

SWARM Vibration Monitor



Honeycomb Web Platform



The Omnidots SWARM obtains high quality vibration measurements and transmits them wirelessly to the Honeycomb web platform.

- Installs with one screw and self-levels, allowing installation on walls, ceilings, floors, and any other position.
- Connects automatically to Honeycomb web platform. Power it up and start monitoring.
- Runs six weeks on external battery, also works with solar panel or AC.
- Transmits measurements offsite via cellular or WiFi connections, eliminating site visits to retrieve data.
- Complies with ISEE standards (USBM R18507 & OSMRE) and all international standards.
- Operates in temperatures from 14 to 158 °F and rated IP65.

SWARM Specifications

Sensor Types: MEMS for X, Y, Z directions

Frequency Range: 0.5 - 250 Hz

Velocity Range: ± 12 in/s (± 300.0 mm/s)

Acceleration Range: ± 40 g

Measurements: PPV, PPA, PVS, VDV, Veff(max), Vper, KBFmax, KBFTm, Velocity traces

Noise (RMS): 25 μ m/s at 250 Hz BW (1 mil/s)

Resolution: 0.5 μ m/s (0.02 mil/s)

Dominant frequency determination: FFT

Logging Interval: 2 - 6000 seconds

Alarm Trigger PPV: 0.004 - 12 in/s (0.1 - 300mm/s)

GPS: Built in GPS receiver, 33 ft / 10m CEP accuracy

Power: Requires external battery, AC adaptor, or Solar + battery

The Omnidots Honeycomb web platform receives, processes, and stores SWARM measurements, then generates graphs, reports, and alerts.

- Provides two-way communications, allowing remote configuration of SWARM monitors as well as receiving measurements.
- Presents data 24/7 wherever there is an internet connection.
- Plots velocity-time, velocity-frequency, acceleration/time, Veff,max/time, VDV/time, traces.
- Sends out email and SMS alerts of exceedances.
- Generates daily or weekly automatic reports, and exports PDF, CSV and Excel overviews
- Annual and monthly subscription rates.

Honeycomb Specifications

Graphs: Velocity-time, Velocity-frequency, Acceleration/time, Veff,max/time, VDV/time, traces

Displays & Exports: PPV, PPA, PVS, VDV, Veff(max), Vper, KBFmax, KBFTm, Velocity traces, FFT

Velocity: Peak particle velocity

Acceleration: Peak Particle Acceleration

Frequency: Dominant frequency

Traces: 1000 samples per second, unlimited number

Data storage: Secure data center

Data export: PDF, CSV, Excel

Alarm level curves: ISEE (USBM R18507 & OSMRE), SBR curve, DIN curve, Circulaire ,86, SN 640 312a, Straight line

Alarm notifications: E-mail, SMS, personal dashboard



SWARM Battery

The 104 Ah lithium-ion, SWARM battery can power the SWARM for about six weeks. It provides optimum power at 14° to 149° F (-10° to 65° C) and has an IP65 weather rating.



Solar Panel

The Solar panel is designed to work with the SWARM battery, keeping it charged for long-duration projects.



Battery Charger

The SWARM battery can also be charged with the AC battery charger. Compatible with both 110/120 and 220/240 V AC mains, it can recharge the SWARM battery within 20 hours.



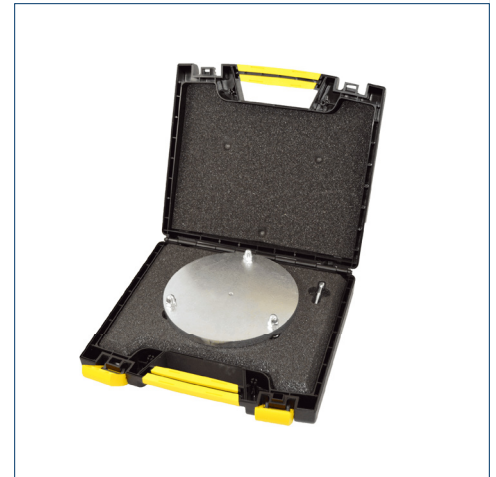
Carrying Case

The carrying case has room for the SWARM, the SWARM battery, the battery charger, and cables.



Power over Ethernet Adaptor

The PoE adaptor provides an additional source of power for the SWARM.



Base Plate

The SWARM can be mounted on this base plate when drill holes are not allowed. It has spikes for carpet and rounded legs for wood floors.