

Network Sensors

BACstat II: DNS-24/H24

Description

The DNS-24/H24 is an intelligent room sensor with a custom 3-line, 96 segment, LCD display that is used with Delta's BACnet Controllers. The DNS-24 can communicate on Delta's LINKnet network or directly on a BACnet MS/TP network.

The DNS-24 displays a wide-range of digital or analog values, including setpoints, temperature, air flow, heating and cooling status, fan speed, valve, and damper position. When connected to a Delta Controller on a LINKnet network, the DNS-24 provides programmable remote sensor capabilities to the controller. When connected on a BACnet MS/TP network, the DNS-24 functions as an independent BACnet sensor device.



Application

The DNS-24 is used for applications that require one or more low cost, programmable sensors with informative LCD and buttons.

Features

- Native BACnet™ firmware
- BACnet MS/TP or LINKnet communications
- Built-in 10kΩ thermistor
- Optional built-in humidity sensor
- Programmable (via GCL+ over network), 3-value, 96 segment, LCD display with optional backlighting
- 4 Programmable buttons (via GCL+ over network)
- Derived Network Addressing (DNA) for simple integration into a standard network architecture
- Optional terminal block for wiring a remote thermistor to the temperature input
- Service port

Specifications

BACnet Device Profile

BACnet Application Specific Controller (B-ASC)

LCD

3-value and various icons (96 total segments) with optional backlighting

Push Buttons

4 stylized momentary push buttons

Temperature Sensor

Thermistor input - 10kΩ at 77°F (25°C)

Accuracy +/-0.36°F from 32-158°F (+/- 0.2°C from 0-70°C)

Display resolution of 0.1°

Stability 0.24°F over 5 years (0.13°C)

Humidity Sensor

Accuracy of +/-2% RH from 0-100% RH (25°C, Vsupply = 5Vdc)

Display resolution of 0.1%

Stability of +/- 1% RH (typical at 50% RH over 5 years)

Note: Extended exposure to >90% RH causes a reversible shift of 3% RH

Technology

8-bit processor with internal A/D, Flash and RAM

Device Type

Configured as a LINKnet or Subnet device

Device Addressing

Set via keypad

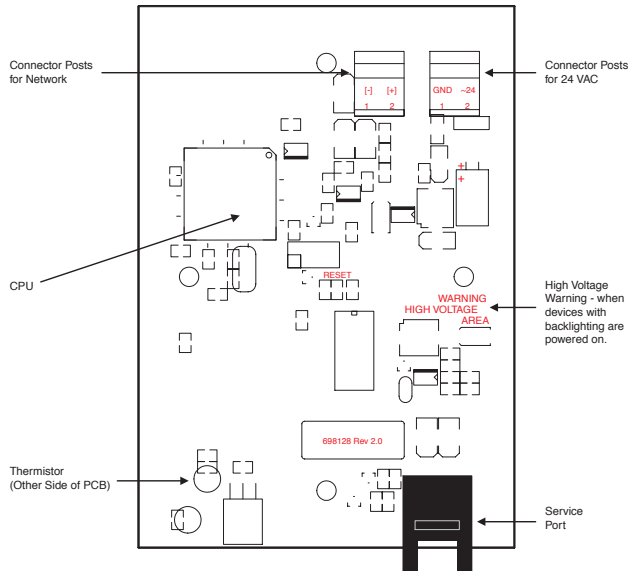
Communications Ports

BACnet MS/TP @ 9600, 19200, 38400, 76800 bps (maximum 99 devices per BACnet MS/TP segment)

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DNS-24/H24: Board Layout Diagram



Specifications (Continued)

Delta LINKnet @ 76800 bps (maximum 12 devices, depending on the controller with no more than 2 DFM/DNT devices per LINKnet segment)

Connectors

Screw-type terminal connectors

Wiring Class

Class 2

Power

24V AC

5 VA

Ambient

32° to 131°F (0° to 55°C)

10 - 90% RH (non-condensing)

Dimensions

5 x 3.25 x 1 in. (12.7 x 8.3 x 2.5 cm)

0.3 lb. (120 g)

Approvals/Standards

UL 916 Listed

CE

FCC

BTL Listed

Accessories

RPT-768—Delta Network Repeater for BACnet MS/TP

TRM-768—Delta Network Terminator for BACnet MS/TP

CON-768—Delta Network Converter

Ordering

Order the DNS-24 with the desired options according to the following product numbers:

DNS-24—Internal Thermistor

DNS-24B—Internal Thermistor, Backlighting

DNS-24X—Internal Thermistor, External Thermistor Terminator

DNS-24BX—Internal Thermistor, External Thermistor Terminator, Backlighting

DNS-24H—Internal Thermistor, Internal Humidity Input, Backlighting, External Thermistor Terminator

An appended button icon code must be included to specify the desired icons embossed on the buttons. If a button icon code is not specified, the product is shipped with the default button icons.

Default—Bottom 2 buttons are ▼ & ▲ (Setpoint Adjust), top 2 buttons are OFF and ON

INT—Bottom 2 buttons are ▼ & ▲ (Setpoint Adjust), top 2 buttons are 0 and 1 (International)

FAN—Bottom 2 buttons are ▼ & ▲ (Setpoint Adjust), top 2 buttons are INCREASE and DECREASE Fan Speed