DT2650

Wireless Flexible Averaging Temperature Sensor

The DT2650 is a battery operated spread spectrum wireless flexible averaging temperature sensor. The DT2650 incorporates nine (9) sensors encapsulated at equal distance across the length of the probe for average duct temperature monitoring. The Meshnet900™ sensor Data-Link LED confirms the data transmission was received by the receiver for fast and reliable positioning of the sensor during installation. There is no need for special wireless installation equipment or site survey tool. Together with the Meshnet900™ receivers and controllers, these wireless sensors can be used with any LonWorks™, BACnet™, MODBUS communication protocols, or DDC system. The maximum radio transmission distance is dependent on building architecture and layout. The maximum open air transmission distance is one mile. In a typical commercial building with steel I-beam construction, concrete floors with reinforcing rods, and metal stud walls, it can be expected that transmissions will penetrate vertically one floor above and below the location of the sensor and horizontally through 200 to 500 feet of walls, furniture and air.

The DT2650 is covered by ACI's Two (2) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's web site, www.workaci.com.

SPECIFICATIONS

Input Voltage	Battery: One type 3.0V LiMNO2 1400 mAH (Duracell DL123A)
Sensing Accuracy (Temp/RH)	Sensing Ranges: -40 to 200ºF, Accuracy: +/- 1ºF, 12 Bit Resolution
Transmitter Characteristics	Operating Frequency: 902-928 MHz Transmitter Power: 11 dB
Open Field Range	One mile line of sight
Operating Temperature Range	0 to 160ºF (-17.7 to 71ºC)
Operating Humidity Range	5 to 95% RH, non-condensing
Data Transmission Interval	75 seconds (standard), 300 seconds (optional)
Sensor Length/Sensing Points	24'/9 sensing points
Product Dimensions	Housing: (L) 5.75" (W) 3.125" (D) 1.75"

ORDERING

Please select DT2650A as a Wireless Device (A) and one Transmission Interval (B).

A Wireless Device	B Intervals
○ **DT2650A** (Wireless Flexible Averaging Temperature Sensor, 24' of Flexible Probe & 9 Point Averaging)	○ **----** (Every 75 Seconds) ○ **300** (Every 300 Seconds)

BUILD PART NUMBER

After completing (A) & (B) from the above table, fill in the Part Number Table below. The "Sensor Series" is a factory default.
An example part number is offered.

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A		B

EXAMPLE: DT2650A - 300

Wireless duct sensors should be installed within 200 to 500 feet of the receiver. RR2552 signal repeaters can be installed as needed to increase transmission distance between sensors and receivers.

To select the proper sensor location, first install and power the receiver. Insert the battery into the sensor, being sure to observe polarity. The Meshnet900™ system does not require any additional wireless equipment to determine the proper location of the sensors. While the sensor is attempting to connect to the receiver, the Data-Link LED will blink rapidly 8-10 times every 10 seconds. Once a connection has been established, the Data-Link LED will blink once. The Data-Link LED will continue to blink once for every successful data transmission. The data transmission rate, normally 75-second intervals, is programmed into the sensor. To manually initiate a data transmission, press the push button switch located by the negative terminal of the battery.

Install the duct sensor through a 1" opening in the side of the duct. The flexible sensing probe can be installed onto hangers in the duct using tube clamps or wire ties. The flexible probe can be easily shaped to fit the duct and the bend should be a minimum of 2" away from the sensors to prevent damage. Mount the plastic housing of the sensor onto the ductwork using four (4) sheet metal screws.

Locate and record the wall sensor TXID Number located on a label on the back of the subbase prior to mounting.