



Wireless BACnet Thermostat: eZNTW

Description

The eZNTW is a fully programmable thermostat equipped with EnOcean® wireless connectivity and onboard Wi-Fi option. Featuring a standard temperature sensor with humidity, CO₂ and motion options, the eZNTW also offers a choice of backlit colors that provide additional user feedback and esthetic appeal. The eZNTW NFC technology enables installers to use NFC-enabled mobile devices to configure the thermostat.

The eZNTW 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.



Application

The eZNTW is designed for a wide range of sensing applications, from basic temperature monitoring, to indoor air quality and occupancy sensing.

eZNTW is ideal for new or retrofit projects where wiring is difficult or costly. Wire-free connectivity increases flexibility of installation, and allows motion and temperature sensors to be installed at optimal locations for best energy management results.

eZNTW is well-suited for multiple market applications like hotels, dormitories, schools and hospitals. eZNTW maximizes operational efficiency in the hospitality market by integrating with hotel management systems and room locks.

Features

- ▶ BACnet/IP over Wi-Fi, BACnet MS/TP, Delta LINKnet communication
- ▶ EnOcean wireless for zone-level control, including sensors and outputs
- ▶ GCL+ programmable: Button layout, display, backlit colors, EnOcean wireless control for HVAC and room peripherals like door contact, motion sensor, lighting and blinds control
- ▶ RGB backlight with large LCD screen allows choice of colors to indicate conditions, alarms and night mode
- ▶ Capacitive touch zones allow custom button sizes
- ▶ Slider to quickly adjust setpoint or tap for precise changes
- ▶ USB Service port, software enabled or disabled. Service tool not required.
- ▶ Easy network set up using NFC with smartphone, or configuration page in web browser

Specifications

Inputs

1 10kΩ input (12 bit A/D)

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 Beam, Self Calibrating NDIR Detection

Range: 0-2000 ppm

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

Temperature Dependence: 2 ppm/°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: 5 m (16.4 ft.)

Coverage: 100° Horizontal

Connectors

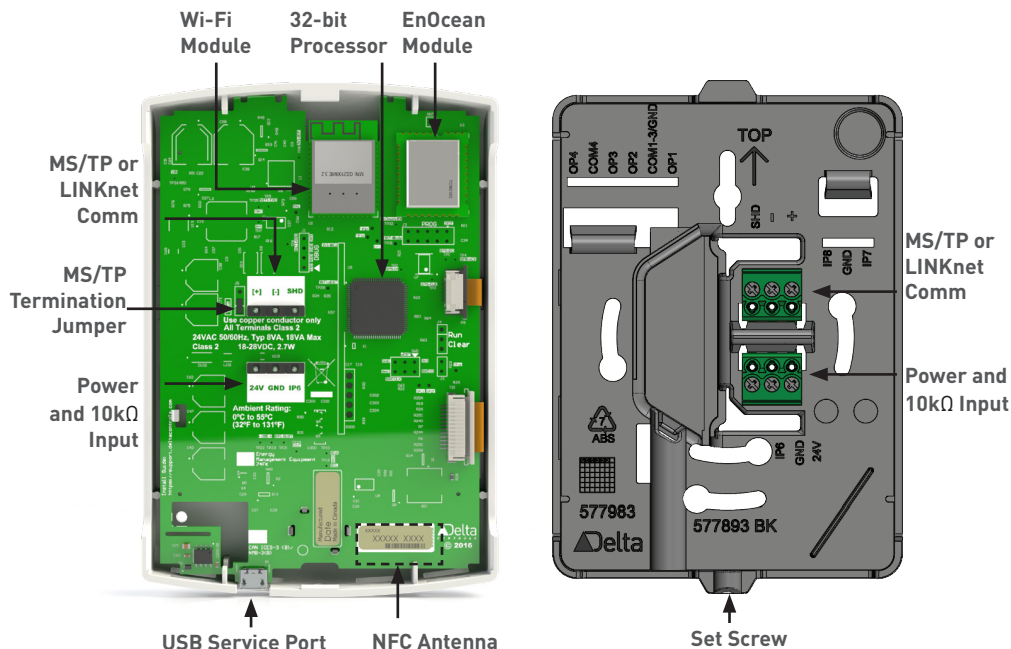
Screw-type terminal connectors

Wiring Class

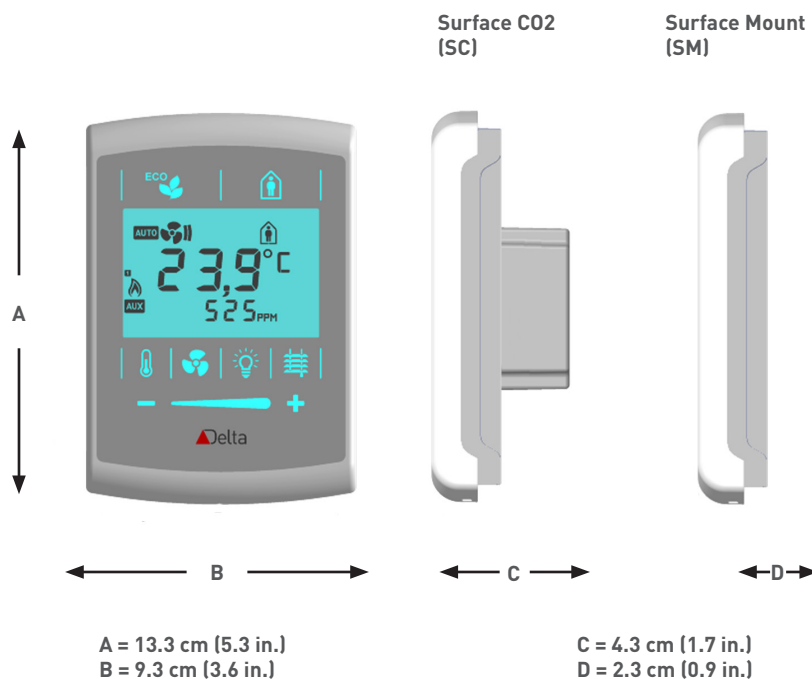
Class 2 / SELV

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eZNTW: Board Layout Diagram



eZNTW: Dimensions and Backplates



Specifications (Continued)

