

Wireless TEC Room Temperature Sensor (Mesh)

Description

The APOGEE® Wireless TEC Room Temperature Sensor (WRTS) eliminates the need to run wire between the Terminal Equipment Controller (TEC) and its room temperature sensor. The WRTS communicates with the Field Level Network Transceivers (FLNXs), mounted at the TECs, that also support the Wireless Field Level Network (WFLN).

Since the WFLN is a mesh network, a WRTS can use any nearby FLNX to communicate with its TEC.



Figure 1. WRTS (Full-Featured Model).

Features

- Battery powered.
- Field selectable frequency/channel for one of 16 channels of operation in the 2.4 GHz frequency band.
- Liquid Crystal Display (optional) – displays room temperature value, setpoint value (momentarily), override condition, and diagnostic information.
- Digital Setpoint Adjustment (optional) – the sensor's keypad provides error-free digital setpoint adjustments in one-degree increments. Setpoint values are momentarily displayed as changes are made.
- Occupancy Override button (optional) – enables an occupant to revert to an occupied control schedule during the unoccupied cycle for a period of time determined by the system operator.

Benefits

- Simpler, faster, and easier installation.
- Eliminates need to run any wire to the sensors.
- Sensors can be easily moved.
- Highly reliable—able to adjust if RF obstructions occur between the sensor and its associated TEC.

Specifications

Monitoring range	55° to 95°F (13° to 35°C)
Sensing element	10K Negative Temperature Coefficient (NTC) Thermistor
Sensor Accuracy	0.5°F (0.3°C)
Compatibility	APOGEE® Terminal Equipment Controllers (using P1 protocol) APOGEE® Modular Building Controller (MBC) that uses a PowerPC Series 1000 Modular Equipment Controller (MEC) with FLNs and 32 MB or greater RAM Requires Firmware Revision 2.8 or later
Frequency Range	16 channels of operation in the 2.4 GHz international license free ISM band (IEEE 802.15.4 radio channels 11 through 26) 2405 to 2480 MHz – 5 MHz channel spacing
Modulation	O-QPSK Direct Sequence Spread Spectrum radio in accordance with IEEE 802.15.4 specification
Agency Listings	UL 916 CSA (267AS-5630002) CE Australian C-Tick Complies with FCC Part 15.247 (Regulations for Low Power Unlicensed Transmitters) FCC ID: TKD-5630002
Certification	Designed for ZigBee®
Environmental Compliance	RoHS and WEEE Compliant
Range	Typical indoor range of 25 to 100 ft (8 to 30 m) (Actual range varies based on environmental conditions)
Operating Temperature	32° to 122°F (0° to 50°C)
Operating Relative Humidity	20% to 90% relative humidity (non-condensing)
Dimensions	L 4.50" x W 2.75" x D 1.21" (114 mm x 70 mm x 31 mm)
Power:	
Battery	3.6 Volts Lithium AA (Tadiran part number TL-4903/S [standard] or SAFT part number LS14500BA)
Battery Life	Typical 5 year life (actual time varies based on operating environment, WRTS model, and settings)

Ordering Information

Description (White Housing, Battery Included)	Part Number
WRTS Sensing Only	QAA2290.EWSC
WRTS Sensing with Display*	QAA2290.DWSC
WRTS Sensing with Display*, Override, and Setpoint	QAA2290.FWSC
10-pack WRTS Replacement Battery	PXA-LITH.P10

* Field selectable to display either Fahrenheit or Celsius units.

Regions where this Product is Sold

Australia, Brazil, Canada, China, Europe, Hong Kong, Korea, Mexico, New Zealand, Singapore, Taiwan, US.

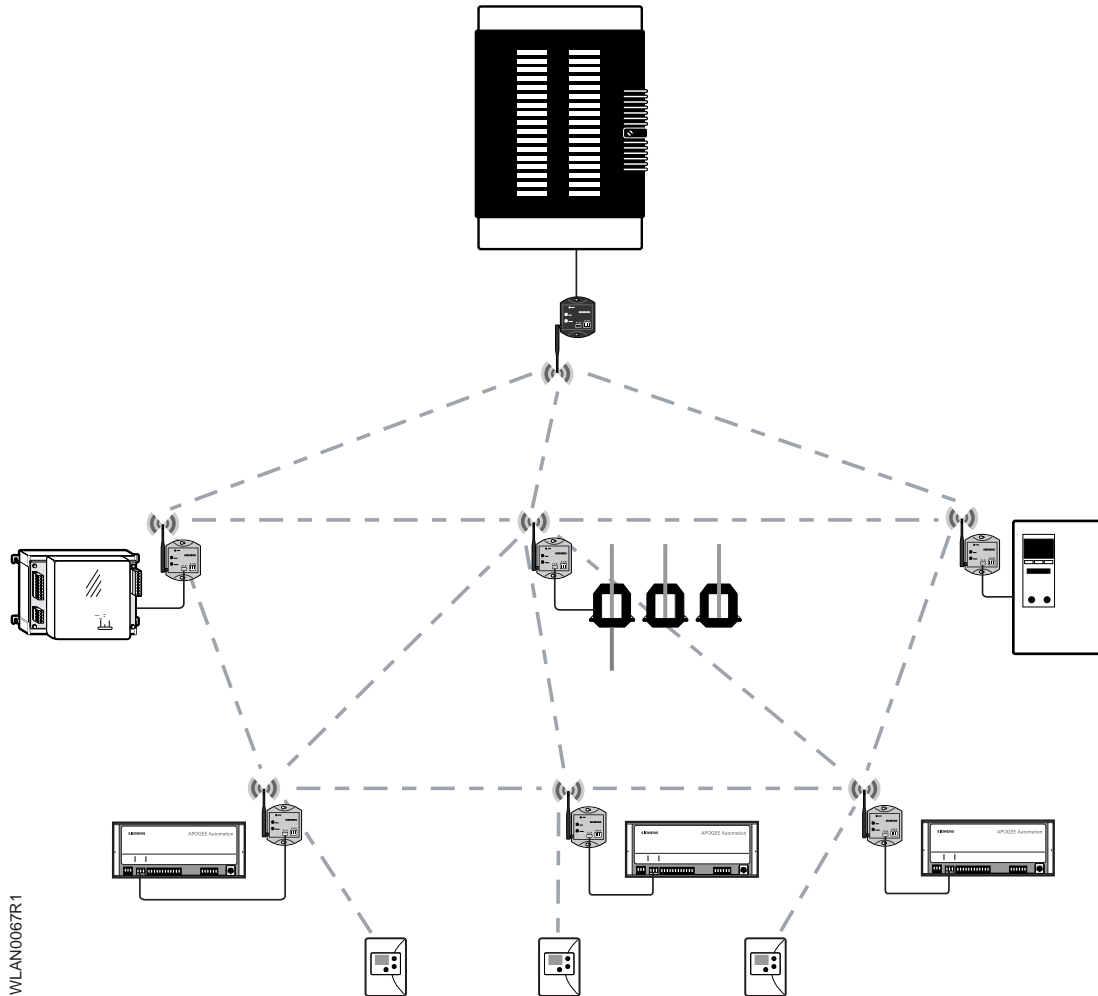


Figure 2. WFLN with WRTS.

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