



418 MHz Transmitter

FEATURES

- 10K thermistor transmitter
- Transmits unique ID and thermistor data
- Up to 600 foot transmission range
- Transmission rates from 10 to 17 seconds random
- Up to 100 transmitters can coexist
- Battery lasts from 6 to 10 years
- Very small (1.3" X 2.1" X .6") ABS Enclosure
- Complies with part 15 of the FCC rules
- Water resistant coating on PCB
- CRC-16 checked Status, ID, and thermistor data
- Internal Loop antenna
- Low Cost



DESCRIPTION

The Point Sensor Thermistor wireless transmitter is a battery operated 10K thermistor interface with a microprocessor controlled 418 MHz. FCC certified radio transmitter. The Sensor 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 is read from a Dallas Semiconductor 1-wire digital device and thermistor data is read from a 12-bit analog to digital converter. 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 10 years.

The electronics are coated with a conformal material that provides a moisture barrier against condensation. Submersion in water is not recommended. An external pushbutton in the top ABS cover activates 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 momentarily pushing the service switch. 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. Push and hold the service switch for 5 seconds or more to enter this powered down state.

Transmission rate	10-17 seconds random
Shelf life with battery installed	10 Years in quiescent mode
Dimensions (enclosure)	1.5 W X 2.1 H X .6 D (inches)
Weight	1.5 oz.
Operating Temperature	-40° to 85° C
Humidity	0% to 90% non-condensing
Battery life with transmissions	6-10 years with tx period of 10-17 seconds random
Battery	3.6 volt ½ AA Lithium
FCC Certified	FCC ID: M5ZWOWANA