



Overlay 027



Overlay 045



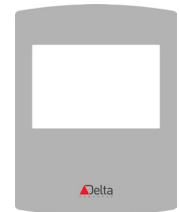
Overlay 046



Overlay 047



Overlay 053



Overlay 100

eZNT-Wi-T331: Color Options



WWG: White Button Overlay, White Front, Grey Back



GWG: Grey Button Overlay, White Front, Grey Back



BBB: Black Button Overlay, Black Front, Black Back