

ERBESSD INSTRUMENTS®

# PHANTOM

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WIRELESS MACHINE SURVEILLANCE

# Machine Health Monitoring Solutions



## Wireless Technology

Phantom is the best all-inclusive battery powered wireless machine monitoring system worldwide.

Phantom's exclusive technology enables full frequency range diagnosis just like ICP Accelerometers.

## General Info

### Accelerometers

Triaxial + Temperature  
10 kHz FMax  
Full waveform and spectrum data  
Programmable Internal RMS Trigger  
Maximum 6400 Lines of Resolution

### Amperage

3 phases  
5 - 1000 Amps

### RPM

Rotation speed  
200'000 RPM

### Temperature

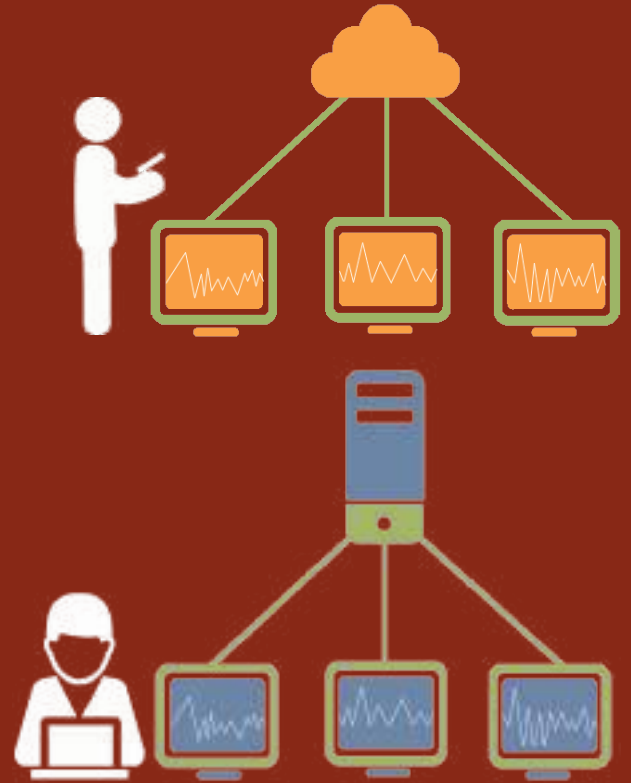
Thermocouple  
Infrared Non Contact Sensor

### General Purpose Input sensor

For proximity sensors or any other device  
2 simultaneous channels  
Orbits capability  
48,000 Hz Sample Rate

# Cloud or Local

## Network Capability with Open SQL Database



## Storage

### The Freedom to Choose:

- » Store data locally  
or
- » Store data on the Cloud  
(Open SQL database)

**IT'S YOUR DATA:** All data can be accessed through any database API for SQL or MySQL.

Experience the **power of DigivibeMX** software with Phantom.



- » Autodiagnostic tools
- » Trending & Octave Bands
- » 3D views and Simulations
- » Automatic reports
- » 3D Waterfall
- » Phase Analysis
- » Envelope Alarms
- » 30,000+ bearings database
- » And MUCH MORE...

