PT ELECTRONICS, INC.
Exceeding Expectations.

Steam Remote Access Boiler Controls

Illustration Purposes Only
Not Actual Product

PT-1200SX
Steam Temperature Averaging Ethernet Control Building Overview

The PT-1200SX Steam Wireless Temperature Averaging Ethernet Control offers a simple yet cost effective method of controlling a Steam single or two pipe system used in Multi-Family properties.

The PT-1200SX works by gathering temperature data from the Wireless Temperature Transmitters and performing an averaging calculation. The averaging result becomes the Building Average Temperature. The user configures a Day & Night temperature setpoint. When the Building Average Temperature drops below the setpoint. The system sends a "Call for Heat" to the Steam Boiler.

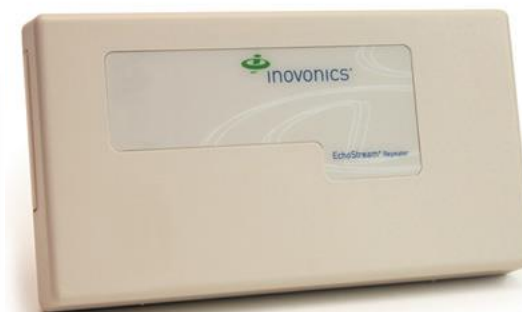Once the Building Average Temperature reaches setpoint the Boiler is turned off.
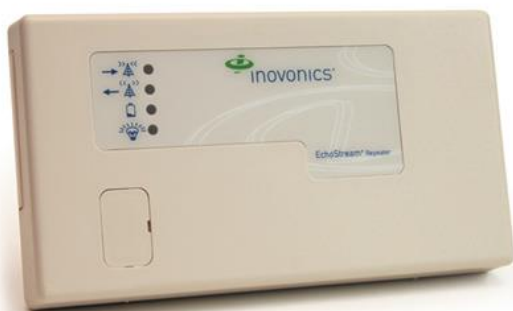
Wireless System Equipment Overview

Wireless Temperature Transmitters

Wireless Receiver

Wireless Signal Hi-Power Repeater

PT Electronics, Inc. utilizes Wireless 900Mhz Spread Spectrum Mesh Network technology to provide reliable data communications to the PT-1200SX System.
In cases where Temperature Transmitter signal is weak we offer Wireless Signal Hi-Power Repeaters. The repeater Picks up incoming nearby Temperature Transmitter data and re-transmits the signal at a stronger level.
This eliminates weak signal spots due to;
Reinforced Concrete Construction
Fire Proof Construction
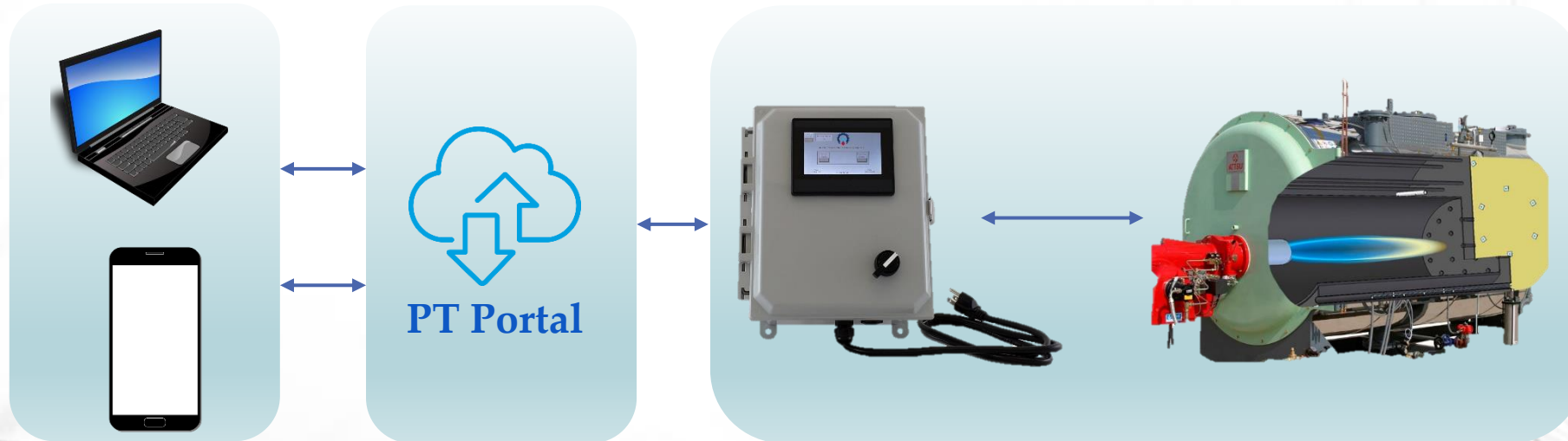Long Distances

Boiler No-Start Alert Feature

- The PT-1200SX Ethernet Control has a built in feature which monitors the present equipment status. Upon a "Heat Call" from the PT-1200SX the Boilers provide a Feedback Signal to the PT-1200SX. If the signal is not received within a User Configurable Time Setting the PT-1200SX will display an On-Screen graphic thus visually notifying personnel of a "Boiler No Start" condition meaning that the boiler did not light off. If the remote access feature is enabled the PT-1200SX will send out E-Mail & SMS (Text Message) notifications up to 5 Contacts designated by the User.

