



## Network Thermostats: eZNT-T304

### Description

The eZNT-T304 network thermostat combines local room sensors with a fully programmable controller with 3 universal inputs and 4 binary outputs. The eZNT-T304 also offers a choice of backlit colors that provide additional user feedback and esthetic appeal. The eZNT NFC technology enables installers to use NFC-enabled mobile devices to configure the thermostat on the wall or in its shipped box.

The eZNT-T304 delivers custom solutions specific to the needs of each market, and provides building occupants with an intuitive touch-interface to adjust their individual comfort levels. The eZNT-T304 customizable button overlays also allow the thermostat on the wall to match customer decor and branding.



### Application

The eZNT-T304 is suitable for controlling a wide variety of basic unitary equipment. The eZNT-T304 is ideal for tri-state or time proportional valves and electric heat control, or packaged unit integration in applications like heat pumps, simple RTUs, 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.

The optional humidity, motion and CO<sub>2</sub> sensors allow advanced control strategies, such as demand control ventilation, energy savings based on occupancy and optimal user comfort.

### Features

- ▶ Native BACnet firmware
- ▶ Standard RGB backlight allows choice of colors to indicate conditions, alarms and night mode
- ▶ Large easy-to-read LCD screen. On-screen visual feedback on button selection.
- ▶ Multiple button and slider layout options. Custom button design available through Professional Development Services (PDS).
- ▶ 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
- ▶ USB service port, software enabled or disabled. Service tool not required.
- ▶ Smartphone and tablet integration and setup using NFC technology
- ▶ Fits most electrical boxes worldwide
- ▶ 2-piece design with tamper set screw lock

### Specifications

#### External Inputs

3 universal inputs (12-bit), software configurable for:  
0-5 VDC  
0-10 VDC  
10 kΩ thermistor  
Dry contact

#### External Outputs

4 SSR (FET) outputs  
24 V AC/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%

#### CO<sub>2</sub> Sensor (Optional)

Dual-channel NDIR detection

Range: 0-2000 ppm

Accuracy @ 25°C (77°F):

± (30 ppm + 3% of value)

#### Occupancy Sensor (Optional)

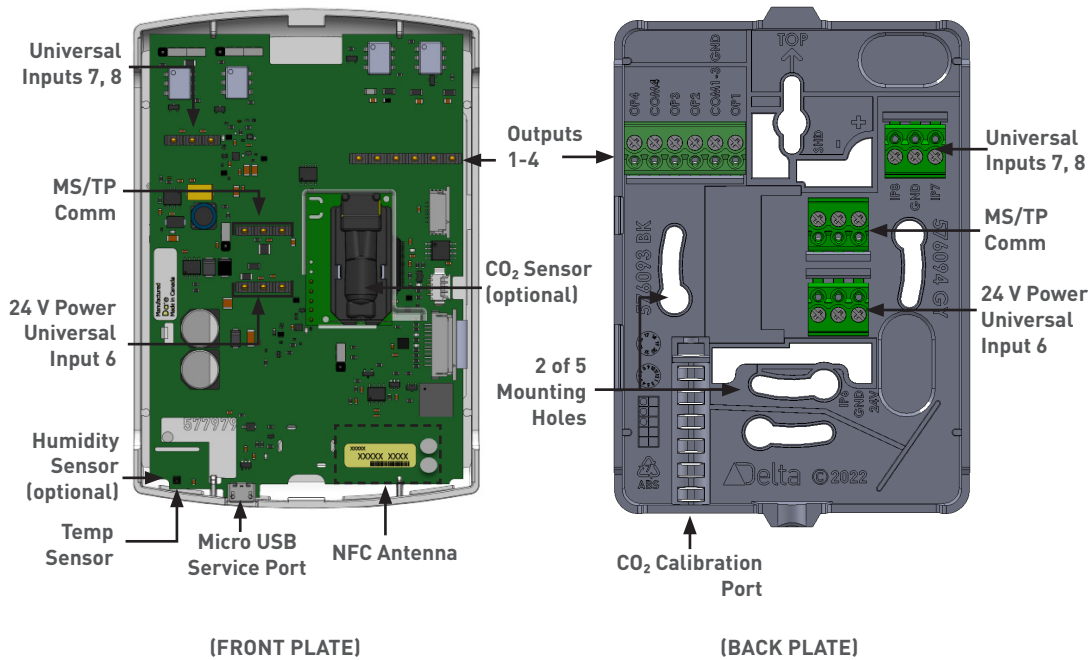
Passive infrared motion (PIR) sensor

Range: 5 m (16.4 ft.)

