

TruBlu™ NLC Smart Ethernet Thermostat with CO₂ Sensor

Overview

- Commercial Grade Bluetooth® NLC Certified Thermostat
- Built-in Ethernet Connectivity
- Gas/Electric to 2H/2C, Heat Pump to 3H/2C
- Humidity Sensing and Control
- CO₂ Sensing and Control
- Advanced Remote Sensor Bus
- Two Configurable Relays
- Full Color Touchscreen
- Weekly & Calendar Scheduling
- BACnet/IP and Modbus TCP/IP Included
- 16 Remote Sensors: up to six indoor, one humidity, one outdoor, six water leak sensor, and up to three auxiliary sensors for monitoring items (i.e., supply air, return air, walk-in refrigerators and freezers)
- Two Digital Inputs for Fault Conditions, including Condensate and Equipment Faults
- Occupancy Input from Bluetooth NLC sensor
- On-board Data Logging with Sub-Metering Support



Applications

The X7C-IP-SR-W/B is an Ethernet color touchscreen thermostat with Bluetooth Network Lighting Control (NLC), an advanced remote sensor bus, CO₂ sensor, and more.

The Bluetooth NLC occupancy sensor data allows NetX soft setback and soft recovery algorithms to optimize HVAC usage without sacrificing comfort. The scheduling includes daily schedules (4 events per day) and up to 80 Additional Events. The X7C-IP-SR-W/B also includes full Modbus TCP/IP and BACnet/IP support over Wi-Fi, directly on the thermostat. The CO₂ sensor requires no field calibration for five years.

The X7C-IP-SR-W/B is designed to operate with mwConnect's TruBlu NLC system and the Network Thermostat CloudConnect™ Online Management software.

Manufactured in the USA

The X7C-IP-SR-W/B device is Manufactured in the USA, using both imported and US-made components.

Operation

TruBlu™ Mesh Controls: The X7C-IP-SR-W/B thermostat with Bluetooth NLC certification by the Bluetooth SIG offers true multi-vendor interoperability. Configuration of the device and mesh network is accomplished via the TruBlu web portal or iOS mobile app. The app is used for initial setup and subsequent parameter adjustment.

Advanced functionality such as energy monitoring, and demand response is available with the optional TruBlu Gateway (sold separately).

Energy Savings: Efficient Equipment Restart™ randomizes equipment starts to minimize multiple units turning on simultaneously when there are multiple NetX thermostats at the location. Random Restart on power up staggers restart of HVAC system after a power outage to minimize peak inrush current. Adaptive Recovery for Schedules allows system to achieve desired setpoint at the beginning of the schedule. NLC Soft Setback and Soft Recovery algorithms optimize energy savings

See the TruBlu™ Commissioning User Manual for more information.

Note:

1. Bluetooth Range is highly dependent on the integration of fixtures, surrounding environment and conditions. It is recommended to conduct testing for Bluetooth range accuracy.

Summary

Product Type:
Commercial Grade Ethernet Thermostat

Rated Voltage:
20V to 30VAC, 24VAC nominal

Rated A.C. / D.C. Current:
0.05 to 0.75 AC / 0.0 to 0.75 DC Amp continuous, per output, surges to 3 Amps maximum

Temperature Control Range:
Heating: 38 to 88°F (6 to 30°C) in 1° steps
Cooling: 60 to 108°F (16 to 40°C) in 1° steps

Humidity Control Range:
Humidify: 10% to 60%RH in 5%RH steps
Dehumidify: 35% to 75%RH in 5%RH steps

CO₂ Sensing:
Range: 400-2,000 ppm
Accuracy: 40 ppm
Adjustable High CO₂ Indication: 500-2,000 ppm

Ethernet: 10/100Mbps, 802.3, Auto Negotiation, Auto-MDIX

Expansion Port: Integrated Bluetooth NLC Module

Max Bluetooth Range¹: 100ft (30.4m)

Dimensions: 5.1"H x 4.7"W x 1.15"D (128mm x 119mm x 29mm)

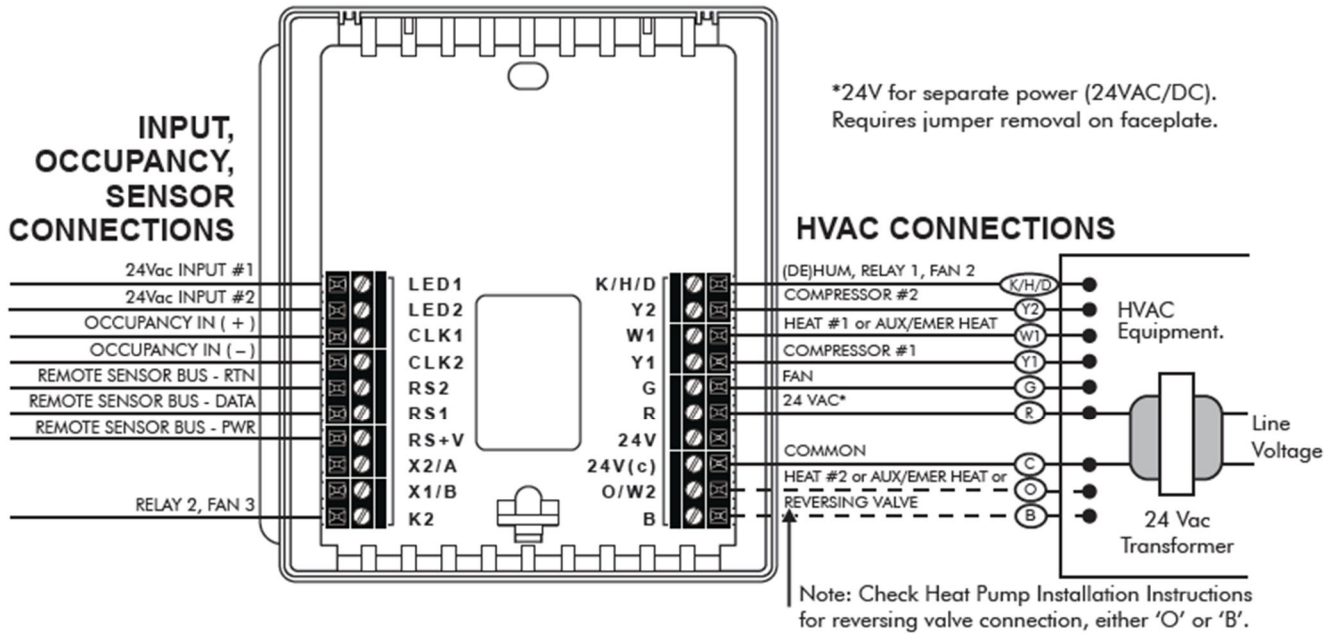
Color: White or Black

Warranty: 5 years

Project

Location/Type

Wiring Diagram



How To Order

Model No.	Description	Rated Voltage	Color
X7C-IP-SR-W	TruBlu Bluetooth NLC Commercial Grade Thermostat with built-in Ethernet and CO ₂ sensor	20V to 30VAC, 24VAC nominal	White
X7C-IP-SR-B	TruBlu Bluetooth NLC Commercial Grade Thermostat with built-in Ethernet and CO ₂ sensor	20V to 30VAC, 24VAC nominal	Black