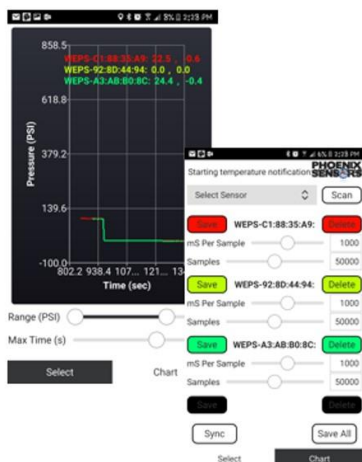




WEPS14 Series



- Uses 5x Less Power!
- 25 uA Power Consumption
- Sensor Lasts 12-18 Months While Connected
- Connect up to 4 sensors simultaneously
- -20-85°C Operating Temperature
- Total Error Band 1%
- BLE 4.0 Wireless Communication (Android)
- 3-15,000 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 an economical solution for industrial, consumer, and commercial applications. This variant of the WEPS04 introduces a new ultra low power mode option. Now, use 5x less power!

Simply download the Phoenix Sensors application from our website 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.

The Mobile Software enables the user to store (200,000 Points) data to evaluate later.

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 WEPS14 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 WEPS14 is a wireless pressure sensor that can measure up to pressures of 15,000PSI. 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.

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

$V_+ = 5V$, $V_- = 0V$, 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	60,000	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.

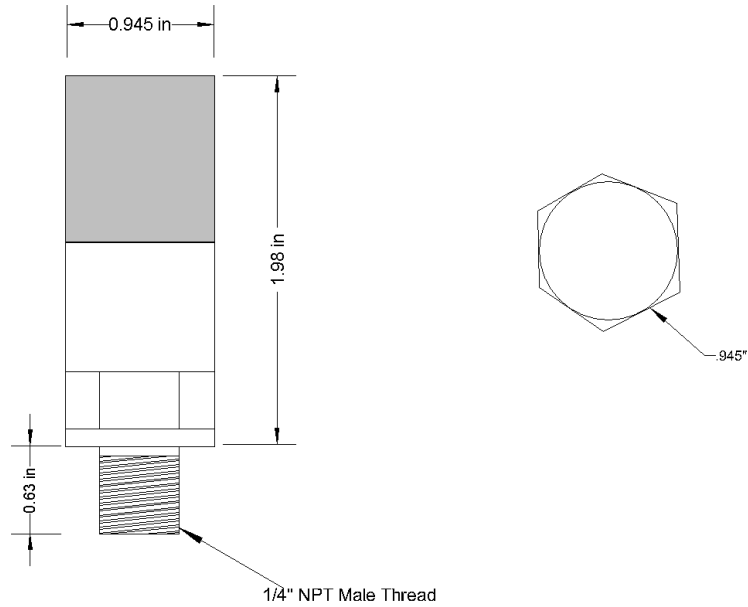
Wetted parts

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

Pressure ranges

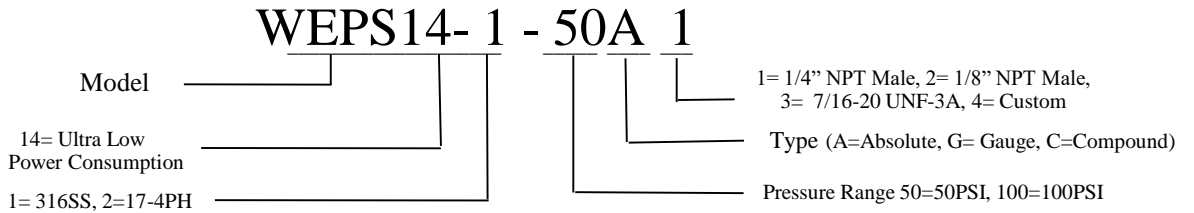
Standard pressure ranges are 5, 15, 30, 50, 100, 150, 300, 1k, 3k, 5k, and 10k psi in absolute and gage. Custom pressure ranges are available for OEM customers.

Mechanical Dimensions (inches)



Pic. 1 - Battery Option

Part Number Configuration



Standard Part Numbers

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

Ph: (480) 462-1810 sales@PhoenixSensors.com

Notice:

Phoenix Sensors LLC reserves the right to make changes to the product contained in this publication. Phoenix Sensors LLC assumes no responsibility for the use of any circuits described herein, conveys no license under any patent or other right, and makes no representation that the circuits are free of patent infringement. While the information in this publication has been checked, no responsibility, however, is assumed for inaccuracies.

Phoenix Sensors LLC does not recommend the use of any of its products in life support applications where the failure or malfunction of the product can reasonably be expected to cause failure of a life-support system or to significantly affect its safety or effectiveness. Products are not authorized for use in such applications.