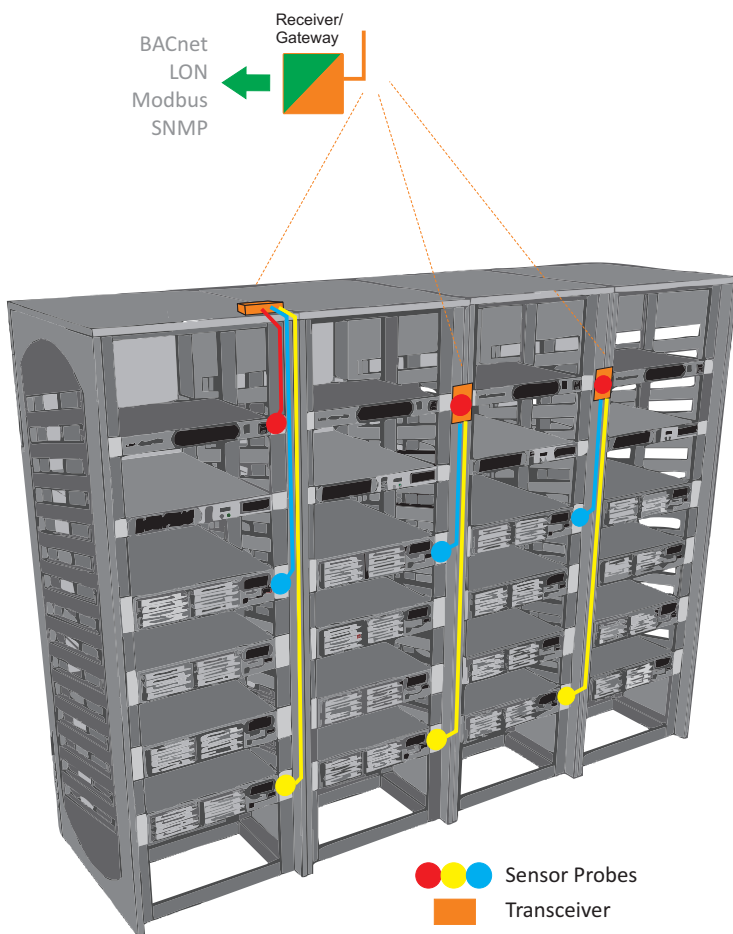


# Product Data Sheet

## SWS Wireless Data Center Sensors



Rapidly escalating connectivity requirements, explosion of cloud computing, and an increasing emphasis on data mining are driving a major expansion of data center capacity.

Monitoring data center environments is becoming more important as modern equipment produces very concentrated heat loads.

Spinwave Systems' wireless sensors enable precise air flow management and help eliminate physical threats to maximize energy efficiency and equipment uptime.

Spinwave's wireless sensors can be installed easily and are ready to be interfaced to any building automation system, data center monitoring application or network management tool.

## Benefits

**High Reliability:** The Spinwave A3 Wireless Sensor Network (WSN) utilizes mesh architecture and features RF interference avoidance through self-adapting frequency agility.

**Easy to Maintain:** Sophisticated power management results in long battery life of 3 to 8 years, depending on user-selectable transmission intervals. Battery health and communication health are continuously monitored.

**Flexible and Scalable:** System can grow from a few to hundreds of monitoring points. Sensors can be easily added, moved, or removed.

**Multiple Interface Options:** The A3 WSN interfaces to virtually any building automation system (BMS), monitoring application or network management tool via Modbus, BACnet, LON, or SNMP.

**Install Quickly and Economically:** Wireless system can be installed with no disruption to data center operations.

**Proven:** Thousands of Spinwave sensors monitor high-profile data centers worldwide.

## Order Information

**SWS-T:** Wireless sensor with on-board temperature probe

**SWS-TEXT:** Wireless sensor with one external temperature probe (10K, type III thermistor included)

**SWS-TRH:** Wireless sensor with on-board temperature and relative humidity probe

**SWS-T-2TEXT:** Wireless transceiver with on-board thermistor and two external temperature probes (2x 10K type III thermistor bullet probes with 10' cable and mounting magnets included)

**SWS-3TEXT:** Wireless transceiver with three external temperature probes (three 10K type III thermistor bullet probes with 10' cable and mounting magnets included)

**SWS-TRH-2TEXT:** Wireless transceiver with on-board temperature and relative humidity sensor and two external temperature probes (2x 10K type III thermistor bullet probes with 10' cable and mounting magnets included)