- This Feature eliminates equipment downtime traditionally found in properties. Property managers/Owners would find out from tenant complaints hours to days later after property has decreased in temperature putting building at freeze risk and causing damage.

Remote Internet
Control / Monitor Capable

PT Portal

- The PT-1200SX Ethernet Control is capable of being Accessed Remotely via a secure Encrypted Portal Login. This gives the user the ability to view & modify settings via a Smart Phone (iOS & Android supported) and or PC without having the need to be physically present at the installation site.

- Additional features are accessible upon enabling the Remote Internet/Monitor function on the PT-1200SX.

PT Portal

E-Mail Alerts & SMS (Text Message) Capable

- With the Remote Internet Access Enabled the PT-1200SX Ethernet Control will INSTANTLY send E-Mail Alerts to up to 5 User Configurable contacts with a follow up E-Mail reminder determined by the User Time Configuration. This effectively eliminates equipment down-time often found with traditional stand-alone controls, enabling the user to take immediate action.

- Alerts such as:

    - Boiler No Start

    - On Demand Faults

    - Sensor Failures

DHW Saver Capable
(Select Models)

The PT-1200S Ethernet Control has the capability of controlling a buildings Domestic Hot Water System. We have developed a proprietary method of controlling the DHW system which involves Day/Night Scheduling.
The user can cut down on the Temperature of the Water being stored at NIGHT, when tenants are technically sleeping.
Right before High Demand period the PT-1200S automatically ramps the Temperature to normal DAY Operating Set Point.

On Demand Recirculating Pump Control Capable (Select Models)

Ability to have On Demand Recirculating Pump control enables the user the added Savings that comes with On Demand. Adding value and providing Gas Usage saving to the end user. On Demand Recirculating control operates the Domestic Hot Water Recirculating Pump on a "Demand Basis".

The PT1200SX can detect when someone asks for Domestic Hot Water on any given fixture. In a case of No Demand the Recirculating pump is shut off. This reduces the Heat Loss that is accompanied with 24HR Recirculating Pump control. Providing up to 30% Gas Usage savings.

Report Generating Feature

The PT-1200SX has an integrated report generating feature and when enabled can provide the user valuable data such as:

- Individual Wireless Temperature Transmitter Data; Temperature Reading, Active Sensor Status & Sensor Building Location
- Building Temperature Average Reading
- Building DAY/NIGHT Set Points
- On Demand Control Data

STAND-ALONE MODELS
When enabled the report is generated daily automatically at 2:00PM as an Excel CSV File and stored on a MicroSD Card

REMOTE ACCESS MODELS
When enabled the report is generated daily automatically at 2:00PM as an Excel CSV File and sent via E-Mail to the User Configurable Contact List

Ease of Operation

The PT-1200SX Ethernet Control offers a powerful, cost effective method of controlling Building Steam Heating Equipment as well as Domestic Hot Water Systems without the need of complicated Menus, Parameters and confusing functions.

The PT-1200SX was designed for ease of operation and simple intuitive graphical based user interaction.

Equipment Hardware & System Features

Hardware Description

- **USER FRIENDLY TOUCHSCREEN**
  - Menu Navigation

- **MAJOR COMPONENTS FIELD REPLACEABLE**
  - No Need for Rewiring – Plug & Play Design

- **ALL COMPONENTS USED ARE UL APPROVED**
- **ENCLOSURE IS NEMA 4X RATED – DUST & WATERPROOF**
- **HARDWIRED OUTDOOR SENSOR NEMA 4X RATED – DUST AND WATERPROOF**
- **ALL RUGGED INDUSTRIAL GRADE COMPONENTS**
- **RELIABLE WIRELESS 900Mhz MESH NETWORK SYSTEM**

System Features

- **STAND – ALONE OPERATION**
  - The PT-1200SX will work as a stand-alone control or can be Accessed Remotely via Internet PT PORTAL

- **AUTOMATIC SENSOR REMOVAL FROM CALCULATED BUILDING AVERAGE TEMPERATURE**
  - Eliminating potential false temperature readings due to tenant interaction (Stove, Window Opening, Space Heaters, etc.)

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- **BOILER NO-START CONDITION ALERT**
- **DOMESTIC HOT WATER SAVER CAPABLE**
- **ON DEMAND RECIRCULATING PUMP CONTROL CAPABLE**
- **INSTANT E-MAIL ALERT WITH REMINDER FUNCTION**
- **SCREEN-LOCK FUNCTION – PASSWORD PROTECTION**
- **GRAPHIC USER INTERACTION FOR EASE OF OPERATION**
- **AUTOMATIC REPORT GENERATING FEATURE**
- **BACKUP SYSTEM ACCESS VIA REMOTE INTERNET AND ON FRONT PANEL**