



Hardware



Software



Services



Thermostat

TS-200

Control Beyond HVAC

The TS-200 is a full-featured, standalone or networked thermostat that provides control beyond just the HVAC system. Using its customizable touchscreen, you can perform system-level monitoring and control, override lighting group schedules or change setpoints on other thermostats within the network.

Powerful Capabilities

The TS-200's powerful capabilities include: controlling an HVAC system with up to two stages of cooling and three stages of heating; measuring temperature and humidity; and controlling either gas or electric, standard or heat pump HVAC systems.

Easy Installation

For easy installation, the TS-200 has a wireless feature and inputs for both a remote control temperature sensor and supply duct temperature probe. During or after installation, you can enable or disable features of the TS-200. To brand the installation, the TS-200 can display a company logo.

Flexible Connectivity

The TS-200 supports half-duplex RS485 or wireless connectivity. It uses the Modbus RTU protocol for efficient data transmission.

Feature Highlights

- Communicates bi-directionally with GridPoint EMS controllers
- 2-stage cooling and 3-stage heating control
- Gas, electric, or heat pump HVAC system control
- Graphical, customizable touchscreen display allows you to:
 - Perform system-level monitoring and control
 - Override lighting group schedules
 - Change setpoints on other thermostats within the network
- Temperature and humidity monitoring
- Two general purpose analog inputs
- Isolated auxiliary relay
- Real-time clock (battery backed)
- System-level remote terminal
- Wireless connectivity (optional)

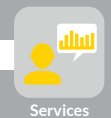




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TS-200 Thermostat - Features and Specifications

General	<ul style="list-style-type: none"> • Microcontroller-controlled • Serial flash RAM for data logging • Real-time clock (battery backed)
Local interface	<ul style="list-style-type: none"> • HVAC equipment type selection switches • Touchscreen <ul style="list-style-type: none"> - 2.0" L x 2.0" W LCD - Monochrome - Customizable graphics - Resistive touchscreen • 2 LEDs (inside housing): <ul style="list-style-type: none"> - Power - Heartbeat
Environmental measurements	<ul style="list-style-type: none"> • 1 Onboard temperature ($\pm 1^\circ\text{F}$) • 1 Onboard relative humidity ($\pm 3\%$) • 2 Analog inputs used as: <ul style="list-style-type: none"> - Remote temperature (thermistor) - Digital status - 0-5 VDC - 0-10 VDC (1 input capable) - 4-20 mA (1 input capable)
Communications	<ul style="list-style-type: none"> • 1 Wireless interface (optional) • 1 RS485 Port <ul style="list-style-type: none"> - Modbus RTU protocol - 19.2 Kbps baud rate - Half-duplex - Current limited - Transient protection for asymmetrical data lines to: <ul style="list-style-type: none"> - IEC 61000-4-2 (ESD) - IEC 61000-4-4 (EFT) - IEC 61000-4-5 (lightning)
Wiring connections	<ul style="list-style-type: none"> • Power <ul style="list-style-type: none"> - R - Thermostat power (24 VAC) - C - Thermostat power (common) - RH - RTU transformer (24 VAC) - RC - RTU transformer (24 VAC) • Communications <ul style="list-style-type: none"> - 1A - RS485 + - 1B - RS485 - - REF - Signal reference • Relay Control <ul style="list-style-type: none"> - Y1 - Compressor 1 - Y2 - Compressor 2 - W1 - Heat stage 1 / Auxiliary heat - W2/O - Heat stage 2 / Changeover valve - G - Fan - D - Damper / Occupied signal
Power supply and protection	<ul style="list-style-type: none"> • Voltage: 24 VAC, 50-60 Hz • Power: 5 VA max • Over-voltage protection • Over-current protection (resettable fuse)
Mechanical	ABS plastic housing
Environmental	<ul style="list-style-type: none"> • Operating temperature range: 0°C to 50°C • Storage temperature range: -20°C to 70°C • Relative humidity range (non-condensing): 5 to 95%
Certifications and compliance	<ul style="list-style-type: none"> • FCC part 15 Class A • CE • RoHS
Dimensions	4.8" H x 4.4" W x 2.0" D