

Point Sensor Counter/Temperature-900 3005-117



FEATURES

- 24-bit Digital Counter with 30-bit unique ID
- Counts up to 30 pulses per second
- Integrated 100mw, 900 MHz SSFH radio for long range performance
- Range Indoor: Up to 1300 feet
- Range Outdoor: Up to 1 mile with standard antenna
- Battery lasts up to 2 years at 5 minute transmit intervals
- Very small (3.25" X 2.5" X 1.125") ABS Enclosure
- Complies with part 15 of the FCC rules
- CRC-16 error checked Status, Counts, ID and Temperature
- External ¼ wave antenna
- Conformal coated

DESCRIPTION

The Point Sensor Counter/Temperature 900 wireless transmitter is a battery operated digital counter with a microprocessor controlled 900 MHz FCC certified radio transmitter. The Point Sensor Counter/Temperature 900 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 and counter data is read from a 24-bit internal counter register. This information is combined with a CRC-16 error check and transmitted in a very short data packet that results in a very short transmitter on-time. This architecture allows the Point Sensor Counter/Temperature 900 to consume very little energy and a battery life of up to 2 years.

The Point Sensor Counter/Temperature 900 electronics are coated with a conformal material that provides a moisture barrier against condensation. Submersion in water is not recommended. An internal reed switch permits a user to activate the service switch with a magnet. A quick swipe of a magnet across the "Service" label will activate the service switch. When you perform this operation, 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 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). The sensor is started by sliding the On/Off Switch away from the SMA antenna connection. The Point Sensor Counter/Temperature 900 sensor can be turned off by sliding the On/Off switch towards the SMA antenna connection.

Transmission rate	Preprogrammed at factory (5 minutes default)
Shelf life with battery installed	10 Years in quiescent mode
Dimensions (enclosure)	3.25 W X 3.25 H X 1.375 D (inches)
Weight	4.7 oz.
Storage Temperature	-40° to 85° C
Humidity	0% to 90% non-condensing
Input	208 to 5.5 vdc pulses (Up to 30 pulses per second)
Battery life with transmissions	Up to 2 years
Battery	(2) 3.6 volt Lithium Thionyl Chloride
FCC Certified	FCC ID: OUR9XSTREAM

Point Six Wireless
Unique, High Value Wireless Solutions

Installation and Operation Instructions

Point Sensor Counter/Temperature 900

The Point Sensor Counter Temperature wireless temperature sensor transmits a 24-bit accumulated count, temperature, and a unique serial number to a 900 MHz receiver. The Point Sensor Counter/Temperature is enclosed in a high impact ABS enclosure for direct surface mounting in the environment to be measured. Point Sensor Counter/Temperature is battery operated. Transmission times are preprogrammed at the factory (default rate is every 5 minutes).

Application: Apply the sensor to the surface to be monitored with double-sided adhesive tape or with screws through the flanges.

Start/Stop Function: The sensor is started when the On/Off switch is moved away from the SMA antenna connector. The Sensor has an internal reed switch (indicated as "Service" on product label). Momentarily placing a magnet next to this switch will cause the device to transmit a special installation status mark in the data packet immediately after the magnet is removed. The immediate transmission of counter value, temperature value, ID and installation status mark will occur anytime the reed switch is activated. The Point Sensor Counter/Temperature 900 may be placed in a quiescent state (no transmission) by sliding the On/Off switch towards the SMA antenna connector.

Battery: Two 3.6 Volt lithium batteries powers the wireless counter/temperature sensor. The device will transmit data for as long as 2 years at a transmission rate of once every 5 minutes. The electronic components are completely covered with a water resistant coating to protect from condensation. The user can replace the batteries.



**FCC ID: OUR9XSTREAM
MADE IN USA**

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES, 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 UNDESERED OPERATION

Wireless Transmitter Packet-Data Specification

Counter/Temperature Sensor Data Format

“CountAnalog” (74/73)

IDSSSSSSSSSooooootttteeCCCCKK<CR>

Note: All fields are in ASCII Hex

“ID”

The device type field: Counter-Analog-Status has device type 74 hex. A 73 hex when in service mode.

“SSSSSSSS”

The MS-30 bits of these 4-bytes are the serial number of the Counter-Analog transmitter. The LS-2 bits are the status flags for the switch input status. The LS bit (bit-0) is the Open status flag and the next most significant bit (bit-1) is the Closed status flag.

“oooooo”

This 24-bit field is the counter value stored LS-byte first. Count of switch openings.

“tttt”

This field is signed 16 bits stored MSB first (bits 15-8) and LSB last (bits 7-0) from left to right. This field has a possible range of -32768 to 32767. This is a general purpose field and may contain 8 bit or 12 bit data.

“ee”

Bits 0-5: enumerated Engineering units for 1st Analog. See the section “Enumerated Engineering Units” for more information. Bits 6 and 7: reserved (always 0).

“CCCC”

This field is the CRC-16 error check as was originally received and checked. This CRC is over the first 11 bytes of the packet starting with the device type and ending with but not including CRC-16.

“KK”

This field is the mod 256 sum of all the binary data values as represented by the ASCII hex values in the response but does not include the <CR>.