**SWRP:** Wireless router/repeater, extends range

**SWRF-xxxx:** Wireless receiver/gateway (xxxx: MODBUS-TCP, MODBUS-RTU, BACNET-IP, BACNET-MSTP, LON, SNMP)

# Specifications

## Enclosure

- Cover: Cyclopedia C 2800, white RAL 9010
- Base: black RAL 9005
- Self-extinguishing, acc. to UL94-V0

## Installation

- Surface mount, indoors

## Sensor Range and Accuracy

- Temperature:
  - 32°F to 158°F (0°C to 70°C)
  - +/- 0.5°F (+/- 0.28°C)
- Relative Humidity:
  - 0 to 100% RH, +/- 1.8% @ 20%-80% RH

## Storage Conditions

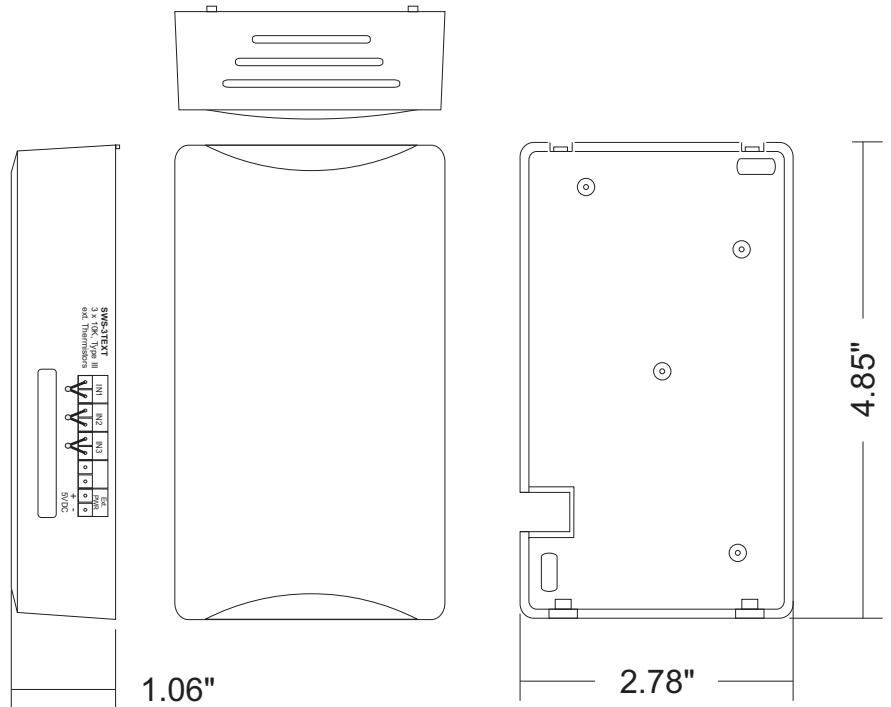
- -40°F to 176°F (-40°C to 80°C)
- 5% to 95% R.H. non-condensing

## Radio Characteristics

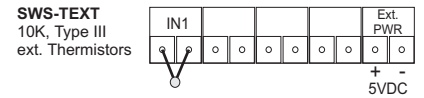
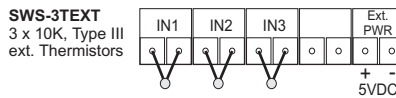
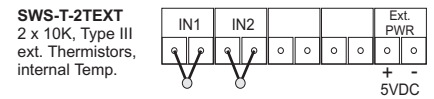
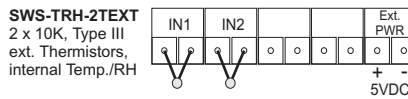
- 2.4GHz, IEEE 802.15.4
- Receiver sensitivity: -94dBm
- Receiver adjacent channel rejection: +/-5MHz, 45/30 dB
- Receiver alternate channel rejection: +/-10MHz, 54/53 dB
- Receiver channel rejection: +/-15MHz, 62/62 dB
- Open field range: up to 1000 ft. (300 m)
- Transmission interval: min. 21 seconds, user configurable

## Sensor Power

- 2 AA lithium batteries, e.g. Energizer® L91, 1.5V, 3000mAh
- Battery life: 3 to 8 years, depending on transmission interval and ambient temperature
- Optional power supply: 110-230VAC/5VDC



## External Connections



0910C

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