

COMPLETE WIRELESS VIBRATION MONITOR FOR THE INFRA SYSTEM

INFRA C22

Wireless Triaxial Vibration Monitor

The INFRA system is used to monitor construction activities, blasting, train traffic, road traffic, vibration in buildings etc.

- All-in-one datalogger and vibration sensor
- Up to 4 month of continuous monitoring on internal rechargeable batteries
- Built-in 3G modem with 2G fallback
- Micro-SD memory card
- Simultaneous bar graph and waveform registration
- Watertight (IP67)
- OLED color display
- Digital signal processing
- Post-processing, presentation and remote management in INFRA Net
- Multi button keypad
- Wireless



INFRA C22 measures according to the following national and international standards:

DIN 4150-3 Anlage	1 – 315 Hz	SN 640 312a	5 – 150 Hz
ISEE Seismograph	2 – 250 Hz	Acceleration	5 – 300 Hz
AS 2187.2-2006	2 – 250 Hz	SS 4604866 Spräng	5 – 300 Hz
Arrêté	1 – 150 Hz	SS 025211 Schakt	5 – 150 Hz
ICPE	1 – 150 Hz	SS 025211 Schakt	2 – 150 Hz
IN 1226	1 – 150 Hz	NS 8141:2013 Byggverk	3 – 400 Hz
SBR-A	1 – 100 Hz	NS 8141:2001 Byggverk	5 – 300 Hz
SBR-B, RMS 125 ms	20 mm/s 1 – 80 Hz	NS 8176 Komfort, RMS 1s	20 mm/s 1 – 80 Hz
Toronto bylaw 514	1 – 100 Hz	SS 4604861 Komfort, RMS 1s	20 mm/s 1 – 80 Hz
Toronto bylaw 514	2 – 250 Hz	SS 4604861 Komfort, RMS 1s	700 mm/s ² 1 – 80 Hz
Turkey Mining and Quarry	2 – 250 Hz	OfM 9/1997 dB	55-117 dB 1 – 80 Hz
BS 7385	1 – 300 Hz		



Technical Data

DIRECTION OF SENSITIVITY

C22 measures triaxial vibration.

MEASURING

The unit has built in digital signal processing, which processes all incoming data in real time according to the selected standard. The unit measures maximum values for each interval and at the same time, it records time history data when the vibration level exceeds the user preset threshold.

SAMPLING

The geophone signals are sampled at 4096 Hz using a high resolution A/D converter for a wide dynamic range. When a preset trigger level is exceeded a time history is recorded.

RECORDING

Recording time is up to 40 seconds, with 1 second pre-trig.

POWER SUPPLY

Internal Lithium-Ion batteries that easily can be changed.

MEASURING RANGE

Frequency range 1 Hz - 500 Hz. The Geophones have a calibrated sensitivity within $\pm 2\%$. Maximum vibration level is 250 mm/s (10 in/sec) dependent on the selected standard.

SENSOR ELEMENT

The sensor elements are rugged high quality velocity sensing geophones with long term stability and wide dynamic range.

IDENTITY

The serial number of the unit and important metadata always follows the recorded data. This makes it possible to trace data to a certain unit.

MEMORY

Micro SD industrial memory card. 1 GB in standard configuration.

DATA TRANSFER

All data is buffered on the memory card and is sent when the next cellular communication takes place. If cellular communication is not possible, data is kept for transfer at a later time.

DATA AND SERVICE MESSAGES

Data and service messages are sent via INFRA Net for maximal flexibility.

CALIBRATION

The unit has an internal memory for identity, calibration factors, calibration date etc.

USER INTERFACE

With a keyboard and display settings can be changed. The display also shows battery status, signal strength, and the latest events.

REMOTE OPERATION

Settings can be changed remotely using INFRA Net.

MECHANICAL & ENVIRONMENTAL

Watertight aluminum house with rubber seals. It has holes for bolts passing through in both horizontal and vertical direction.

Material: Powder coated aluminum house and polycarbonate antenna cover.

Dimension: 146 x 127 x 89 mm (5.8 x 5.0 x 3.5 in)
(Including antenna cover, excluding connector and standoffs.)

Protection class: IP67

Weight: 1820 grams (4.0 lbs) incl 2 batteries

Operating temperature: -20 to $+50$ °C (-4 to 122 °F)

CE APPROVAL

EMC: 2014/30/EU

LVD: 2014/35/EU

RoHS: 2011/65/EU (2015/863)

