PHANTOM

Vibration Sensor

PHANTOM, the best wireless condition monitoring system in the world with **the best battery in the market**.

The triaxial vibration sensor is able to send **3 simultaneous** FFT and Time waveform recordings at once.

The signal from the Phantom sensor is encrypted which ensures the reliability of the information and the security of your data.

TECHNICAL SPECIFICATIONS

You can find **Phantom Expert** in two versions
for machines with high and low RPM's.

High Range
(EPH-V11)

Frequency Range:
0.5 Hz - 10 kHz [x,y]
0.5 Hz - 5.1 kHz [z]

Dynamic Range:
±8 / ±16 / ±32 g

Data Receiving Interval:
(Configurable)
Min: 10 min
Max: 1440 min

Sensitivity:
100 mV/G

High Sensitivity
(EPH-V10)

Frequency Range:
0.5 Hz - 4 kHz [x,y]
0.5 Hz - 1.8 kHz [z]

Dynamic Range:
±2 / ±4 / ±8 g

Data Receiving Interval:
(Configurable)
Min: 10 min
Max: 1440 min

Sensitivity:
100 mV/G

HIGH RANGE TECHNICAL SPECIFICATIONS

MEASUREMENT					
Product code	EPH-V11				
Built-in sensor	MEMS Sensor				
Sensitivity (X, Y, Z)	100 mV/g				
Frequency range (@ 25,600)	0.5 Hz to 10 kHz (X,Y), 0.5 Hz to 5.1 kHz (Z)				
Dynamic range (configurable)	±8 /±16 /±32 g				
Recording time (s) 3 axes	1	2	4	8	16
Recording time (s) 1 axes	3	6	12	24	48
Sample rate (Hz)	25,600	12,800	6,400	3,200	1,600
Max frequency (Hz) [x,y]	10,000	5,000	2,500	1,250	625
Max frequency (Hz) [z]	5,100	5,000	2,500	1,250	625
Resolution lines	6,400				
Spectral noise (10 Hz)	630 µg√Hz				
CONNECTIVITY AND SOFTWARE					
Wireless protocol	Bluetooth BLE 5.0				
Operating frequency	2.4 GHz				
Transmission power	±8 dBm				
Signal strength range	-90 dBm to -30 dBm				
Power output range	-4 dBm to +8 dBm (Configurable)				
Device compatibility	iOS and Android devices (WISER VIBE PRO & Phantom™ Manager) and Phantom™ Gateway				
Software compatibility	DigivibeMX 11 M30 & Phantom™ Version / Phantom™ Manager and WiSER VIBE PRO				
Operating distance	100 m line of sight*				
DIMENSIONS AND FIXTURE					
Dimensions (h x w)	48 x 34 mm				
Resistance to shocks	5,000 g				
Protection grade	IP67				
Weight	177 grams				
Fixture	Fastener 1/4-28 UNF				
Housing material	ABS, stainless steel				
ENVIRONMENTAL CONDITIONS					
Operating temperature	-40 to 80 ºC (40 to 176 ºF)				

*In an ideal environment, with no competing signals or obstructions.

HIGH SENSITIVITY TECHNICAL SPECIFICATIONS

MEASUREMENT					
Product code	EPH-V10				
Built-in sensor	MEMS Sensor				
Sensitivity (X, Y, Z)	100 mV/g				
Frequency range (@ 25,600)	0.5 Hz to 4 kHz (X,Y), 0.5 Hz to 1.8 kHz (Z)				
Dynamic range (configurable)	±2 /±4 /±8 g				
Recording time (s) 3 axes	1	2	4	8	16
Recording time (s) 1 axes	3	6	12	24	48
Sample rate (Hz)	25,600	12,800	6,400	3,200	1,600
Max frequency (Hz) [x,y]	4,000	4,000	2,500	1,250	625
Max frequency (Hz) [z]	1,800	1,800	1,800	1,250	625
Resolution lines	6,400				
Spectral noise (10 Hz)	130 µg√Hz				
CONNECTIVITY AND SOFTWARE					
Wireless protocol	Bluetooth BLE 5.0				
Operating frequency	2.4 GHz				
Transmission power	±8 dBm				
Signal strength range	-90 dBm to -30 dBm				
Power output range	-4 dBm to +8 dBm (Configurable)				
Device compatibility	iOS and Android devices (WISER VIBE PRO & Phantom™ Manager) and Phantom™ Gateway				
Software compatibility	DigivibeMX 11 M30 & Phantom™ Version / Phantom™ Manager and WiSER VIBE PRO				
Operating distance	100 m line of sight*				
DIMENSIONS AND FIXTURE					
Dimensions (h x w)	48 x 34 mm				
Resistance to shocks	5,000 g				
Protection grade	IP67				
Weight	177 grams				
Fixture	Fastener 1/4-28 UNF				
Housing material	ABS, stainless steel				
ENVIRONMENTAL CONDITIONS					
Operating temperature	-40 to 80 ºC (40 to 176 ºF)				

*In an ideal enviroment, with no competing signals or obstructions.

