



WETS03 Series



- Operating Temperature Range -40-125C (-40-250F)
- Operating Temp of Wireless Module -40-85C
- Temperature Error +/- .1C
- 900Mhz Wireless Communication
- Media – Liquid, Air, & Gas
- IP65 (& IP67)
- Auto Shut-Off (Sleep Mode)
- 10 Sec Time Constant

DESCRIPTION

The WETS03 is a 900Mhz wireless temperature sensor manufactured for simple measurements on a variety of applications. This temperature sensor was designed to supply an economical solution for industrial, consumer, and commercial wireless applications.

This simple plug-n-play device along with our PS9W (or PS9U) WIFI module allows you to be up and running in just a few minute. The Phoenix Sensors website provides complete connectivity to the device. The sensor will wake-up at set intervals and shut down automatically when it is not in use to preserve the battery. The battery version will last up 1.5 years in continuous (1 measurement/60 sec) use. Please contact us for Custom design availability.

The Mobile Software enables the user to evaluate data later. Set alarms to email or text you when the sensor hits particular temperatures.

- Consumer products
- Industrial Automation
- HVAC
- Pool Pumps
- Compressor
- Pneumatics

Maximum Environmental Ratings

Operating Temperature -10°C to 60°C (electronics) Storage Temperature Range-40°C to 125°C
Sensor Operating Temperature - 40°C to 125°C

Pumps – Pools, Spas, Water, Hydraulic, etc.



Fig.1 - Industrial Option

The WETS03 is a wireless temperature sensor that can measure from -40-150C (-40-302F) , so it is ideal for many Pump applications. For monitoring , the WETS03 offers remote temperature measurement of any systems. In Fig. 1, we show the industrial version, whose battery powered solution can last up to 18-months of continuous (1 measurement/60 seconds) use.



Water & Oil Temperature– Trucks, Race Cars, Vehicles



The WETS03 is a wireless Temperature sensor used in a variety of liquid level applications, such as Race Cars, Trucks, Liquid Tanks, Oil tanks, and Spas. Alternative sensors can be used to support high temperature applications (-40-350C).

HVAC – High & Low Side of A/C

The WETS03 is a wireless temperature sensor that can measure up to 125C (255F). It is accurate and robust enough for HVAC applications; if you need temporary remote Pressure and Temperature measurement of the system this sensor is your solution.



WETS03 Operational Characteristics

V ₊ = 3V, V ₋ = 0V, Temperature = 25°C					
PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Supply Voltage <small>(note 1)</small>	V _{DD}	2.2	3	5.5	V
Supply Current	I _{DD}	5	50	750	uA
Wireless Digital Output (900Mhz)	900Mhz				
Temperature Error (Null and Span) <small>(Note 2)</small>		-.25		+.25	C
Response Time	t _R		500	5000	ms
Time Constant (NTC)	TC		10		Sec
Operating Range (Battery & electronics)		-10		60	C
Operating Range Industrial <small>(Battery & Electronics)</small>		-40		85	C
Sensor Operating Temperature (NTC)	OT	-40		125	C
Time Constant (RTD)	TC		2		Sec
Operating Temperature (RTD)	OT	-40		350	C
UL Rating		UL Listed to UL508-4x specifications			
Wireless Range	Ft		250-300		FT
FCC Certifications (CE, FCC, Canada)		900MHz: ID:ZTL-RFSC1, IC:9794A-RFSC1; ARIB STD-T108 R210-103733.			

Notes:

1) Battery & Rechargeable Version - 3V battery operation 2) NTC (.1 C, & .5 C Options available), RTD (.1C accuracy)

Application Information

Package

The two piece body design is made of SS304 (or Brass), which allows for easy low-cost manufacturability and corrosion resistance. Vibration proof design for use in industrial applications. Plastic option is available for OEM custom designs.

Pressure port

1/4" -18NPT and 1/8"-18NPT threads are standard SS fittings. Other port fittings such as 7/16-20UNF, and 1/4" BSP are available for OEM customers.

Media

The pressure port is tolerant to most media including but not limited to oil, air, gas, and non-corrosive media to brass or SS304.

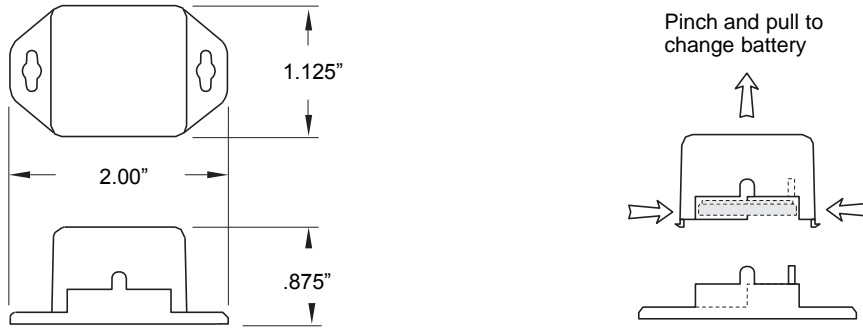
Wetted parts

When checking media capability, the wetted surface is composed of Aluminum and Silicon Gel.

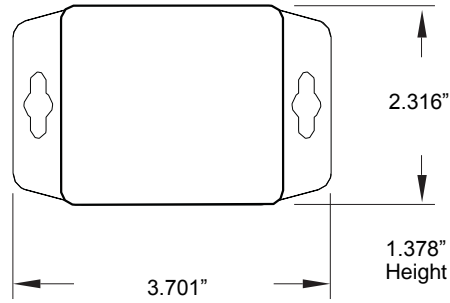
Temperature Ranges

Standard temperature ranges are -40-125C (-40-302F), -40-350C (-20-212F). Custom temperature ranges are available for OEM customers.

Mechanical Dimensions (inches)

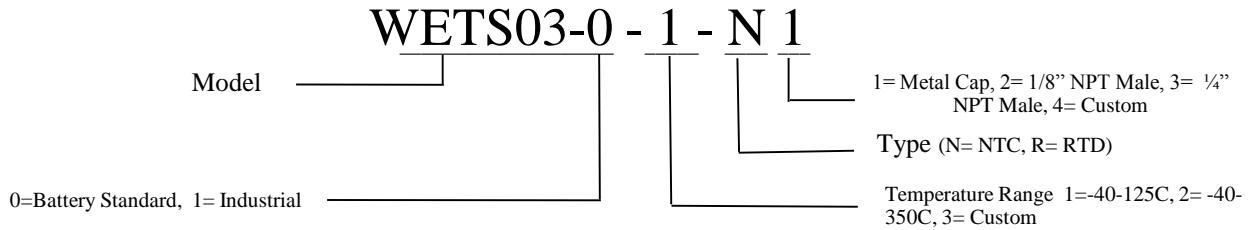


Pic. 1 - Battery Option Standard



Pic. 2 - Industrial Battery Option

Part Number Configuration



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