



Network Sensors: eZNS-T100

Description

The eZNS-T100 network sensor offers building occupants an intuitive touch-interface to adjust individual comfort levels while tailoring to the needs of their specific market. Featuring a standard temperature sensor with humidity, CO₂ and motion options, the eZNS also offers a choice of backlit colors to provide additional user feedback and esthetic appeal.

The eZNS sensor's NFC technology allows installers to use NFC-enabled mobile devices to configure the eZNS and enable enteliWEB integration.



Application

The eZNS is suitable for a wide range of sensing applications, from basic temperature monitoring, to indoor air quality and occupancy sensing. A customizable interface allows for intuitive user interaction.

An available external input allows for additional zone monitoring such as window or door contact, temperature averaging or other dry contact sensor information.

When paired with an application controller, the eZNS supports advanced control strategies such as demand control ventilation, energy savings based on occupancy and optimal user comfort.

Features

- ▶ 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.
- ▶ Capacitive touch zones allow custom button sizes
- ▶ Multiple button layout options. Simple one-touch buttons, or two-touch buttons for added functionality
- ▶ Slider to quickly adjust setpoint or tap for precise changes
- ▶ Fully programmable in GCL+
- ▶ USB Service port, software enabled or disabled. Service tool not required.
- ▶ Smartphone and tablet integration and setup using NFC technology
- ▶ Recessed mount for minimal profile or surface mount backplate options
- ▶ Fits most electrical boxes worldwide
- ▶ 2-piece design with tamper set screw lock

Specifications

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 (Optional)

Optional RGB LED backlight for multicolor LCD and button illumination

Temperature

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

Humidity Sensor (Optional)

Accuracy +/- 3%

CO₂ Sensor (Optional)

Dual Beam, Self Calibrating NDIR Detection

Range: 0-2000 ppm

Accuracy @ 77°F (25°C):
± (50ppm + 2% of value)

Temperature Dependence: 2ppm/°C
(1 ppm/ °F) typical

Pressure Dependence: 0.13% of reading
per mm Hg

Stability: 20 ppm/year (typical)

Occupancy Sensor (Optional)

Passive infrared motion (PIR) sensor

Range: 5m (16.4 ft.)

Coverage: 100° Horizontal

Inputs

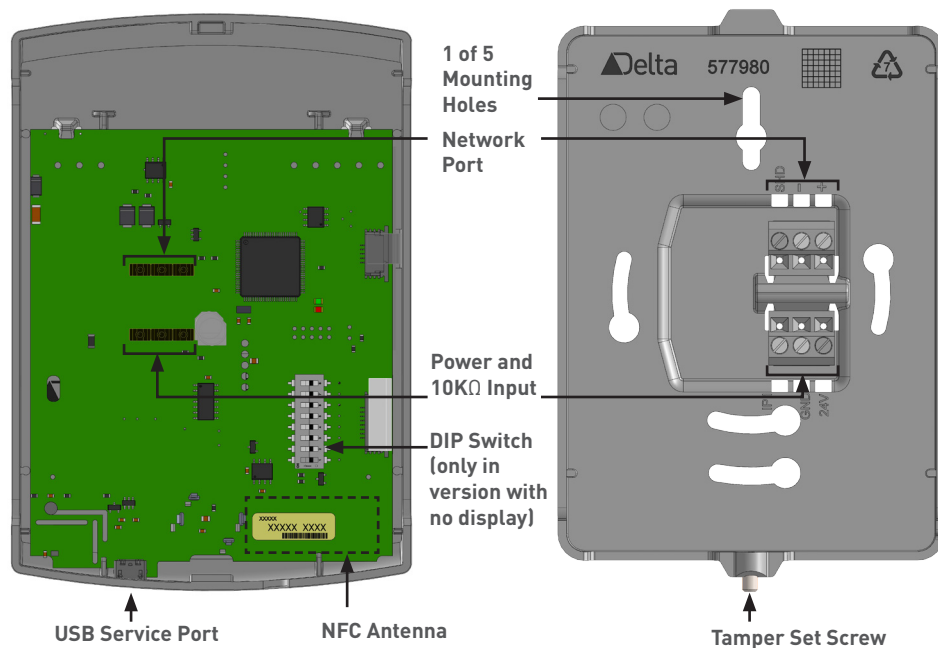
1 10kΩ input (16 bit A/D)

enteliZONE is a registered trademark of Delta Controls Inc.