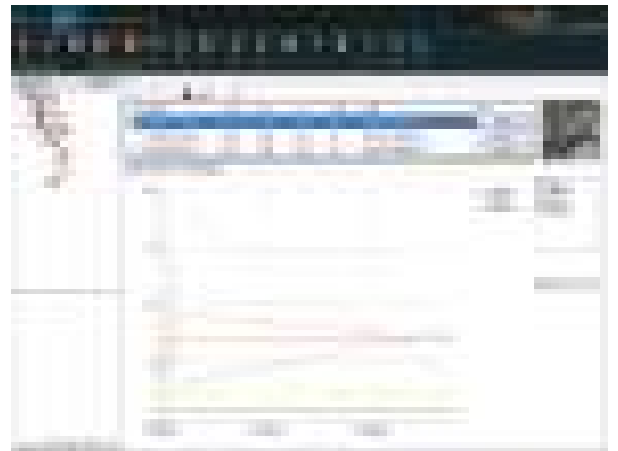


# Mobile SmartAlert™ Technology is here

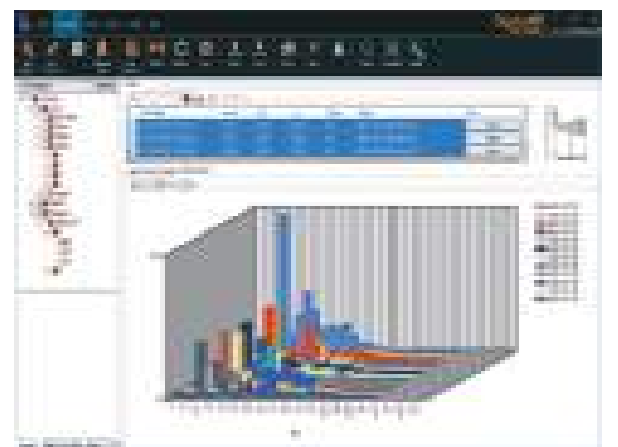
## Trending & Octave Bands

Vibration Trending is a useful function to track the condition of your machines.

Octave bands trending is by far more powerful because it tracks every frequency by dividing the full spectrum into 32 bands and tracks the RMS value of each one of the bands independently helping to identify a change in amplitude easily.



**Trending**  
Software DigivibeMX



**Octave Bands**  
Software DigivibeMX

# 5

## Monitoring Modules

Sensor Type	Triaxial Accelerometer
Sensor Range	8 / 16 / 32 g
Sensor Accuracy	± 3db
Sensor freq. range	10 kHz (x, y) 5.1 kHz (z)
Sampling Rate	25600 Hz

Floor noise V122	XY: 0.12 mg/√Hz Z: 0.2 mg/√Hz
Floor noise V222	XY: 0.63 mg/√Hz Z: 0.9 mg/√Hz

Internal Temperature Accuracy	± 1 °C (± 1.8 °F)
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Operating Temperatures	-40 to 85 °C (-40 a 185°F)
Storage Temperatures	-60 to 105 °C (-76 a 221°F)

Size	47mm x 33 mm (1.85 x 1.3 in)
Weight	100 grams / 3.5 oz

Battery type	3.6 V Li – TL-5935
Battery Life	2 - 4 years
Transmission Type	2.4 GHz BLE 5.0
Distance Range	150m, Line of Sight
Distance w/ Repeaters	Unlimited
IP Rating	IP67



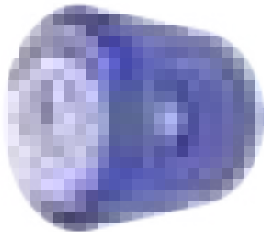
Sensor Type	Tachometer
Switching Speed	Up to 10 KHz
RPM Range	0 – 200,000 RPM
Sensor GAP	1 - 15 mm
Sensor Type	Hall Effect - Omnipolar

Magnet Type	Neodymium
Operating Temperature	-40 to 85 °C (-40 to 185 °F)

Storage Temperature	-60 to 105 °C (-76 to 221 °F)
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Size	47mm x 39 mm (1.85 x 1.53 in)
Weight	100 grams / 3.5 oz
Battery type	3.6 V Li – TL-5935

Battery Life	5-9 years
Transmission Type	2.4 GHz BLE 5.0
Distance Range	150m, Line of Sight
Distance w/ Repeaters	Unlimited
Included	Hall Effect Sensor
IP Rating	IP67



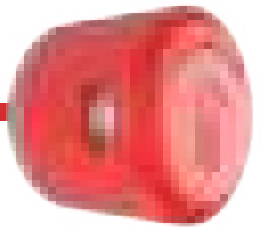
Sensor Type	Temperature (Thermocouple)
Sensor Accuracy	0.15 %
Sensor Range	-210 °C – 1800 °C
Thermocouples Types	K/J/N/R/S/T/E/B
Resolution	0.25 °C (0.45 °F)

Max. Wire Length	25 m.
Operating Temperature	-40 to 85 °C (-40 to 185 °F)

Storage Temperature	-60 to 105 °C (-76 to 221 °F)
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Size	47mm x 39 mm (1.85 x 1.53 in)
Weight	100 grams / 3.5 oz
Battery type	3.6 V Li – TL-5935
Battery Life	5-9 years

Transmission Type	2.4 GHz BLE 5.0
Distance Range	150m, Line of Sight
Distance w/ Repeaters	Unlimited
Included	Type K Thermocouple
IP Rating	IP67



