

- Uses 3-5x Less Power!
- 25 uA Power Consumption
- Battery Lasts up to 18 Months
- Connect up to 4 sensors simultaneously
- -40-85°C Operating Temperature
- Total Error Band .25% (.1% Option)
- BLE Wireless Communication (Android)
- 1-500 psi pressure ranges
- Absolute, Gauge, Vacuum
- Media – Liquid, Air, & Gas
- IP65 (& IP67)



### DESCRIPTION

The WEPS14 is a Bluetooth wireless pressure sensor manufactured for simple measurements on a variety of applications. This silicon pressure sensor was designed to supply a highly accurate, low-power wireless pressure transducer solution for industrial, consumer, and commercial applications. This variant of the WEPS04 introduces a new ultra low power mode option and a high accuracy pressure sensor. The WEPS14 uses 3-5x less power!

Simply download the Phoenix Sensors application from our website (Google Play or the Apple Store) and connect to the device. The sensor has the fastest update (200Hz) rate in the industry. Read and store synchronized data from four sensors simultaneously. The battery version will last up to 2 years in continuous (1 measurement/30 sec) use. Please contact us for Custom design availability.

New Mobile application software is available for all WEXS products on Google Play and the Apple Store to monitor Battery Life, RSSI, and up to 10 sensors simultaneously.

The New Mobile Software enables the user to store (1,500,000 Points) data to evaluate later.

### APPLICATIONS

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

### Maximum Environmental Ratings

Operating Temperature ..... -40°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 600PSI)

### Liquid Level – Trucks, Gas/Water Tanks

The WEPS14 is a wireless pressure sensor used in a variety of liquid level applications, such as Shallow Gas Tank monitoring, Liquid Tanks, Oil tanks, and Spas. It can measure up to 1” of H2O.



### HVAC – High & Low Side of A/C



The WEPS14 is a wireless pressure sensor that can measure up to pressures of 15,000PSI. It is accurate and robust enough for Flow Sensing applications; if you need temporary remote Pressure and Temperature measurement of the system this sensor is your solution.

### Dirty Air Filter Detection

The WEPS14 is a wireless pressure sensor that can down to pressures of 3PSI, so it is ideal for most air filter applications. For troubleshooting , the WEPS14 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 WEPS14 is a wireless pressure sensor that can measure up to pressures of 15,000PSI, so it is ideal for Hydraulic Pump applications. For monitoring , the WEPS14 offers temporary remote Pressure measurement of the system. The battery powered solution can last up to 24-months of continuous (1 measurement/30 seconds) use.

## WEPS14 Operational Characteristics

V <sub>+</sub> = 5V, V <sub>-</sub> = 0V, Temperature = 25°C					
PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Supply Voltage (note 1)	V <sub>DD</sub>	2.8	3	3.33	V
Supply Current	I <sub>DD</sub>	5	50	750	uA
Wireless Digital Output (BLE)	BLE				
Linearity (Note 2)		-0.1		0.1	%FS
Temperature Error (Null and Span) (Note 3)		-1.5		+1.5	C
Response Time	t <sub>R</sub>		5	60,000	ms
Total Error Band (Note 4 & 5)		-.25		.25	%FS
Compensated Temperature Range	C	0		50	C
Operating Temperature Range	C	-40		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 -20-60C  
5) .1% TEB option available on request.

## Application Information

### Package

The two piece body design is made of SS316L, which allows for easy low-cost manufacturability and corrosion resistance. Vibration proof design for use in industrial applications. Plastic or Brass option is available for custom OEM designs

### Stability

The silicon MEMS pressure sensor element is mounted to a SS316L header and sealed into the SS316 housing. The selection of thermally capable 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 some corrosive media compatible with SS316L.

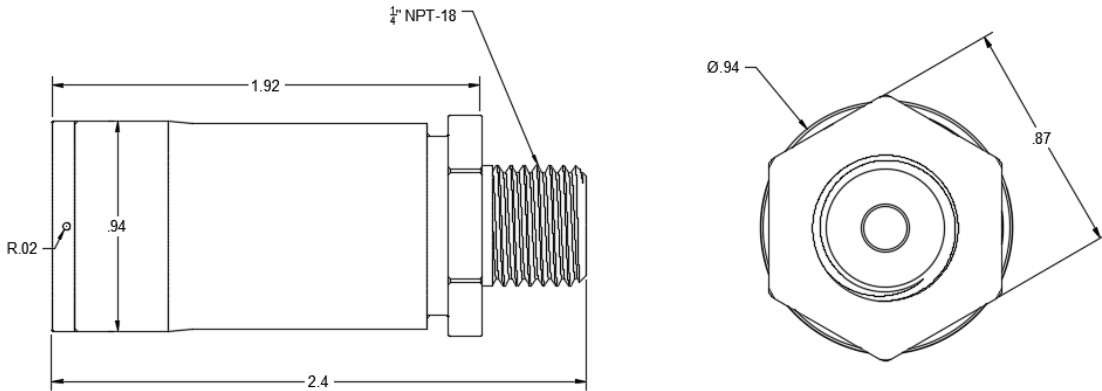
### Wetted parts

When checking media capability, the wetted surface is composed of SS316L and Viton.

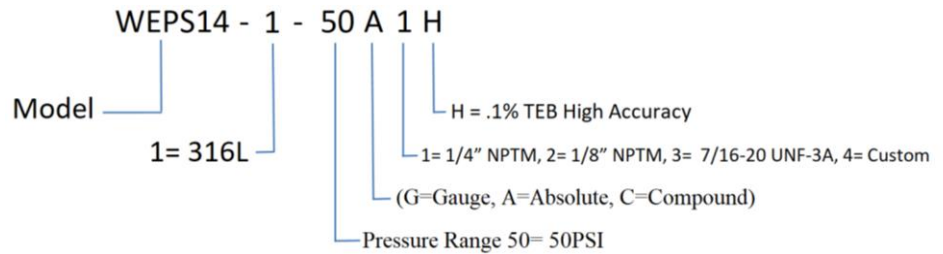
### Pressure ranges

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

## Mechanical Dimensions (inches)



## Part Number Configuration



## Standard Part Numbers

Model	Pressure Range PSI	Type	Max Over Pressure
WEPS14-1-50A1	50	Absolute	150
WEPS14-1-100A1	100	Absolute	200
WEPS14-1-300A1	300	Absolute	450

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