

AVIDSmartSensors™ - Temperature/Humidity



AVIDSmartSensors Temperature and Relative Humidity sensor is a battery operated digital temperature and relative humidity sensor with a microprocessor controlled 418 MHz, FCC certified radio transmitter. It has an on board time of day clock that allows it to spend most of the time in a low power quiescent state. At predetermined time intervals the clock will wake up the onboard microprocessor. Unique serial number information digital temperature and relative humidity data are read from a Dallas Semiconductor DS18B20 digital temperature sensor and the Honeywell relative humidity sensors. This information is combined with a CRC-16 error check and transmitted in a very short data packet that results in a transmitter on time of only 15 milliseconds. This architecture allows the Sensor to consume very low energy resulting in a battery life of up to 5 years.

Main Features

- § Measures Temperature and Relative Humidity
- § Up to 600-foot transmission range
- § Transmission rates from 10 to 17 seconds random
- § Patent Pending Modulator
- § Battery life up to 5 years
- § Very small (1.3" X 2.1" X .6") ABS Enclosure
- § Broad operating temperature range
- § Complies with part 15 of the FCC rules
- § Water resistant coating on PCB
- § Internal Loop antenna

The electronics are coated with a conformal material that provides a moisture barrier against condensation. Submersion in water is not recommended. A hole in the top ABS cover permits a special tool to be inserted to activate the service switch. The Sensor is shipped with the transmitter turned off (anytime the Sensor is to be shipped the transmitter should be turned off or must be placed in a shielded container to prevent interference that might cause shipping problems). Start the Sensor by removing the paper strip from the battery and pressing the service switch (you will feel the button click). When the service switch is pushed a data transmission occurs immediately and a special mark is introduced in the ID field of the transmitted data packet to indicate which sensor is in service or installation. The service switch is also used to put the Sensor in a quiescent mode (no transmissions and very low power consumption). This is the state the Sensor is in when you receive it from the manufacturer.

Parameter	Units
Transmission Rate	10-17 seconds random
Shelf Life with Battery Installed	5 Years in quiescent mode (10 years with optional battery)
Dimensions (enclosure)	1.5 W X 2.1 H X .6 D (inches)
Weight	1.5 oz.
Storage Temperature	-40° to 70° C
Operating Temperature	-40° to 70° C
Humidity	0% to 100% non-condensing
Battery Life with Transmission	2-5 years with TX period of 10-17 seconds
Battery	3.6 Volt Lithium
FCC Certified	FCC ID: M5ZWOWTHL



AVIDwireless
2129 Martin Way, Ste 200
Bedford, TX 76021
817-510-5301

Email:
sales1@avidwireless.com
Website:
www.avidwireless.com