Turnkey Instruments Ltd

Tel: +44 (0)1606 330020 www.turnkey.tel



iVIBE

Internet Vibration & Noise Monitor

The Turnkey® internet **iVIBE** provides remote on-site multichannel monitoring of noise and vibration with data logging and automatic alarms via email, text messaging, or a visual traffic light system. Alarm types and thresholds for vibration and noise are configured by the user and their thresholds can be set to depend on the time of day.

iVIBE connects to Turnkey's AirQWeb cloud server. This allows integrated monitoring and control of noise, vibration, dust, meteorology, and air quality on your site. Live and historic PPV, Leq, L10, L90 and other readings are available to view on your PC, smart-phone or tablet, anywhere, anytime. The reporting interval can be as fast as every minute.

All data are safe and secure with multiple backup servers.

To portray the **iVIBE's** readings, Turnkey® can also provide 3D site mapping with 3D imagery, live readings and site placements shown on Google® Earth. Again available on your PC or mobile device.

iVIBE has an internal NiMH rechargeable battery that allows continued operation and recording for up to 48 hours in the event of a site power outage. Measurements taken during power outages are automatically uploaded to AirQWeb when site power returns.

As standard, **iVIBE** is fitted with a MEMS tri-axial accelerometer which also provides static tilt measurements. For increased sensitivity to very small vibrations, **iVIBE** can be fitted with a tri-axial seismic accelerometer too. The noise floor with the seismic accelerometer is less than 20 micro-g

1-2 Dalby Court, Gadbrook Business Centre, Northwich, Cheshire. CW9 7TN
Tel: +44 (0)1606 330020 Fax: +44 (0)1606 331526 Website: www.turnkey.tel

RMS, equivalent to a PPV of less than 0.01 mm/sec at 4 Hz. The noise floor with the MEMS accelerometer is about 1 milli-g RMS, equivalent to a PPV of less than 0.5mm/sec at 4 Hz.

Maximum PPV (Peak Particle Velocity) is more than 100 mm/sec with a resolution of 0.01 mm/sec. The dominant frequency for each axis and the vector resultant is also calculated.

Each tri-axial output of the accelerometers is measured 1000 times per second, and the user may set the low frequency cutoff (-3dB) to 0.2 Hz, 0.5 Hz, 1 Hz, 2 Hz or 4 Hz respectively.

iVIBE's sound processing circuits are designed to give Class 1 performance over a 95dB dynamic range, so 30dB to 120dB SPL is covered in a single range. Uniquely, **iVIBE** measures both dB(A) and dB(C) frequency weightings simultaneously, with F or S time weightings. As well as Leq over the reporting interval, **iVIBE** also reports statistical values such as L10, L90 and Lmax in both dB(A) and dB(C) simultaneously. Other statistical sound indicators over arbitrary periods can be calculated within AirQWeb from the uploaded readings.

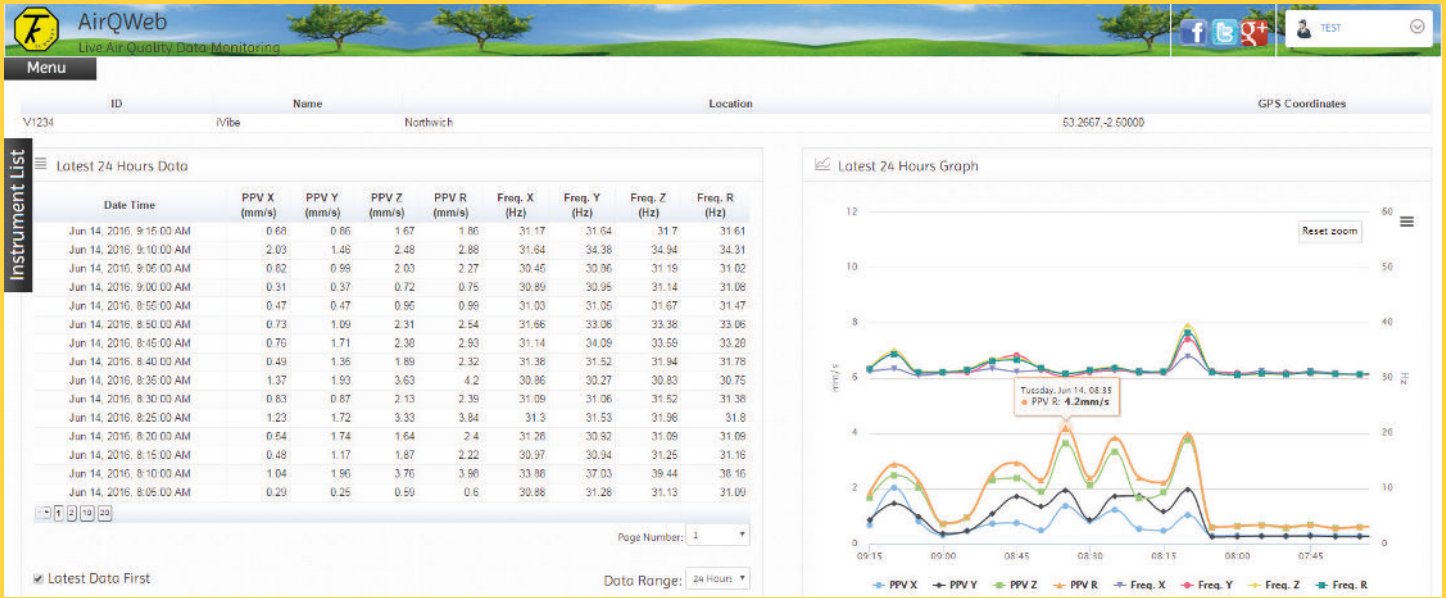
iVIBE can be provided with either a Class 1 (supplied with frequency response curve) or Class 2 microphone.

Unlike some other providers, access to Turnkey's AirQWeb is free and unlimited and, provided the instrument is in the Statutory Calibration Scheme (SCS), you also get free and unlimited technical support from the team of people who designed the instrument and software. Turnkey designs its own instruments and writes its own software, so we are able to give you the very best technical support.

iVIBE is supplied complete with a Turnkey Power Portal. This integrates a universal input mains power supply, Turnkey WS3 web server, and 3G/4G access-point into a wall mountable, waterproof, IP68 enclosure. The Power Portal and **iVIBE** are supplied in a Peli-case for easy storage and transportation. The **iVIBE** itself is sealed to IP65.

Product design and development at Turnkey Instruments Ltd is continuous and we reserve the right to make changes to the design and specification of this and other products without prior notice.

Turnkey® and Google® are WTO registered trademarks



1-2 Dalby Court, Gadbrook Business Centre, Northwich, Cheshire. CW9 7TN
Tel: +44 (0)1606 330020 Fax: +44 (0)1606 331526 Website: www.turnkey.tel