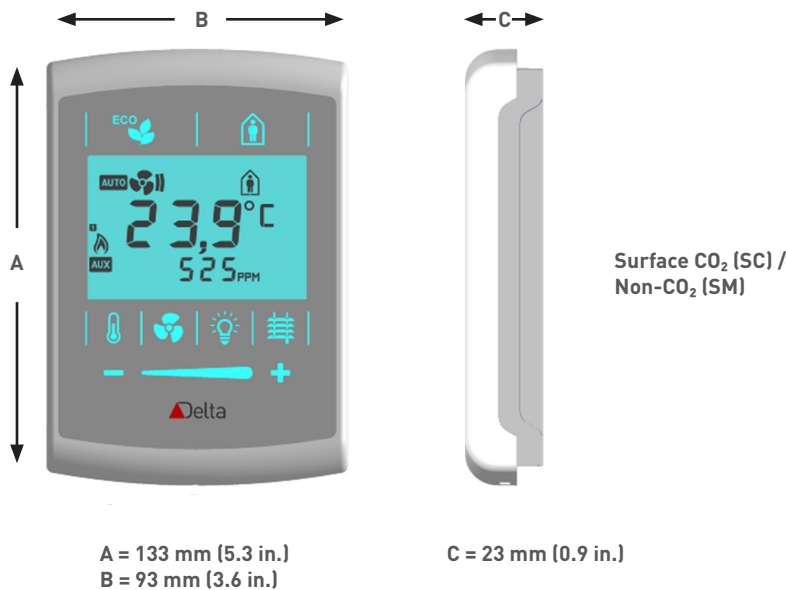
Coverage: 100° horizontal

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## eZNT-T304: Board Layout Diagram



## eZNT-T304: Dimensions and Backplate Options



### Specifications (Continued)

#### Connectors

Screw-type terminal connectors

#### Wiring Class

Class 2 / SELV

#### Power

24 V AC/DC  
 Typ. 6.3 VA / 2.2 W  
 Max. 52 VA / 72 W

#### Technology

Arm® Cortex® M4 CPU  
 1 MB flash  
 256 KB RAM

16 Mbit external data flash

#### Communications

RS-485 port  
 BACnet MS/TP (up to 76800 bps)

USB service port

Near Field Communication (NFC)  
 Passive 2-way short range

#### Ambient

0°C to 55°C (32°F to 131°F)  
 10% to 90% RH (non-condensing)

#### Dimensions

With SM or SC backplate:  
 133 × 93 × 23 mm (5.3 × 3.6 × 0.9 in.)

#### Weight

175 g (0.39 lb)

#### IP Rating

IP20

#### Compliance

CE  
 FCC Class B  
 EAC

#### Listings

UL 916 Listed



Subject to change without notice.

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## Ordering

The product number of the eZNT-T304 is eZNT-T304aaa-B-cc-ddd-eee where the letters correspond to the different options listed below:

### Sensor Options (aaa-)

<b>C</b>	CO <sub>2</sub> Only
<b>HM</b>	Humidity and Motion
<b>CHM</b>	CO <sub>2</sub> , Humidity and Motion

### Backlit Display (-B-)

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

<b>SC</b>	Backplate for CO <sub>2</sub> models <sup>1</sup>
<b>SM</b>	Backplate for non-CO <sub>2</sub> models <sup>1</sup>

<sup>1</sup>eZNT CO<sub>2</sub> models uses a CO<sub>2</sub> sensor that allows for flush wall mounting. However, this requires an SC backplate that is not compatible with the non-CO<sub>2</sub> SM backplate.

### Button Overlay Options (-ddd-)

<b>###</b>	Standard Button Overlay Number
<b>###</b>	Library Button Overlay Number <sup>2</sup>
<b>999</b>	Custom Button Overlay <sup>3</sup>

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

### Button Overlay and Plastic Color Options (-eee-)

<b>WWG</b>	White Button Overlay, White Front with Gray Backplate (default)
<b>GWG</b>	Gray Button Overlay, White Front with Gray Backplate
<b>BBB</b>	Black Button Overlay, Black Front with Black Backplate
<b>Custom</b>	Custom Color Options <sup>3</sup>

<sup>3</sup>Contact inside sales for pricing and more information.

### Accessories

<b>400662</b>	eZNX Foam Back Insulator (For SM and SC Backplates)
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## eZNT-T304: Standard Button Overlay Options



Overlay 003



Overlay 005



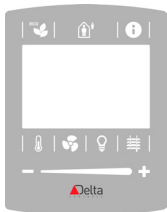
Overlay 009



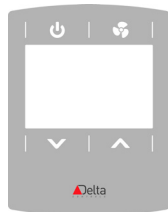
Overlay 015



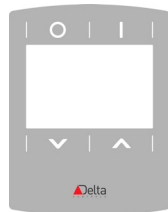
Overlay 027



Overlay 045



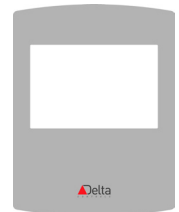
Overlay 046



Overlay 047



Overlay 053



Overlay 100

## eZNT-T304: Color Options



WWG: White Button Overlay, White Front, Gray Back



GWG: Gray Button Overlay, White Front, Gray Back



BBB: Black Button Overlay, Black Front, Black Back