Sensor Type	General Purpose Input
Input Range	± 3 Volts / ± 24 Volts
Amplitude range	24 bits – 108 dB
Channels	2 (simultaneous)
Sampling Rate	44100 Hz

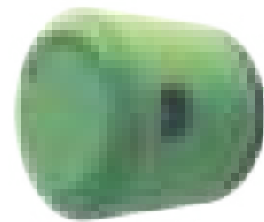
Internal Temperature Accuracy	± 1 °C (± 1.8 °F)
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Operating Temperatures	-40 to 85 °C (-40 to 185 °F)
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Storage Temperatures	-60 to 105 °C (-76 to 221 °F)
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Size	47mm x 39 mm (1.85 x 1.53 in)
Weight	100 grams / 3.5 oz
Battery type	3.6 V Li – TL-5935

Battery Life	2 - 4 years
Transmission Type	2.4 GHz BLE 5.0
Distance Range	150m, Line of Sight
Distance w/ Repeaters	Unlimited
Included	Cable adapter
IP Rating	IP67



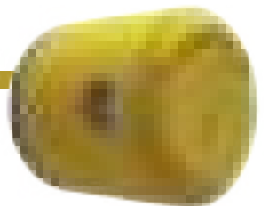
Sensor Type	Current – 3 Phases
Sensor Range	50 / 150 / 500 / 1000 A
Frequency	50 / 60 Hz up to 400 Hz
Sensor Accuracy	± 0.5 / ± 1.5 / ± 1 / ± 1 %

Operating Temperature	-40 to 85 °C (-40 to 185 °F)
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Storage Temperature	-60 to 105 °C (-76 to 221 °F)
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Size	47mm x 39 mm (1.85 x 1.53 in)
Weight	100 grams / 3.5 oz
Battery type	3.6 V Li – TL-5935
Battery Life	5-9 years

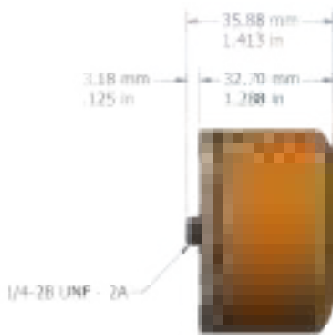
Transmission Type	2.4 GHz BLE 5.0
Distance Range	150m, Line of Sight
Distance w/ Repeaters	Unlimited
Included	Non invasive current sensor
IP Rating	IP67



**Easy** to install  
**Ultra long**  
battery life



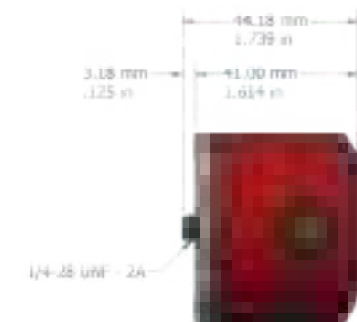
**Small** & intelligent



Ø47.63 mm  
Ø1.875 in

## Module Design

- » IP67 Dust & Water Proof
- » MIL-SPEC 810G Rugged
- » Easy 1/4 28" Thread Installation
- » Automatic reports
- » Network Programmable



Ø47.63 mm  
Ø1.875 in

## Gateway

Wifi, 4G & Ethernet capable, LCD status screen





**Not all wireless is created equal.**

**Never compromise** your data acquisition needs based on poor battery life, low fMax, or high noise floor technology.

**Phantom's BLE** technology guarantees optimal life and system performance.

**No Wires...**  
**No People...**  
**No Hazards...**  
**Less Worries...**  
**Why Wireless?**

**kit** Includes:



Phantom  
(12 pieces)



1 Gateway

# **ERBESSD INSTRUMENTS®**

**WORLDWIDE toll-free:**

**+1-877-223-4606**

**ENGLISH:**

**Sales, Service & Support Engineer**

**+1-518-874-2700**

**info@erbessdreliability.com**

**SPANISH & FRENCH:**

**Sales, Service & Support Engineer**

**+52 (55) 6280-7654 / +52 (999) 469-1603**

**info@erbessd-instruments.com**

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**[www.erbessd-instruments.com](http://www.erbessd-instruments.com)**

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