

# Product Data Sheet

## SWS-DPC Wireless Pulse Counters



Spinwave Systems' Pulse Counters are used to wirelessly transmit electric/water/gas meter values (accumulated pulses and pulses per time) and make them available as BACnet, LON or Modbus variables using Spinwave's BMS Protocol Interface or as digital outputs (pulse replication) using a BMS I/O Interface.

The Pulse Counter consists of a high-power radio and a signal conditioning module. The radio is connected through a standard CAT5 cable to the signal conditioning module, providing data and power to the radio.

Pulse Counters can be battery or line-powered. A set of 6 D-Cell batteries will last for up to 8 years. Pulse counters are suited for both indoor and outdoor applications (when mounted in weather-proof enclosure).

Up to 31 pulse counters can be wirelessly connected to a single BMS protocol gateway for remote metering applications.

Wireless Repeaters/Routers are available to cover large indoor or outdoor areas.

### Real-World Ready

Ultra-high reliability means that the wireless sensor network (based on IEEE 802.15.4) outsmarts changing RF interferences with self-adapting frequency agility (patent pending).

Self-forming and self-healing wireless mesh network for robust operation.

Sophisticated power management results in long battery life. Battery and communication health is continuously monitored.

### Flexibility Included

Wide range of mounting options.

Interfaces to virtually any building automation (DDC) system.

Sensors can be battery operated or line powered.

Sensor parameters and channel mapping can be easily changed wirelessly.

### Order Information

**SWS-DPC:** Wireless pulse counter

**SWSRP:** Wireless mesh repeater/router

**SWRF-IOR:** High powered wireless receiver module and remote direct I/O interface

**SWRF-LON:** High powered wireless receiver module and LONWORKS interface

**SWRF-BACNET-IP:** High powered wireless receiver module and BACnet IP interface

**SWRF-BACNET-MSTP:** High powered wireless receiver module and BACnet MS/TP interface

**SWRF-MODBUS-TCP:** High powered wireless receiver module and Modbus TCP interface

**SWRF-MODBUS-RTU:** High powered wireless receiver module and Modbus RTU interface

**SWRF-ASCII:** High powered wireless receiver module and ASCII interface for PC-based data logging

# Specifications

## Enclosure

- I/O base: PVC/Polyamide 6.6, gray, open class
- RF receiver: ABS plastic, UL94-5VA

## Installation

- Surface mount or DIN Rail mount

## Operating Conditions

- 40°F to 185°F (-40°C to 85°C)
- 5% to 95% R.H. non-condensing

## Storage Conditions

- 40°F to 185°F (-40°C to 85°C)
- 5% to 95% R.H. non-condensing

## Radio Characteristics

- 2.4GHz, IEEE 802.15.4
- Receiver Sensitivity  
-95dBm
- Receiver Adjacent Channel Rejection  
+/-5MHz, 46/39 dB
- Receiver Alternate Channel Rejection  
+/-10MHz, 58/55 dB
- Open field Range  
up to 3500 ft. (1 km)
- Transmission Interval  
min. 21 seconds, user configurable

## Power

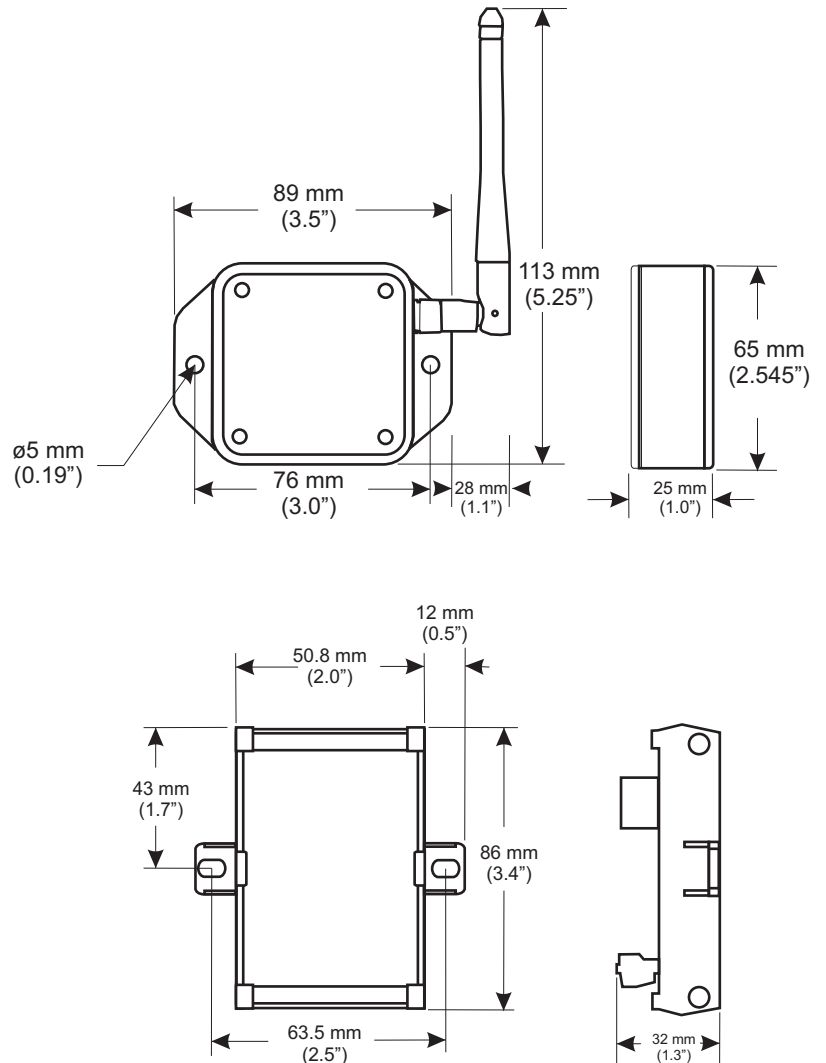
- 3.5VDC to 6VDC, 200mA burst, 250µA average
- Radio will automatically assume repeater/router functionality when powered between 5.5VDC and 6.0VDC

## Interfaces

- 1 pulse input for dry contact, 90Hz max
- DC power connector

## Agency Approvals

- FCC part 15, Class B
- CE



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