BATTERY INFORMATION

POWER SUPPLY	
Battery type	Lithium battery (Li-SoCl2)
Battery life	100,000 measurements (duration depends on user configuration)*
	Standby mode if Gateway not detected
	Consumption of 6-9 µA in Standby mode

DISCHARGE CHARACTERISTICS

At +25°C

Discharge curves labels:
- 165Ω 20mA (1.4Ah)
- 330Ω 10mA (1.50Ah)
- 3.48kΩ 1mA (1.70Ah)
- 14.0kΩ 250±A (1.69Ah)
- 51.0kΩ 70±A (1.68Ah)
- 182kΩ 20±A (1.6Ah)

Voltage (V) vs Discharge Time (h)

VOLTAGE VS. TEMPERATURE

Curves labeled: 20µA, 0.1mA, 1mA, 3mA

Voltage (V) vs Temperature(°C)
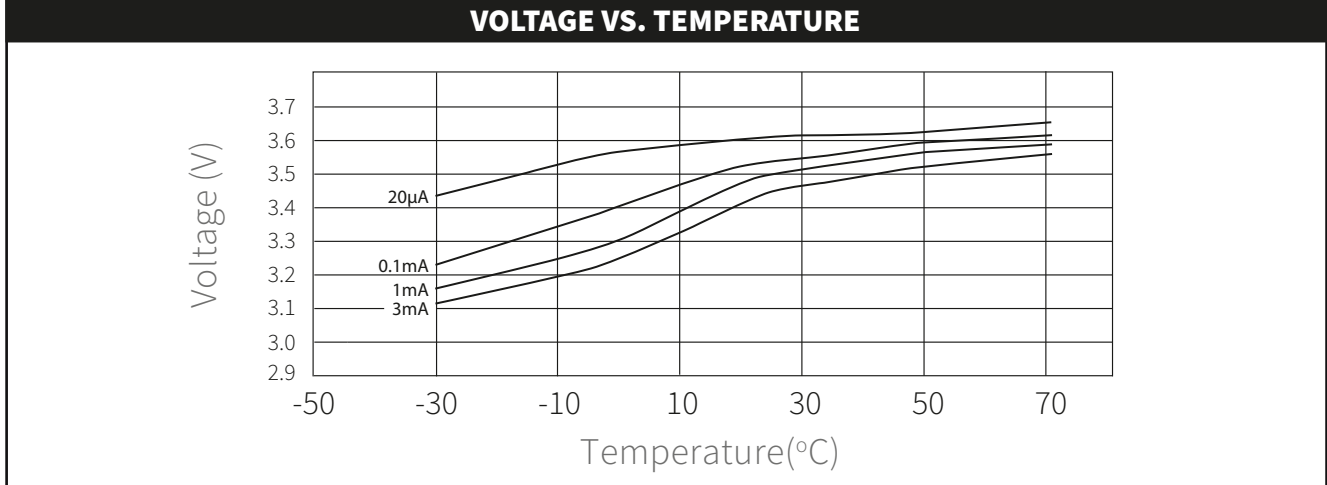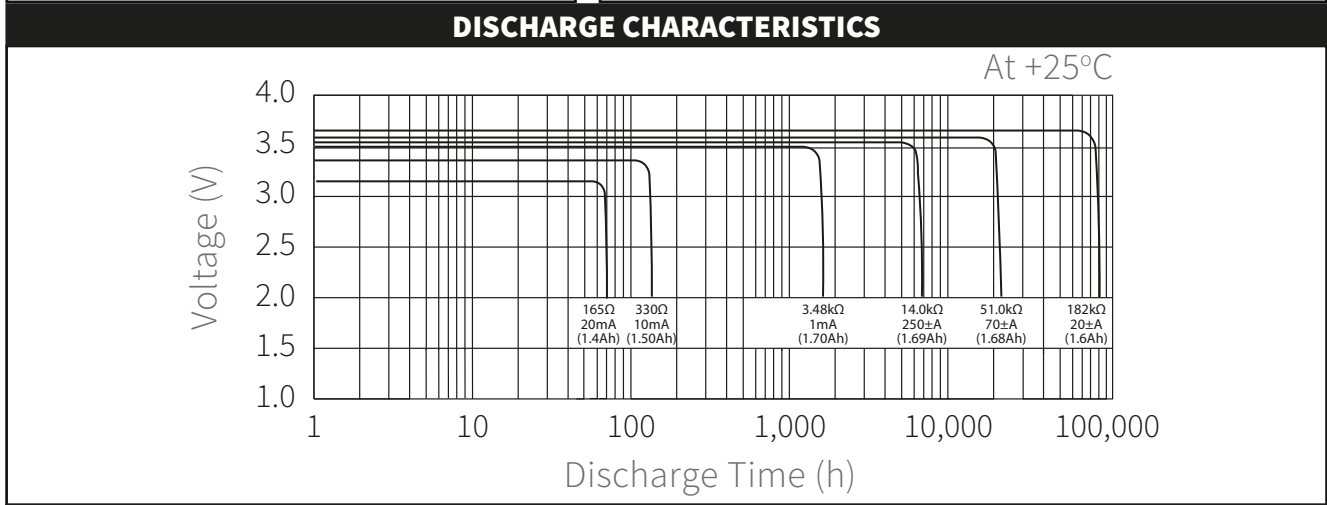
*Battery life is directly affected by temperature, frequency of alarms, and other factors independent of user settings.

