



DATA SHEET

Before you read on if you don't see your exact requirements here please see our custom build factsheet or contact us directly

Managing and monitoring the levels of vibration on a construction site has never been easier with the event based NanoULTRA - Vibe. It has been carefully designed to be robust for use in harsh environments such as construction sites, yet simple to use and sensitive enough to capture ongoing vibration events. The NanoULTRA - Vibe offers wireless mobile connectivity, long battery life (usually 1 - 2 months), trigger alarming (email and SMS), and constant access to data to our secure cloud platform, the CDLSmartHub™, where the raw data can be turned into actionable insights.

From the CDLSmartHub™ you can configure and manage your units, set alarms, view audit trails, integrate and export data, view trends and visualise data. Investing in the NanoULTRA - Edge and CDLSmartHub™, gives you access to a fully integrated end-to-end IoT solution to effectively manage your assets.

Here at CDL we understand the requirements of being on a construction site. The NanoULTRA -Vibe continuously monitors at high speed and records vibration events over pre-set thresholds set by the user on the CDLSmartHub™ in line with requirements. If you are unsure if this meets your onsite needs, please give one of our IIoT Solution specialists for more information.

KEY FEATURES

- Vibration event capture
- Heart beat logins to the CDLSmarthub
- Receive SMS and email alarms when vibration limits are exceeded
- Add users and alarm recipients via a secure web browser.
- Input for up to two tri-axial geophone sensors
- Average battery life 1-2 months
- Remote monitoring reducing on-site requirements
- Minimum trigger level: 0.18mm/s
- Maximum sensor level: 43.4mm/s
- Geophone low frequency response: 4.5 Hz
- Operating temperature: -5 to + 60 C
- Quad band Modem
- Roaming SIM Card
- PPV reporting



Cloud based IoT platform



Vibration Event Capture



Long battery life



Email and SMS Alerts

APPLICATIONS

- Construction site application
- Geographical vibration measurements
- Ground vibration detection
- Piling Installation
- Building stability
- Demolition impact

Physical

IP66 die cast aluminium
178 x 156 x 74
IP66 rated enclosure

Power Supply

Battery powered by 2 x D cell 3.6 V as standard
Mains powered AC 240V to 12VDC power supply or 8-18V DC

Indicative Battery Supply

Dependent on sample rate, temperature and range
Battery longevity of up to 4 months available

Standard On-board Inputs

Geophone input options: 1 or 2 , 3 axis
Natural
Frequency sensitivity range:
4.5 Hz, 8 Hz, 10Hz, 14 Hz
Geophone on standard 3m cable

Communication Protocols

RS485
Support for up to 4x Modbus slaves (new Modbus maps configured at additional cost)
Once set up on the CDLSmartHub™ unlimited Modbus register maps can be recalled via the CDLSmartHub™

Modem

2G, Quad-Band GSM
(850/900/1800/1900 MHz) connectivity with GPRS class 12 support

Antenna and Connector

Puck mount on aluminum case fitted as standard

LEDs and Button

Internal on/off switch
LED'S for modem activity and triggered status
Reporting toggle switch

Environmental

-10 to +75 °C (operational)
-20 to +85 °C (storage)

Approvals

CE

NanoULTRA - Vibe Configuration and Management

The NanoULTRA - Vibe transfers data to the CDLSmartHub™ as soon as the unit is powered up
All configuration is performed via CDLSmartHub™ to the NanoULTRA - Vibe

Options include (s, seconds, m, minutes, h, hour)
5s, 10s, 15s, 30s, 1m, 2m, 5m, 10m, 15m, 30m, 1h,
2h, 3h, 6h, 12h or 24h.
Report rate set via web Bureau, Options (m, minutes, h, hours) 1m, 2m, 5m, 10m, 15m, 30m, 1h, 2h, 3h, 6h, 12h, 24h, 48h or 1 week.
Fast Sample frequency options (Hz) 10, 25, 50, 75, 100, 150, 200, 250, 300, 350, 400, 450, 500.
On board non-volatile memory to store sensor data if power or GSM signal is lost.

CDLSmartHub™

For live examples of the CDLSmartHub™ please visit:
<https://www.captiondata.com/products/cdlsmarthub/>

Web based configuration of remote NanoULTRA - Vibe

- User management
- Alarm management and audit trails
- Trending of data

Starter Kit – Battery Unit

NUV-BAT = NanoULTRA -Vibe Battery
NUV-GEO = vibration Geophone sensor
NUV-CSH = CDLSmartHub™ 12 month

Starter Kit – Mains power Unit

NUV-PSU = NanoULTRA - Vibe PSU
NUV-GEO = vibration Geophone sensor
NUV-CSH = CDLSmartHub™ 12 month

Contact Info

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