OmniSense Wireless Sensor Networks for Facility Monitoring

Prevent Structural Damage Before it Starts

S-100 Wireless T, %RH, WME Sensor with 64K Reading Datalogging Memory quick start guide

Thank you for your purchase of OmniSense S-100 Wireless T, %RH, WME Sensor with 64K Reading Datalogging Memory. Follow the steps below to install your sensor and view data readings. Pay special attention to setting the clock!

1 Create a new account if you do not already have one

- You will need a monitoring account and a "online" gateway to see live data on your job site
- see "Monitoring quick start guide" for instructions on creating your account

2 FLASH Reading Storage

The sensor can store up to 65536 readings in FLASH memory. Readings are stored automatically if the sensor is unable to communicate with a gateway. When memory is full the data continues to be stored and oldest readings are overwritten. Sensors are always powered on and there is no way to prevent the storage of readings so when sensors are stored for extended periods of time the reading memory will fill to capacity. The next time the sensor is placed near a gateway it will upload all stored readings. This can take hours and may be inconvenient in which case you can press the push button for at least 5 seconds which will reboot the sensor and then safely erase the reading storage FLASH memory.

3 Button and LED

The S-100 has a pushbutton circled in the picture to the right. Just to the left of the pushbutton is a blue status LED. In normal use you do not need to use either of them but they can be helpful as follows:

- Test sensor - short press button resets sensor which starts the sensor's power on self-test.
    - ~2 seconds after button is released the self-test completes and the LED will go on solid for 1 second indicating self-test passed. If the self-test fails the LED will not go on.
    - ~3 seconds later the status LED will blink rapidly if it has communicated with a gateway.
    - ~18 seconds after that the sensor will transmit a valid reading to the gateway which can then be viewed on the monitoring web site.
- Test sensor and Erase Reading Storage FLASH – Press button for at least 5 seconds and then release which will reboot the sensor and then safely erase the reading storage FLASH memory.

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4 Setting Sensor Date and Time

The S-16 sensors are unique in that they are designed to log data with no gateway present. To do this, they need to know the current date and time. Sensors have a real time clock which is battery backed up that maintains the current date and time used to "timestamp" sensor readings. Sensors are shipped with the battery installed and the clock set to the correct date and time. There is no need or reason for users to remove the battery except when the battery is dead. Battery life is typically 5 years when sensors are set to read every 5 minutes and can be as long as 15 years when set to read once per hour. If, however, you have removed the battery AND you plan to rely on the sensors ability to log readings without a gateway within wireless range then you must follow these instructions to set the sensors date and time:

- Sensors ***must be near a gateway that is online and assigned to a job site***
- Install the sensor battery.
- Push the sensor reset button for 1 second. The LED will light up when button is pushed. 2 seconds after button is released LED will light up for 1 second to indicate the sensors power on self test has passed. 5 seconds later the LED will blink rapidly indicating it has communicated with a gateway and its clock has been set
- Verify sensor readings on the OmniSense Monitoring web site are showing a current date and time

!!If the battery is removed the sensors date and time have to be set again!!

5 Installing sensors

- Refer to "Sensor Installation Manual" for installation instructions.

6 Viewing sensor data

- see "Monitoring quick start guide" for instructions on viewing data through your OmniSense monitoring account