DIMENSIONS

47.63 mm

1/4-28 UNF - 2B   .165

27.94 mm

19.11 mm

40.64 mm

8.00 mm
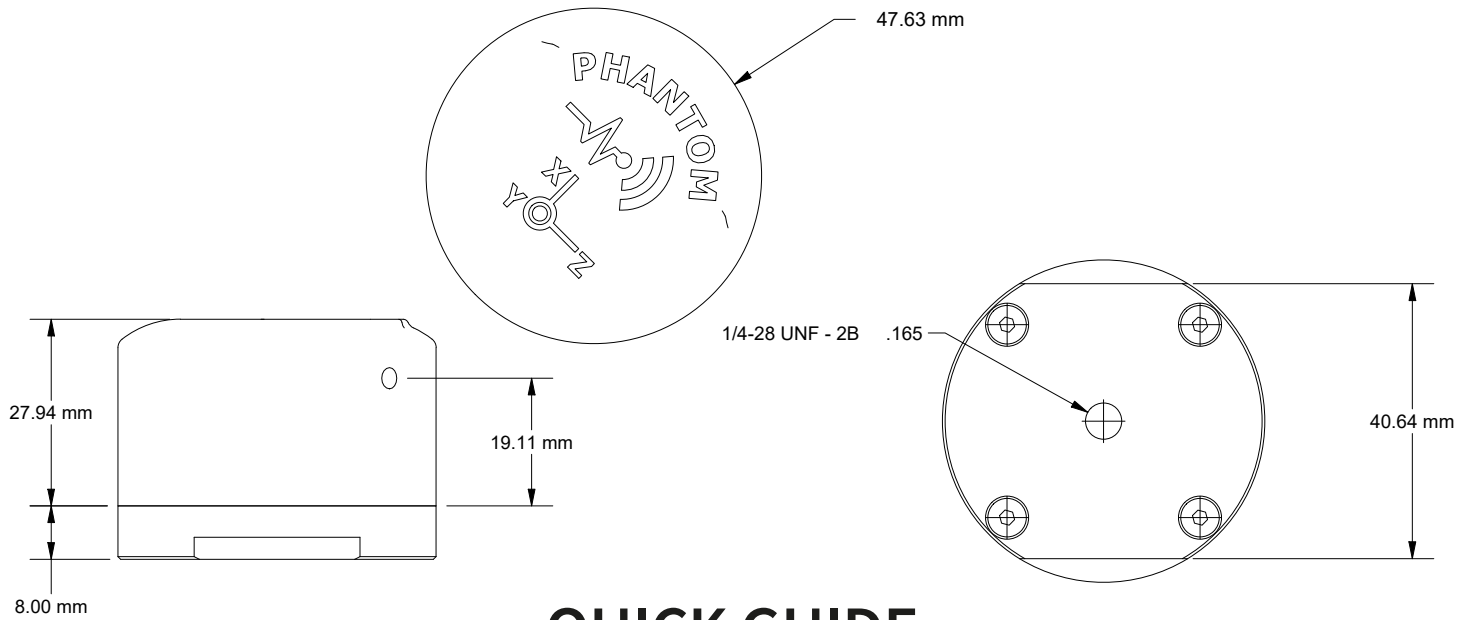
QUICK GUIDE
Place your sensor the right way

Use the symbol on the top of the Phantom to locate the axis in the right position.

X

Y   Z

Once you've placed the sensor on your machine, set it up on DigivibeMX and define each axis to an orientation: Horizontal, Vertical and Axial.

ACCESSORIES

The Phantom vibration sensor has everything you need to start collecting data without the need for additional accessories.

Add it to your measurement point thruogh DigivibeMX and you are ready to monitor your machines.

It's smart design allows you to place it anywhere you want using the right tools.