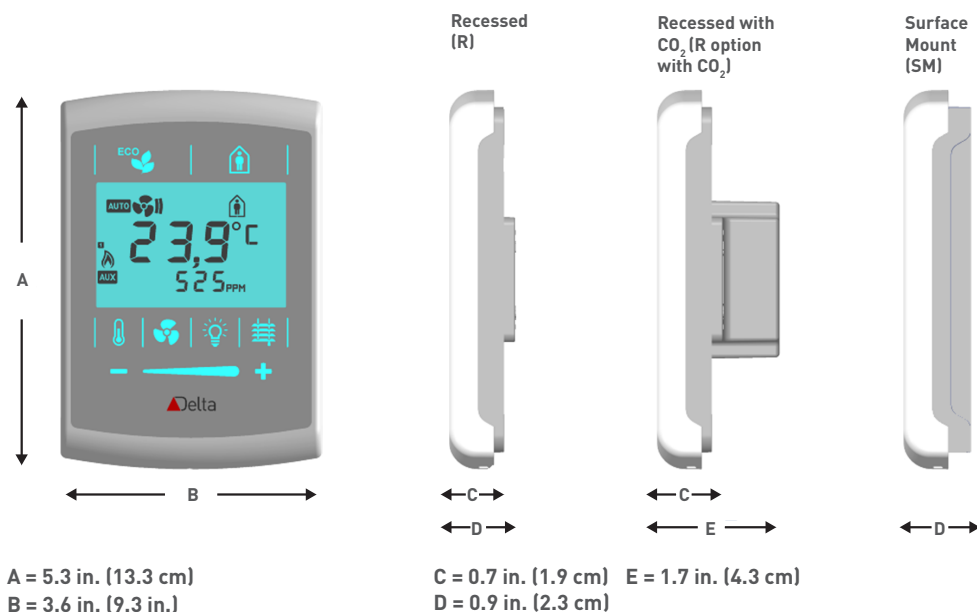
BACnet is a registered trademark of the American Society of Heating, Refrigerating and Air Conditioning Engineers Inc.

Published in April 2014

eZNS-T100: Board Layout Diagram



eZNS-T100: Dimensions and Backplate Options



Specifications (Continued)

Technology

32-bit processor
Internal A/D, Flash and RAM

Communications

RS-485 port
Delta LINKnet (up to 76800 bps)

USB Service Port

Used as virtual Com port to connect the BACnet® network to a workstation

Near Field Communication (NFC)

Passive 2-way short range

Connectors

Screw-type terminal connectors

Wiring Class

Class 2 / SELV

Power

24 V AC/DC
2 VA no backlight
4 VA with backlight
6 VA with backlight and CO₂ sensor

Ambient

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

Dimensions

With R (non-CO₂) and SM backplate:
5.3 x 3.6 x 0.9 in. (13.3 x 9.3 x 2.3 cm)

With R (CO₂) backplate:
5.3 x 3.6 x 1.7 in. (13.3 x 9.3 x 4.3 cm)

Mounted Surface Profile

Recessed (both R backplates):
0.75 in. (1.9 cm)

Surface Mount (SM backplate):
0.9 in. (2.3 cm)

Compliance

CE
FCC Class B

Listings

UL 916

Subject to change without notice.

enteliZONE™

eZNS-T100: Standard Button Overlay Options



Overlay 03



Overlay 05



Overlay 09



Overlay 45



Overlay 46



Overlay 47



Overlay 53

eZNS-T100: 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



Ordering

The product number of the eZNS-T100 is eZNS-T100aaa-bb-cc-ddd-eee where the letters correspond to the different options listed below:

Sensor Options (-aaa-)

| | |
|------------|---------------------------------------|
| C | CO ₂ |
| H | Humidity |
| M | Motion |
| HM | Humidity and Motion |
| CH | CO ₂ and Humidity |
| CM | CO ₂ and Motion |
| CHM | CO ₂ , Humidity and Motion |

Display Options (-bb-)

| | |
|-----------|-------------------------------|
| B | RGB Backlit Display / Buttons |
| NB | No Backlighting |
| ND | No Display |

Backplate Options (-cc-)

| | |
|-----------|--------------------------------------------------|
| R | Recessed / Recessed CO ₂ ¹ |
| SM | Surface Mount |

¹CO₂ sensor options require recessed CO₂ 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.