Wireless Room Sensor (WRS)

Description

The Wireless Room Sensor (WRS) eliminates the need to run wire between the Terminal Equipment Controller (TEC) and its associated room temperature sensor. The WRS communicates directly with the Room Sensor Transceiver (RSX) mounted at the TEC.

Field binding can be done either by connecting the WRS and RSX with a binding cable or using the HMI on the RSX.

Figure 1. WRS (Full-Featured Model).

Features

- Five years of battery life with most applications.
- Frequency channel automatically changes as required to avoid interference from other RF devices.
- (*Optional*) Liquid Crystal Display – Displays room temperature value, setpoint value (momentarily), override condition, and diagnostic information.
- (*Optional*) Digital Setpoint Adjustment – The sensor's keypad provides error-free digital setpoint adjustments in one-degree increments. Setpoint values are momentarily displayed as changes are made.
- (*Optional*) Occupancy Override button – 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.

Specifications

Wireless Room Sensor (WRS)	
Monitoring range	55°F to 95°F (13°C to 35°C)
Sensing element	10K Negative Temperature Coefficient (NTC) Thermistor
Sensor Accuracy	±0.5°F (0.3°C), displayed to nearest whole degree at wall sensor
Power: Battery	3.6 Volts Lithium AA (SAFT Part Number LS14500BA). (Commonly available at Batteries Plus and other battery distributors.)
Battery Life	Typical 5-year life (Actual time varies based on operating environment, WRS model, and settings.)

Wireless Room Sensor (WRS) and Room Sensor Transceiver (RSX)	
Modulation	O-QPSK Direct Sequence Spread Spectrum radio in accordance with IEEE 802.15.4 specification
Frequency	15 channels of operation in the 2.4 GHz international license free ISM band (IEEE 802.15.4 radio channels 11 through 25) 2405 to 2475 MHz - 5 MHz channel spacing Channel hops as necessary to avoid interference (If desired, the hopping feature can be disabled to remain on one channel.)
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
Range	Typical indoor range of 25 to 100 ft (8 to 30 m) (Actual range varies based on environmental conditions.)
Operating Temperature	32°F to 122°F (0°C to 50°C)
Operating Relative Humidity	20% to 90% relative humidity (non-condensing)
Dimensions	WRS L 4.50" × W 2.75" × D 1.21" (114 mm × 70 mm × 31 mm) RSX L 4.50" × W 3.5" × D 1.35" (114 mm × 89 mm × 34 mm)

Ordering Information

Description	Part Number
RSX Only	
RSX (Siemens Logo)	563-069
WRS Only (White Housing, Battery Included)	
WRS Sensing Only (Siemens Logo)	QAA2291.EWSC
WRS Sensing with Display* (Siemens Logo)	QAA2291.DWSC
WRS Sensing with Display*, Override, and Setpoint (Siemens Logo)	QAA2291.FWSC
WRS Sensing Only (No Logo)	QAA2291.EWNC
WRS Sensing with Display* (No Logo)	QAA2291.DWNC
WRS Sensing with Display*, Override, and Setpoint (No Logo)	QAA2291.FWNC
Accessories	
Replacement Battery	See Specifications
Direct Mount Antenna	563-007
Remote Mount Antenna	563-008
WRS/RSX Auto-Binding Cable	563-207
RSX/TEC Connection Cable (3 ft)	563-210-01
RSX/TEC Connection Cable (10 ft)	563-210-02
RTS Passkey (to change display to DIAG mode)	544-643A

* Field selectable to display either Fahrenheit or Celsius units.

Regions Where this Product Is Sold

Australia, China, Canada, Europe, Hong Kong, Korea, Mexico, New Zealand, Singapore, Taiwan, and USA.
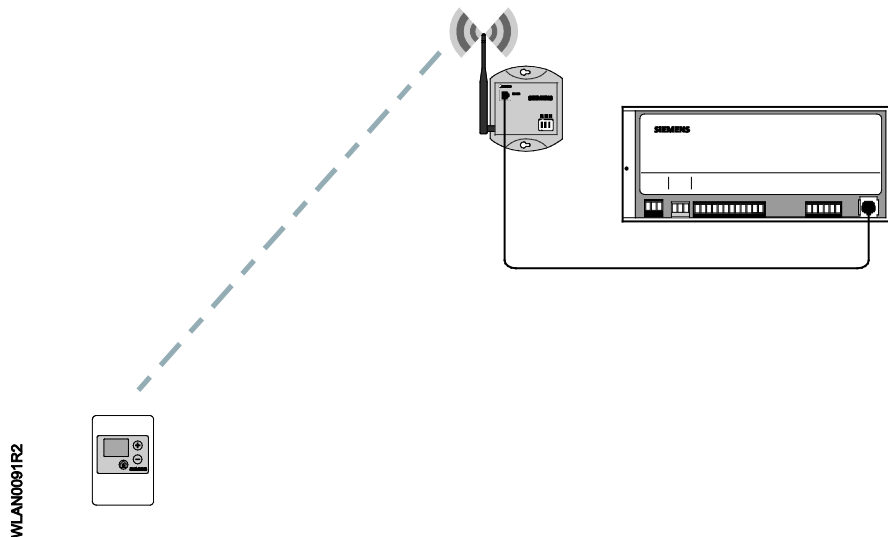

WLAN0091R2

Figure 2. WRS Communicating with RSX/TEC.

Figure 3. Room Sensor Transceiver (RSX).

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