**ERBESSD INSTRUMENTS®** 

# PHANTOM

# 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

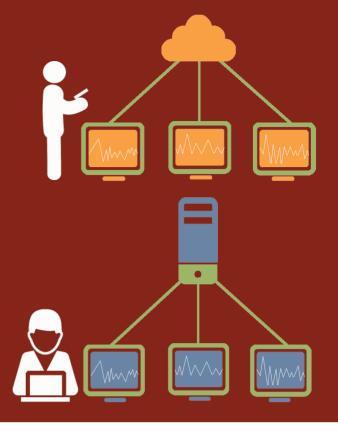
Infrared Non Contact Sensor

### **General Purpose Input sensor**

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

### PHANTOM I SURVEILLANCE SYSTEM

# **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...

PHANTOM I SURVEILLANCE SYSTEM

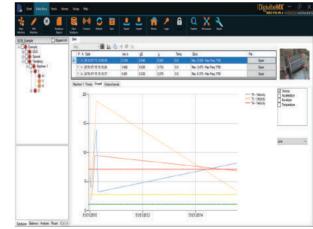
# Mobile SmartAlert™ Technology is here

## **Trending & Octave Bands**

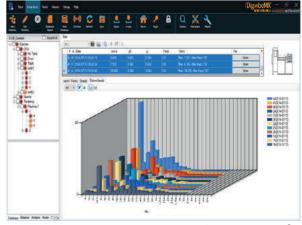
M. 1 M.2 M.3 M.4

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

ERBESS

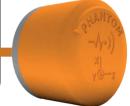
cceleration

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#### PHANTOM I SURVEILLANCE SYSTEM



Sensor Type Sensor Range Sensor Accuracy	Triaxial Accelerometer 8 / 16 / 32 g ± 3db
Sensor freq. range Sampling Rate	10 kHz (x, y) 5.1 kHz (z) 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 Acc	curacy ± 1 °C (± 1.8 °F)
Operating Temperatures Storage Temperatures	-40 to 85 °C(-40 a 185°F) -60 to 105 °C (-76 a 221°F)
Size 47	7mm 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 Transmission Type	2 - 4 years 2.4 GHz BLE 5.0
Distance Range	150m, Line of Sight
°	Unlimited
Distance w/ Repeaters	
IP Rating	IP67



Sensor Type	Tachometer
Switching Speed	Up to10 KHz
RPM Range	0 – 200,000 RPM
Sensor GAP	1 - 15 mm
Sensor Type	Hall Effect - Omnipolar
Magnet Type	Neodymium
<b>Operating Tempera</b>	ature -40 to 85 °C
	(-40 to 185 °F)
Storage Temperati	ure -60 to 105 °C
	(-76 to 221 °F)
Size 4	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/ Repea	ters Unlimited
Included	Hall Effect Sensor

IP67

General Purpose Input

± 3 Volts / ± 24 Volts , 24 bits – 108 dB

2 (simultaneous)

44100 Hz

(± 1.8 °F)

-40 to 85 °C (-40 to 185 °F) -60 to 105 °C

2 - 4 years

Unlimited

IP67

2.4 GHz BLE 5.0

Cable adapter

150m, Line of Sight

Sensor Type Sensor Accuracy Sensor Range Thermocouples T Resolution		ature (Thermocouple) 0.15 % -210 °C – 1800 °C K/J/N/R/S/T/E/B 0.25 °C (0.45 °F)
Max. Wire Length		25 m.
Operating Tempe	rature	-40 to 85 °C
		(-40 to 185 °F)
Storage Tempera <sup>-</sup>	ture	-60 to 105 °C
		(-76 to 221 °F)
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 Typ	e	2.4 GHz BLE 5.0

150m, Line of Sight Distance Range Distance w/ Repeaters Unlimited Type K Thermocouple Included **IP** Rating IP67

Sensor Type Sensor Range Frequency Sensor Accuracy		Current – 3 Phases 50 / 150 / 500 / 1000 A 50 / 60 Hz up to 400 Hz ± 0.5 / ± 1.5 / ± 1 / ± 1 %
Operating Temper	ature	-40 to 85 °C (-40 to 185 °F)
Storage Temperat	ure	-60 to 105 °C (-76 to 221 °F)
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/ Repeate	rs Unlimited
Included	Non invasive current sensor
IP Rating	IP67



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**IP** Rating

Sensor Type

Input Range

Channels Sampling Rate

Amplitude range

Internal Temperature Accuracy

Operating Temperatures

Storage Temperatures



PHANTOM SURVEILLANCE SYSTEM

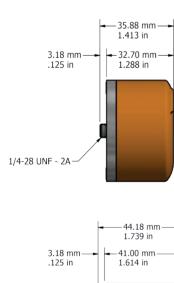
# Easy to install Ultra long battery life

SDINSTRUME

# Small & intelligent

Ø47.63 mm Ø1.875 in

Ø47.63 mm Ø1.875 in



1/4-28 UNF - 2A



# **Module Design**

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



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

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