

## Wireless TEC Room Temperature Sensor System

### Description

The Wireless TEC Room Temperature Sensor System allows the wiring between the Room Temperature Sensor (RTS) and Terminal Equipment Controller (TEC) to be replaced with a Radio Frequency (RF) link while maintaining the same functionality as our standard TEC Room Temperature Sensors.

By eliminating the wiring, labor costs can be significantly reduced and sensor relocation accomplished easily. Because the RF link utilizes frequency hopping spread spectrum technology, it is virtually immune to interference and unlikely to interfere with other devices. Though maximum transmission distances depend on building characteristics, the RF link should obtain a minimum transmission distance of 100 feet in most buildings. The system allows signal strength to be monitored to determine system performance in a specific building and to optimize performance during installation.



Two devices - A wireless RTS and a TEC Transceiver (TTX) are required to replace the wiring. The wireless RTS is powered off of a standard lithium battery that can be easily replaced and will operate a minimum of five years, in most applications, before requiring replacement.

The TTX is mounted near the TEC and is line powered. The TTX has an antenna that can be brought to a knockout in the event the TEC is mounted inside an enclosure. Both the RTS and TTX are given unique addresses that permanently bind them to each other and allowing them to be installed within close proximity of other wireless systems.

## Specifications – Room Temperature Sensor (RTS)

Monitoring Range	55 to 95°F (13 to 35°C)
Sensing Element	100K Negative Temperature Coefficient (NTC) Thermistor
Calibration Requirements	None Required
Battery Type	3.0 Volts 2/3A size LiMnO <sub>2</sub> (for example Duracell DL2/3A or Varta CR13A)
Battery Life	Expected life span of 5 years with normal usage. The point is failed when battery is depleted.
Transmission Frequency	Normal Mode – Temperature signal once per minute Tool Mode – Continuous Demo Mode – Temperature signal once every 4 seconds by inserting Passkey (544-643) into MMI port
Cover Dimensions	3-11/32" H x 2-1/2"W x 1-1/2" D (85 mm x 63 mm x 38 mm)

## Specifications – TEC Transceiver (TTX)

Power	
Voltage Requirement	24 Volts AC
Consumption	2.2 VA
Dimensions	4-1/8" H x 2-7/16"W x 1-1/16" D (105 mm x 62 mm x 27 mm)
Installation	Duct mounted using TTX Mounting Bracket

## General Specifications

Radio	
Frequency Range	902-928 MHz (License free ISM band)
Channels	16
Communication Protocol	Multi Frequency Spread Spectrum with Acknowledgements and Retries (MFSS/AR)
Agency Approvals	Complies with FCC Part 15 Regulations (Low Power Unlicensed Transmitters)
Operating Temperature	32° to 122°F (0° to 50°C)
Operating Relative Humidity	20 to 90% Relative Humidity



**Wireless Room Temperature Sensor (Rear View)**

## Ordering Information

Description	Product Part Number
Room Temperature Sensor (RTS) (includes battery and wireless back plate mounting kit)	550-660*
Room Temperature Sensor (RTS) with occupancy override, temperature setpoint functionality (includes battery and wireless back plate mounting kit)	550-670*
TEC Transceiver (TTX) (includes power and communication cables and mounting bracket)	550-205
TEC Transceiver (TTX) (includes setpoint/override support and RJ11 to RJ11 communication cable)	550-208

## Accessories Ordering Information

Description	Product Part Number
Laptop Cable (RJ11-DB9)	540-143
Battery (10 Pack)	550-204
Occupancy Override Button, 25-pack (Beige)	544-480A
Occupancy Override Button, 25-pack (White)	544-480B
Setpoint Door, 25-pack (Beige)	544-481A
Setpoint Door, 25-pack (White)	544-481B
Blank Bezel, 25-pack (Beige)	544-482A
Blank Bezel, 25-pack (White)	544-482B
Blanking Override Button, 25-pack (Beige)	544-484A
Blanking Override Button, 25-pack (White)	544-484B
Passkey (for demo mode)	544-643A
Wireless Backplate Mounting Kit	544-781*
TTX Communication Cable (RJ11-RJ11)	550-200
TTX Fitting for Antennae Installation thru a Knockout - HEYCO Connector (5 Pack)	550-074
TTX Transformer	550-710

\*Add letter suffix to indicate desired color: A = Desert Beige; B = White (for example, 550-660A for Desert Beige).

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