TOUCHSCREEN CONTROLLER
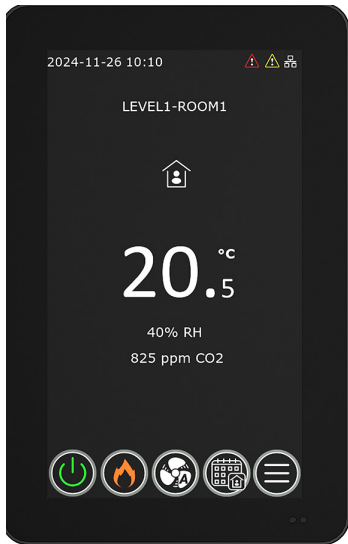## Advanced. Intuitive. Versatile.

The Neptronic Touchscreen Controller is a sleek, wall-mounted 5" touchscreen thermostat that merges advanced controller-grade logic with an intuitive user interface. Engineered for versatility, it delivers native BACnet and Modbus communication, onboard sensors, and customizable control sequences, without the need for additional gateways or licenses. Designed to simplify installation and accelerate commissioning, this all-in-one controller is ideal for energy-efficient HVAC control and seamless integration into Building Automation Systems (BAS).

KEY FEATURES

- **17 onboard I/Os** for zone control, actuators, valves, sensors, and custom logic
- **Native BACnet and Modbus (RS485)** for easy BAS integration
- **Multi-sensor Intelligence Hub** : On-board temperature, humidity, CO_2, VOC, occupancy
- **Guided setup wizards** and on-screen diagnostics for fast commissioning
- **Custom splash screens** for hospitality and facility messaging
- **Built-in interlocks**: Logic for window contacts, flow switches, override, etc.
- **Energy-optimized scheduling** for better energy savings
- **Compliance-ready**: UL, CE, FCC, BTL, ASHRAE 55, ASHRAE G-36, Title 24
- **OpenPLC support** – no license required to build custom sequences (select variants only)
- **Future ready**: Incorporates requirements for RESET and WELL standard. Planned support of BACnet and Modbus on TCP/IP over Wi-Fi

neptronic®

DETAILED VIEW

2024-11-26 10:10

LEVEL1-ROOM1

20.₅ **°C**

40% RH
825 ppm CO2

- Full-color display with smart idle messaging/ads
- Custom splash screens for hospitality/facility branding
- Access all sensor readings & I/Os
- Built-in commissioning tools
- Test outputs, control sequences
- Pre-loaded templates: FCU, AHU, RTU, Heat Pump
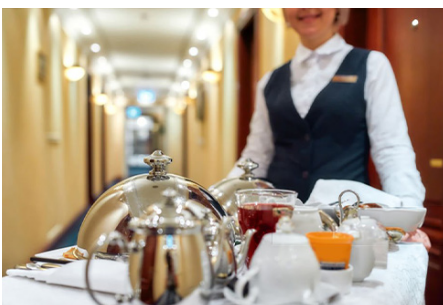
APPLICATIONS

Commercial spaces

High-end residential complexes
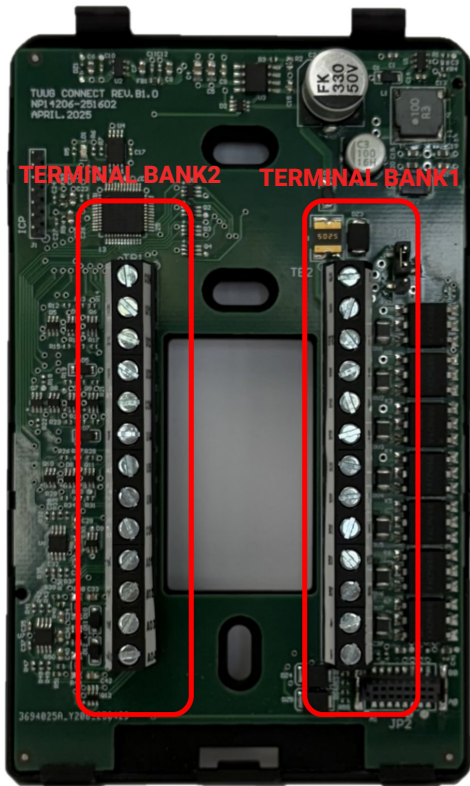
Educational facilities

Hospitality

Retail

Manufacturing

I/O SUMMARY

Terminal Bank 2 (13 Pins)

- 6 Universal Inputs
- 4 Analog Outputs

AO Signal Support

- 0-10VDC
- 0-20mA (OEM Applications)

UI Signal Support

- Dry Contacts
- 0-10VDC
- Thermistor (Type 3)
- 0-20mA* (AHU, RTU and OEM Applications)
- Pulse up to 100 Hz* (OEM Applications)

* Select inputs only

Terminal Bank 1 (13 Pins)

- 24VAC/VDC Power (±15%)
- 7 Binary Outputs
- RS485 Communication A+ and B-

BO Support (0.5A per BO)

- On/Off
- Pulse (1Hz in TPM mode)

Communication (2 wire Half Duplex)

- BACnet MSTP (Rev 23) and Modbus RTU
- Baud rates up to 115kbps on BACnet
- Structured View on BACnet

CATEGORIES

Fan Coil Controller

Rooftop unit or Air Handling unit Controller

VAV Controller

Energy Recovery Units

Remote Display

MODELS

Models	Temp.	RH	CO$_2$	VOC	OCC
TFCU011B	•	•			
TFCU021B	•	•			•
TFCU051B	•	•	•		
TFCU061B	•	•	•		•
TFCU071B	•	•	•	•	
TFCU081B	•	•	•	•	•