

Oceana Sensor

Wireless Thermocouple Sensor

“Truly Wireless Temperature Monitoring”

Oceana Sensor's *Wireless Thermocouple Sensor* is a stand-alone, single point wireless temperature node. It incorporates market required features for ultra low power consumption with power management technology, appropriate bandwidth and resolution, and internal signal processing. More importantly it addresses the market need to use smaller self-sufficient devices to monitor processes, machinery and perform condition-based maintenance. Deploying a network of single-point wireless sensors allows Oceana Sensor to penetrate its target markets by providing broader and more flexible solutions.



The *Wireless Thermocouple Sensor* is a Type K Thermocouple based on 802.11 wireless communications, thus allowing the user to deploy it with existing network infrastructures. This device is IP addressable which provides for easy network and monitoring management. Expected battery life is 5 years which will be *extended* or *reduced* based on the user's specific duty cycles.

The Wireless Temperature Sensor offers:

- Stand-alone single-point sensing capability
- Type K thermocouple accuracy and ruggedness
- IP addressable 802.11 communication
- User-configurable data acquisition parameters
- Long battery life
- **Reference design that is portable to any standard sensor housing design**

Wireless Temperature Sensor - Short Specification

Hardware

Item	Value
Sensor	Type K Thermocouple in NB3 Omega Package
Battery	1 AA Lithium-thionyl chloride
Battery life	5 years*
Electronics	WSeM™
Sensor housing Sensor Probe (user configurable)	Aluminum Stainless Steel
Size	~XX long x XX diameter (both depend on user chosen package and probe)
Temperature range	-40 – 85°C (-40 – 185°F)

*Based on two measurements per day.

Measurement

Item	Value	Comments
Measurement Range	0 – 450°C	
Measurement Accuracy	±3°C	

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