Power (Wi-Fi option)

24 V AC/DC, 10 VA / 3 W max

Power (without Wi-Fi option)

24 V AC/DC, 8 VA / 2 W max

Technology

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

Communications

BACnet/IP over Wi-Fi
(802.11b/g/n @ 2.4 GHz)
Typical Output Power 802.11b/g/n
+17 dBm/ +15 dBm/ +14 dBm

EnOcean (902 MHz or 868 MHz)

Max power at antenna

902 MHz: +3.0 dBm

868 MHz: +7.0 dBm

RS-485 port (Wi-Fi option)

Delta LINKnet (up to 76800 bps)
Supports up to 4 LINKnet devices,
max 2 DFM devices

RS-485 port (without Wi-Fi option)

BACnet MS/TP (up to 76800 bps)

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 backplate:

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

With SC (CO₂) backplate:

13.3 x 9.3 x 4.3 cm (5.3 x 3.6 x 1.7 in.)

Mounted Surface Profile

Surface Mount (SM, SC backplates):

2.3 cm (0.9 in.)

Weight

168 g (0.37 lb)

IP Rating

IP20

Compliance

CE

FCC Class B

Listings

UL 916 Listed

Subject to change without notice.

Ordering

The product number of the eZNTW is eZNTW-ww-xxx-aaa-B-cc-ddd-eee where the letters correspond to the different options listed below:

Wi-Fi Option (-ww-)

Wi¹	Wi-Fi Connectivity 802.11b, 802.11g and 802.11n (2.4 GHz) , Delta LINKnet and EnOcean
(No Wi-Fi)	BACnet MS/TP and EnOcean

¹If no Wi-Fi option is selected, it is assumed that you are ordering the MSTP version.

EnOcean Frequency Options (-xxx-)

En902	EnOcean 902 MHz for North America
En868	EnOcean 868 MHz for Europe

Sensor Options (-aaa-)²

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

²Temperature sensor included in all models.

Backlit Display (-B-)

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

SC	Surface CO ₂ ³ Backplate
SM	Surface Mount Backplate

³CO₂ sensor options require Surface CO₂ backplate.

Button Overlay Options (-ddd-)

###	Standard Button Overlay Number
###	Library Button Overlay Number ⁴
999	Custom Button Overlay ³

⁴See eZNS Button Overlay Design Guide. Expect up to 8 weeks for delivery. Additional charges apply.

Button Overlay and Front 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 ⁵










⁵Contact inside sales for pricing and more information.

Complementary System Components Ordering



Expand the eZNTW functionality with other Delta Controls LINKnet and wireless EnOcean system components. Ideal for retrofits, energy-efficient green buildings, schools and hospitality applications.

These options and more are available on the Delta Controls Online Ordering web site.

EnOcean Wireless Devices Product Numbers

	902 MHz	868 MHz	EnOcean Devices
	PTM265UW	PTM265YW	Single decorator style switch, white
	PTM265DUW	PTM265DYW	Dual decorator style switch, white
	PTM265KCAU	PTM265KCAY	Key card activated switch, white
	MC-21U	MC-21Y	Window or door magnet contact switch
	ERCOI-AU	--	4 channel contact interface, 4 outputs, independent dry contact relays (type-c), additional functionality as a radio repeater; power supply 8-30 VDC or 24 VAC
	ERNR-AIU	--	Split duplex relay, provides top half as a non-switched receptacle and bottom half as switched receptacle
	ER1C-FLU-120 / 277 / 347	--	Power load controller, N.O. relay rating 20 A @ 120 or 277 VAC, 15 A @ 347 VAC
	ERM-FLU-277	ERM-FLY-277	Electrical loads control module, power supply 120-277 VAC, N.O. relay rating 15 A @ 120-277 VAC
	ERM-FSU-24	ERM-FSY-24	Signal dry contact relay 3 A @ 30 VDC, power supply 24 VAC/DC; additional functionality as radio repeater

LINKnet Expansion Field Modules Product Numbers

	DFM-404	LINKnet expansion field module, 4 universal inputs, 4 TRIAC outputs, 24 VAC
	DFM-440	LINKnet expansion field module, 4 universal inputs, 4 analog outputs, 24 VAC

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Updated Aug 8 2018_r

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eZNTW: Standard Button Overlay Options



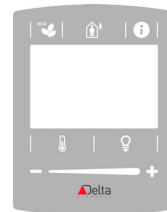
Overlay 003



Overlay 005



Overlay 009



Overlay 015



Overlay 027



Overlay 045



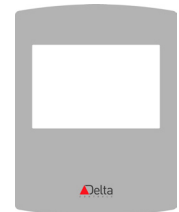
Overlay 046



Overlay 047



Overlay 053



Overlay 100

eZNTW: Button Overlay and Front 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