



WEPS11 Series



- 10% Smaller (1.85" Tall installed)
- 10Xs Faster (200Hz Update)
- Connect up to 4 sensors simultaneously
- -20-85°C Operating Temperature
- Total Error Band 1%
- BLE Wireless Communication (Android)
- 3-300 psi pressure ranges
- Absolute, Gauge, Vacuum
- Media – Liquid, Air, & Gas
- Collect Synchronized Data from 4 sensors
- IP65 (& IP67)

DESCRIPTION

The WEPS11 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 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
- 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 2.5x full scale pressure (Max 12kPSI)

Liquid Level – Trucks, Gas/Water Tanks

The WEPS11 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



Pool Pump Monitoring



The WEPS11 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 WEPS11 is a wireless pressure sensor that can measure down to pressures of 2 inches of water, so it is ideal for most air filter applications. For troubleshooting, the WEPS11 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 WEPS11 is a wireless pressure sensor that can measure up to pressures of 300PSI, so it is ideal for Hydraulic Pump applications. For monitoring, the WEPS11 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.

WEPS11 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 brass (or 316SS) and PPS, 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 PPS 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 work in water, oil, air, and any media compatible with viton, brass (or SS), and pyrex.

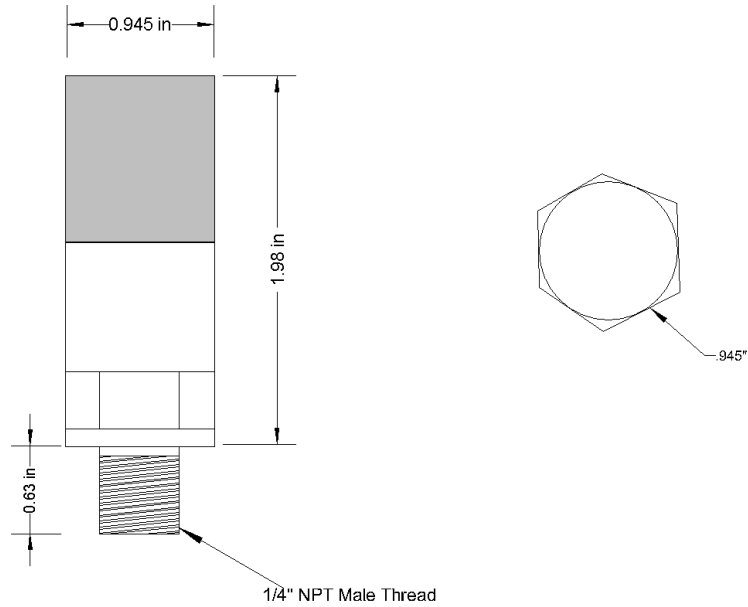
Wetted parts

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

Pressure ranges

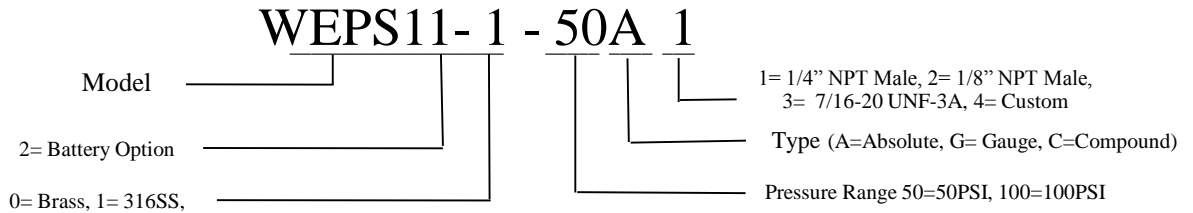
Standard pressure ranges are 5, 15, 30, 50, 100, 150, or 300 psi in absolute and gage. Custom pressure ranges are available for OEM customers.

Mechanical Dimensions (inches)



Pic. 1 - Battery Option

Part Number Configuration



Standard Part Numbers

Model	Pressure Range PSI	Type	Max Over Pressure
WEPS11-0-50A1	50	Absolute	150
WEPS11-0-100A1	100	Absolute	200
WEPS11-0-300A1	300	Absolute	450

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