PHANTOM

Vibration, Current and Temperature Sensor

PHANTOM, the best wireless continuous monitoring system worldwide.

With **All in One** sensor you can measure up to **3 phases** of amperage and **2 channels** of temperature while recording **triaxial vibration**.

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

TECHNICAL SPECIFICATIONS

You can find **Phantom All in One** in it's **High Sensitivity** version (EPH-U13) or in it's **High Range** version (EPH-U14).

MEASUREMENT — HIGH RANGE VIBRATION

Part Number:
EPH-U14

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

Sensor:
MEMS triaxial accelerometer

Spectral Noise:
630 µg/√Hz

Dynamic Range:
±8/ ±16/±32 g

Resolution Lines:
6400

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

Recording Time (s):	1	2	4	8	16
Sample Rate (Hz):	25600	12800	6400	3200	1600
Max Frequency (Hz) [x,y]:	10000	5000	2500	1250	625
Max Frequency (Hz) [z]:	5100	5000	2500	1250	625

MEASUREMENT — HIGH SENSITIVITY VIBRATION

Part Number:
EPH-U13

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

Sensor:
MEMS triaxial accelerometer

Spectral Noise:
130 µg/√Hz

Dynamic Range:
±2/±4/±8 g

Resolution Lines:
6400

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

Recording Time (s):	1	2	4	8	16
Sample Rate (Hz):	25600	12800	6400	3200	1600
Max Frequency (Hz) [x,y]:	4000	4000	2500	1250	625
Max Frequency (Hz) [z]:	1800	1800	1800	1250	625

MEASUREMENT — CURRENT

Clamps:
50 / 100 / 250 / 500 Amp

Frequency Range
50-60 Hz

Accuracy:
±5 %

Data Receiving Interval:
(Configurable)
Min: 1 min - Max: 120 min

Sensor:
Split core current
transformer sensor

Input:
3 Clamps for 3 phases
measurement

Measurement:
Minimum / Maximum /
Average / Amp Hour

**Internal Temperature
Accuracy:**
±5 °C

MEASUREMENT — TEMPERATURE

**Temperature range
(ambient):**
-40 °C to 80 °C
-40 °F to 176 °F

**Internal Temperature
Accuracy:**
±5 °C

Status:
Battery and temperature

Sensor:
Thermocouple type K

Data Receiving Interval:
(Configurable)
Min: 1 min - Max: 120 min

**Temperature Range
(object):**
-100 °C to 1250 °C
-212 °F to 2282 °F

ACCESSORIES

Each sensor has the ability to connect **3 clamps*** and **2 thermocouples***. You can use clamps of **50A**, **100A**, **250A** and **500A** and **type K** thermocouples.

*Sold separately

POWER SUPPLY

Battery Lifetime:
12,000 measurements
Standby Mode if Gateway not detected

Main Power Supply:
2 AAA 1.5 V Batteries (Replaceable)

CONNECTIVITY AND SOFTWARE

Wireless Protocol:
Bluetooth BLE 5.0 /
Modbus via Gateway

Signal Strenght Range:
-90 dBm to -30 dBm

Power Output Range:
-4 dBm a +8 dBm
(Configurable)

Contains FCC ID:
X8WBT840

Wireless Range:
100 m line sight

Operating Frequency:
2.4 GHz

DIMENSIONS

Dimensions:
100 mm x 77 mm x 26 mm

Weight:
138 gr

Base Temperature Range:
-40 °C to +80 °C
(-40 °F to +176 °F)

Material:
Nylamid / Aluminum

Protection Rating:
Water and dust resistant (IP67)

