SIEMENS

Installation Instructions
Document No. 129-485
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Wireless TEC Room Temperature Sensor (Mesh)

Figure 1. Wireless Room Temperature Sensor.

Product Description

The APOGEE® Wireless Room Temperature Sensors eliminate the need to run wire between the Terminal Equipment Controllers (TECs) and their respective room temperature sensor. The sensors communicate with the Field Level Network Transceivers (FLNXs), mounted at the TECs, that also support the Wireless Field Level Network (WFLN) Version 2.

Product Numbers

QAA2290.EWSC	Sensing only*
QAA2290.DWSC	Sensing with temperature display *
QAA2290.FWSC	Sensing with override, setpoint, and temperature display*

* **NOTE:** Field selectable Fahrenheit or Celsius.

Accessories

544-643A	RTS passkey (to change display to DIAG mode)
N/A	Replacement 3.6 Volts lithium AA battery –SAFT part number LS14500BA (see *Field Purchasing Guide*)
540-143	Laptop computer cable (RJ-11 to DB-9)
141-570	Lockable Thermostat Guard vented, clear plastic

Related Products

Wireless Field Level Network (WFLN)

563-054	Field Level Network Transceiver (FLNX)
563-055	Field Panel Transceiver (FPX)
563-056	Wireless Transceiver Tool (TLX)

Expected Installation Time

10 minutes

Caution Notations

CAUTION:	⚠	Equipment damage or loss of data may occur if you do not follow a procedure as specified.

Prerequisite

Associated FPX and FLNXs are installed per *WFLN Series Wireless Field Panel Transceiver (FPX) (Version 2) Installation Instructions* (563-200), *WFLN Series Wireless Field Level Network Transceiver (FLNX) (Version 2) Installation Instructions* (563-201), and WFLN commissioned per *Start-up and Troubleshooting Procedures* (149-0649).

Required Tools

- Phillips screwdrivers, sizes 1 and 2
- Medium and small flat-blade screwdrivers
- 1/16” hex key
- Medium-duty electric drill and 3/16-inch (4.8 mm) drill bit
- Small level and tape measure

NOTE: Depending on the actual installation (surface mounting) some of these tools may not be required.

Mounting Information

⚠ **CAUTION:**

Do not mount the WRTS within 3 feet of other RF devices such as microwave ovens, Wi-Fi/802.11 access points, etc.

WRTS Installation

1. Select a location for the WRTS, following the standard rules for room temperature sensor placement. Locate the WRTS no further than 100 feet from the nearest FLNX on its WFLN, ideally in a location where there are no major RF obstructions (for example, metal or concrete walls) between the two.

   Always mount the sensor vertically. Locate the sensor as follows:

   - Per design specifications, and local regulations.
   - Where the air circulates around it freely (not in recessed areas or behind doors).
   - Allow a minimum of 4 inches (10 cm) free space above and below for proper airflow and the front cover removal tool.
   - Away from drafts caused by doors, windows, outside walls, air registers, return air plenums, etc.
   - Away from heat sources such as strong lights, fireplaces, direct sunlight, etc.
   - On an inside wall, about 5 feet (1.5 m) above the finished floor.
   - The line of sight distance (through walls) to the nearest FLNX ideally should be less than 100 feet (30 m).

2. Mount the WRS base plate to the wall.

   - If used, leave sufficient room to install the Lockable Thermostat Guard. See *Lockable Thermostat Guard Technical Instructions* (155-723).
   - If mounting to drywall, see *Drywall Base Plate Mounting* for instructions.

3. Remove the plastic insulating strip between the battery in the WRTS battery holder (or insert the battery) to power-up the WRTS.

   NOTE: Even though the WRTS is now powered, it will stay in a low-power sleep mode until commissioned.

   If the WRTS has an LCD panel, the displayed value will not change until the WRTS is bound to an FLNX/TEC.

4. Snap the sensor front to the sensor base plate by first hooking the sensor front to the top latches, and then rotating the cover downward until it latches.

5. Loosen the safety set screw at the bottom of the base one or two revolutions to lock the cover to the base. Be careful not to loosen too far as the screw can be completely removed from the base.

   NOTE: There is a perforated label containing the 16-digit EUID number on the back of the WRTS. It can be removed and used for wireless communications with the WRTS using the TLX.

6. Commission the WRTS per the *WFLN Start-up Procedures* (140-0649)

   CAUTION:
   If a WRTS cannot communicate with its FLNX for an extended period of time due to the WFLN not being commissioned or the FLNX is out of range, remove the battery to avoid excessive battery drain.

Drywall Base-Plate Mounting (Figure 2)

1. Using the sensor base plate as a template, mark the top and bottom mounting hole locations for drywall mounting.
2. Drill two 3/16-inch (4.8 mm) mounting holes and mount the two wall anchors.
4. Orient the **UP** arrow on the base plate at the top and mount on the wall as follows:
   a. Level the sensor base plate.
   b. Tighten the two mounting screws to the sensor base plate.

   CAUTION:
   Over-tightening may cause the sensor base plate to crack or bend.

The installation is now complete.

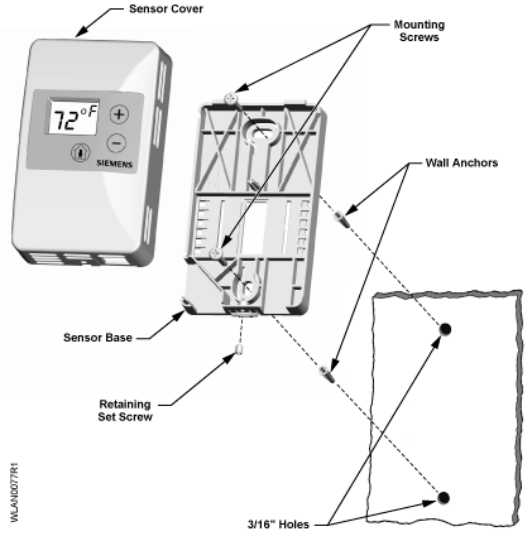

Figure 2. Drywall Mounting.

Section 7.1.5 of RSS-GEN

Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

FCC NOTE:
This device complies with Part 15 of the FCC rules. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

To comply with FCC's RF exposure limits for general population/uncontrolled exposure, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Interference Statement Part 15.105 (b)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Industry Canada Statement per Section 4.0 of RSP-100:

The term "IC:" before the certification/registration number only signifies that the Industry Canada technical specifications were met.

This device has been designed to operate with an antenna having a maximum gain of 5dBi. An antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50Ω.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than that required for successful communication.

The Wireless Room Temperature Sensor (Mesh) must be installed or replaced by professional installation personnel only.

DGT Interference Statement (Taiwan)

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

According to "Administrative Regulations on Low Power Radio Waves Radiated Devices" Without permission granted by the DGT, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to approved low power radio-frequency devices. The low power radio-frequency devices shall not influence aircraft security and interfere legal communications; If found, the user shall cease operating immediately until no interference is achieved. The said legal communications means radio communications is operated in compliance with the Telecommunications Act. The low power radio-frequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.

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