



## WEPS02 Series



- Wide Pressure Range
- -20-85°C Operating Temperature
- Compact Size
- Total Error Band 1%
- BLE Wireless Communication (IOS)
- 150-10,000 psi pressure ranges
- Absolute, Gauge, Vacuum
- Media – Liquid, Air, & Gas
- IP65 (& IP67)

### DESCRIPTION

The WEPS02 is a Bluetooth wireless pressure sensor manufactured for simple measurements on a variety of applications. This silicon pressure sensor was designed to supply an economical solution for industrial, consumer, and commercial applications.

Simply download the Phoenix Sensors application from our website and connect to the device. The sensor will wake-up with any kind of vibration and will shut down automatically when it is not in use to preserve the battery. The battery version will last up to 2 years in continuous (1 measurement/10 sec) use. Please contact us for Custom design availability.

The Mobile Software enables the user to store data to evaluate later. The sensor's on-board memory stores up to 200 hours of data for troubleshooting or evaluation of system pressure or temperature.

### APPLICATIONS

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

## Maximum Environmental Ratings

Operating Temperature ..... -20°C to 85°C  
 Storage Temperature Range ..... -40°C to 85°C

Proof pressure ..... 2x full scale pressure  
 Burst pressure ..... 3x full scale pressure (Max 12kPSI)

## Liquid Level – Trucks, Gas/Water Tanks

The WEPS02 is a wireless pressure sensor used in a variety of liquid level applications, such as Water Trucks, Liquid Tanks, Oil tanks, and Spas. It can measure down to 1” of H2O



## HVAC – High & Low Side of A/C



The WEPS02 is a wireless pressure sensor that can measure up to pressures of 500PSI. 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.

## Air Compressors

The WEPS02 is a wireless pressure sensor that can measure up to pressures of 500PSI, so it is ideal for most air compressor applications. For troubleshooting, the WEPS02 offers temporary remote Pressure and Temperature measurement of the system. The battery powered solution can last up to 12-months of continuous (1 measurement/10 seconds) use.



## Pumps – Water, Hydraulic, etc.



The WEPS02 is a wireless pressure sensor that can measure up to pressures of 500PSI, so it is ideal for Pump applications. For monitoring, the WEPS02 offers temporary remote Pressure measurement of the system. The battery powered solution can last up to 18-months of continuous (1 measurement/30 seconds) use.

## WEPS02 Operational Characteristics

$V_+ = 5V$ ,  $V_- = 0V$ , Temperature = 25°C

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Supply Voltage (note 1)	$V_{DD}$	2.2	3	3.5	V
Supply Current	$I_{DD}$	5	50	750	uA
Wireless Digital Output (BLE)	BLE				
Linearity (Note 2)		-0.25		0.25	%FS
Temperature Error (Null and Span) (Note 3)		-1		+1	C
Response Time	$t_R$		5	500	ms
Total Error Band (Note 4)		-1		1	%FS
Compensated Temperature Range	C	0		50	C
Operating Temperature Range	C	-20		85	C

Notes:

1) Battery & Rechargeable Version - 3V battery operation 2) Defined as best straight line 3) Measured from 0°C to 50°C 4) Measured over compensated temperature range -10-50C

## Application Information

### Package

The two piece body design is made of SS316, which allows for easy low-cost manufacturability and corrosion resistance. Vibration proof design for use in industrial applications. Plastic option is available for custom designs

### Stability

The silicon MEMS pressure sensor element is mounted to a ceramic base and sealed into the SS316 (or Brass) housing. The selection of thermally capability materials reduce the mechanical stress on the sensor resulting in greater stability over time and temperature.

Additional stability is gained from factory stabilization of all sensors.

### 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. Sensor will only work on a temporary basis in any non-air application. Sensor will need to have a period of time to dehydrate.

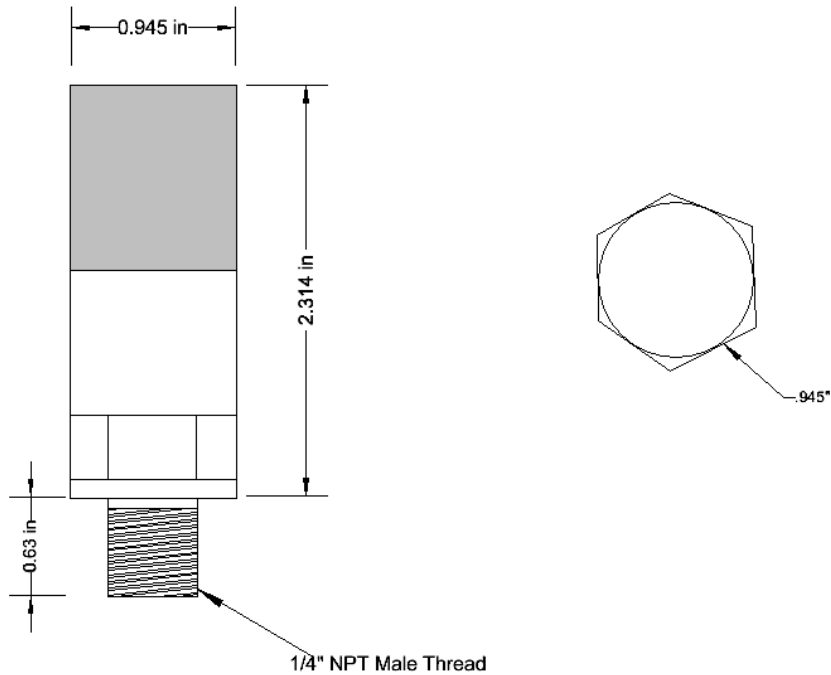
### Wetted parts

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

### Pressure ranges

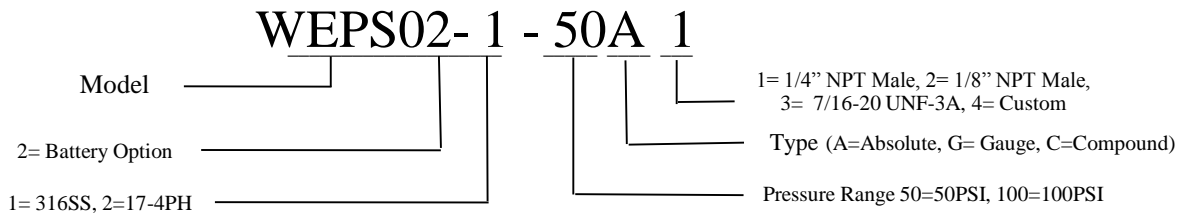
Standard pressure ranges are 15, 30, 50, 100, 150, 300, 1k, 3k, and 5k psi in absolute and gage. Custom pressure ranges are available for OEM customers.

## Mechanical Dimensions (inches)



**Pic. 1 - Battery Option**

## Part Number Configuration



## Standard Part Numbers

Model	Pressure Range PSI	Type	Max Over Pressure
WEPS02-0-50A1	50	Absolute	150
WEPS02-0-100A1	100	Absolute	200
WEPS02-0-300A1	300	Absolute	450

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