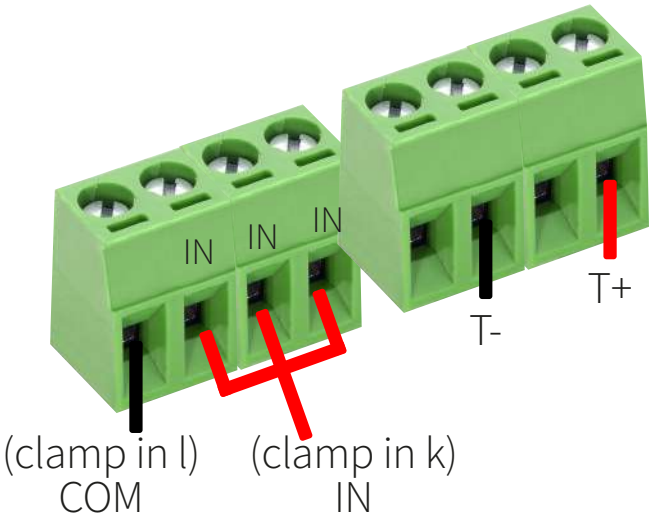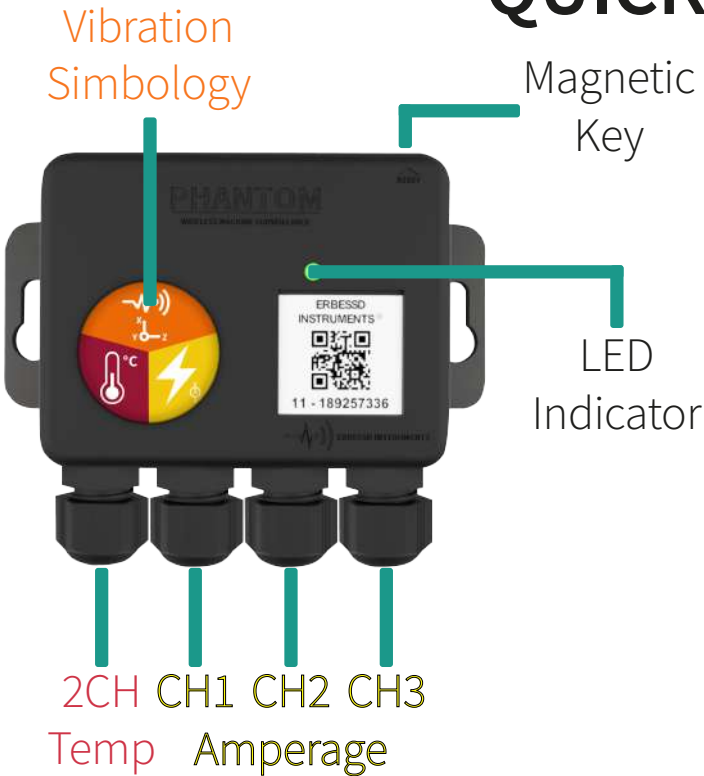Analize and visualize the health of your machines with **DigivibeMX®**

Easily access your data worldwide with EI Analytic and WiSER VIBE PRO.

EI ANALYTIC

CERTIFICATIONS

CE

RoHS COMPLIANT

REACH COMPLIANCE

QUICK GUIDE

Vibration Simbology

Magnetic Key

Battery Compartment (2xAAA)

LED Indicator

2CH Temp

CH1 CH2 CH3 Amperage

CONNECTION DIAGRAM

IN   IN   IN

T+

T-

(clamp in l) COM

(clamp in k) IN

Amperage		Temperature	
COM	IN	T-	T+
Black cable	Red cable	Black cable	Red cable

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 Termocouple & Phantom Infrared

Have a better control of your machines' temperature. You can connect up to 3 thermocouple sensors or acquire 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 Expert & Phantom Gen 2

High Range triaxial vibration sensor. It is able to send 3 simultaneous FFT and time waveform recordings at once. Available in **High Sensitivity**, **Biaxial** and **ATEX**.

Phantom Thermographic Camera

With the Phantom thermal camera you can take infrared images of surfaces or objects at a distance of no more than 1m. Use DigivibeMX to create trends at different points of these captures.

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