Wherever you choose to place the sensor, we have the mounting perfect for the job.
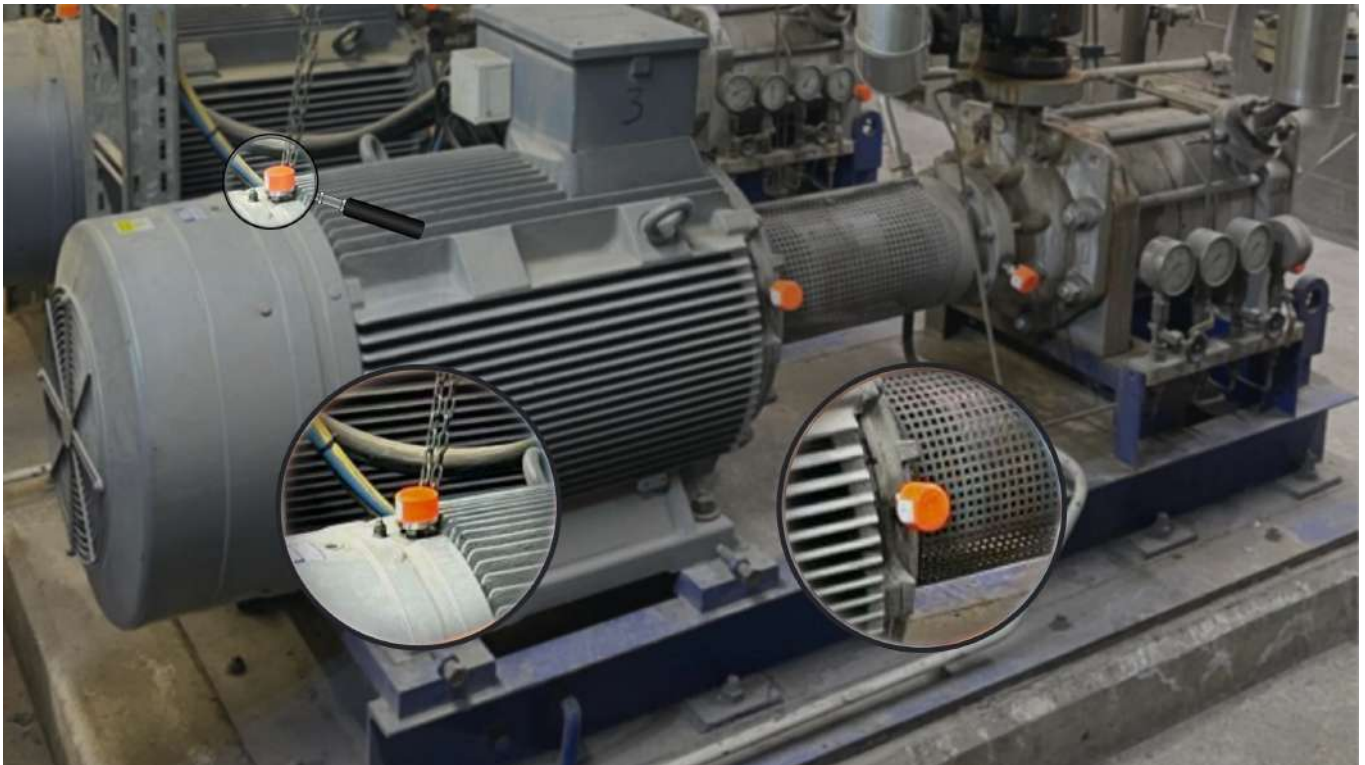
Analyze and visualize the data from your sensors using our desktop software

DigivibeMX®

Access to your information easly through your browser or DigivibeMX 11 software.

Phantom sensors are compatible with communication protocol

Modbus

MEET THE PHANTOM FAMILY

Phantom RPM

With the RPM sensor you can easily analyze the revolutions per minute of any rotor, turbine or vent with incredible precision with a switching speed of 600kRPM.

Phantom Thermocouple & Phantom Infrared

Ensure better control of your machines' temperature. You can connect up to 3 thermocouple sensors or choose the **infrared** temperature sensor so you can monitor with extreme precision.

Phantom Current

The Phantom current module allows you to measure up to 4 amperage channels with clamps that start with 50 amp and go to 500 amp.

Phantom GP

General Purpose modules that are compatibe with any kind of sensor to obtain wireless data. Available for **4-20mA**, **0-10V**, **Digital Signals** and **2.2Vpp** sensors.

Phantom All in One

Secure the reliability of three sensors in one Phantom module: vibration, temperature and current. Complete condition monitoring all in one.

Phantom Thermographic Camera

With the Phantom thermal camera you can take infrared images of surfaces or objects at a distance of up to 1m. Use DigivibeMX to create trends at different points of these captures.

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
info@erbessd-instruments.com

BUY ONLINE
www.erbessd-instruments.com