WEPS37 Series

- Smallest Wireless Pressure Sensor in the World
- Low-Cost OEM Sensor
- 10Xs Faster (200Hz Update)
- Connect to 4 sensors simultaneously
- -40-105°C Media Operating Temperature
- Total Error Band 1%
- BLE 5.1 Wireless Communication
- BLE up to 100 Feet
- 1-300 psi pressure ranges
- Absolute, Gauge, Vacuum
- Media – Liquid, Air, & Gas
- Collect Synchronized Data from 4 sensors
- IP65 (& IP67)

DESCRIPTION

The WEPS37 is a Bluetooth wireless pressure sensor manufactured for simple measurements on a variety of applications. This 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 has the fastest update (200Hz) rate in the industry. Read and store synchronized data from four sensors simultaneously. The battery version will last up 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
- Pool Pumps
- Compressor
- Pneumatics

Maximum Environmental Ratings

Media Operating Temperature ……..... -40°C to 105°C
Storage Temperature Range ……..-40°C to 85°C

Proof pressure ……..…….. 2x full scale pressure
Burst pressure …….... 2.5x full scale pressure (Max 12kPSI)

WEPS37 Size Comparison

SMALL SMALLER SMALLEST!!

WEPS37 Applications

Liquid Level – Trucks, Gas/Water Tanks

The WEPS37 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 H20

Pool Pump Monitoring

The WEPS37 is a wireless pressure sensor that can measure up to pressures of 300PSI. It is accurate and robust enough for Pool Pump monitoring; if you need temporary remote Pressure and Temperature measurement of the system this sensor is your solution.

Dirty Air Filter Detection

The WEPS37 is a wireless pressure sensor that can down to pressures of 2 inches of water, so it is ideal for most air filter applications. For troubleshooting , the WEPS37 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.

WEPS37 Operational Characteristics

V_+ = 3V, 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)		-1.5		+1	C
Response Time	t_R		5	60,000	ms
Total Error Band (Note 4)		-1		1	%FS
Compensated Temperature Range	C	0		60	C
Media Temperature Range	C	-40		105	C

Application Information

Package

The two-piece body design is made of Acetal (Delrin) and SiO2 (Pressure Die), 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 SiO2 base and sealed into the Acetal (Delrin) 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 ¼" 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 work in water, oil, air, and any media compatible with Viton, brass (or SS), and Pyrex.

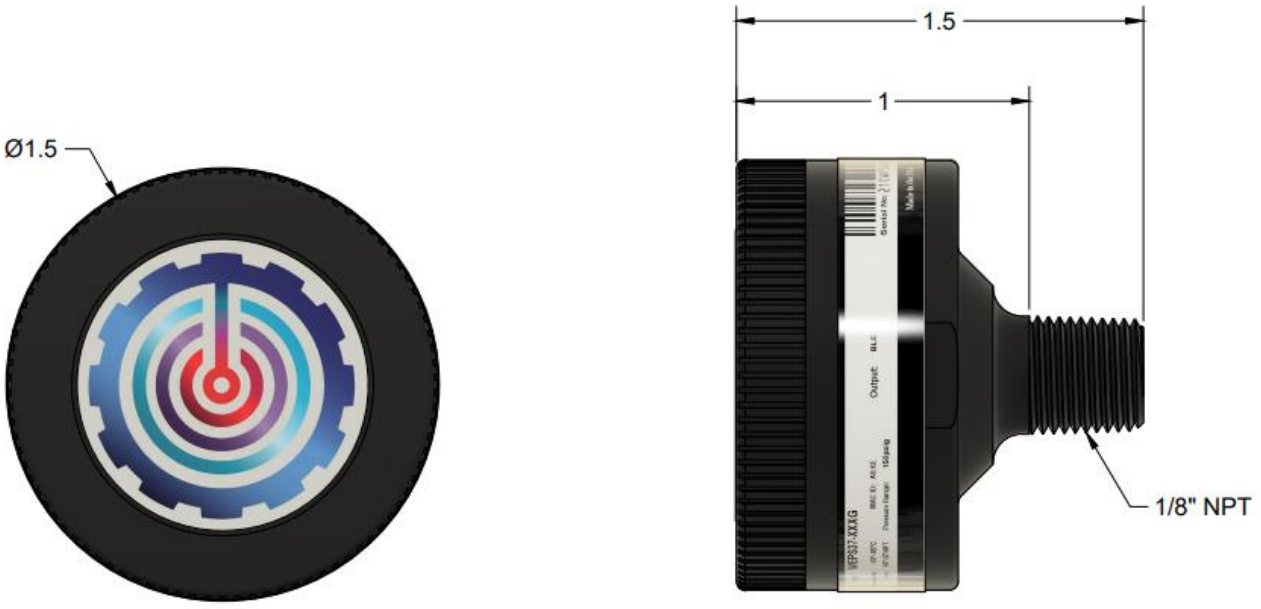
Wetted parts

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, or 300 psi in absolute and gage. Custom pressure ranges are available for OEM customers.

Mechanical Dimensions (inches)



Pic. 1 - 1/8" NPT

Part Number Configuration

WEPS37- 0 - 50 G 1

- Model: WEPS37
- 0= Delrin
- Pressure Range 50=50PSI, 100=100PSI
  Compound PSI Range: ±1 PSI, 5 PSI, 15 PSI, 50 PSI
- Type (A=Absolute, G= Gauge, C=Compound)
- 1= 1/4" NPT Male, 2= 1/8" NPT Male, 3= 7/16-20 UNF-3A, 4= Custom

Custom Options Available

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