

DYNAMIC EVENT MONITORING SYSTEM

The ultimate multifunctional datalogger/ measurement system in civil engineering applications.

The ultimate measurement system from APT Instruments: modular design, rugged packaging and 100% Belgian quality provide reliable performance in civil engineering environments.

APPLICATIONS

Vibrations, noise, stresses, displacement monitoring and recording.

EXAMPLES

- Site evaluation and seismic re-qualification (buildings, bridges, towers, etc.);
- Construction monitoring (pile driving, compaction, etc.);
- Traffic induced noise and vibration measurement (railway, highway & subway);
- Sensitive equipment and industrial vibrations measurement;
- Long-term monitoring of buildings & installations;
- Monitoring of blasting (tunnels, demolition, quarrying & mining);
- And many more.

SYSTEM

The ATP monitoring system is a compact, modular data recorder, designed for diverse civil engineering applications.

It consists of a powerful computer/ controller that controls all the parts of the measurement system:

- the data acquisition module;
- the error verification module;
- the mobile phone SMS alerting module;
- the on-site alerting module;
- the energizing module.

It is an open system that can combine many custom selectable options:

- SMS alerting;
- different type and number of sensors, signals, frequency ranges;
- wireless or fixed internet connection for data verification, download, setup;
- fixed AC/DC power or solar cell powering for long term autonomy.

Dynamic measurements and monitoring tasks are carried out economically.

The measurement data can be visualized on the fly on your desktop PC while the system is installed at the other side of the world.

For long-term vibration monitoring, its multi mode operation is an important asset: triggered events are recorded as time histories while at the same time the signal level for the entire monitoring time is recorded as peak values for each user selectable interval (= background mode).

The included software provides comprehensive analysis and professional presentation of data. It leaves the user a wide selection of analysis criteria according to the most frequent norms and regulations: DIN 4150/2/3, ISO 2631, APTA.

Analyses according to these norms and regulations can be applied on the fly during the measurement, so that trigger levels can be determined in function these applied norm.

Even an unlimited combination of trigger levels, norms and channels is possible.

For example:

Simultaneous vibration monitoring on a foundation of an industrial building (DIN4150/3) and in the middle of the sleeping room inside and apartment (DIN 4150/3 and/or ISO 2631) can be done while taken into account their specific trigger limits.

Contact

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SPECIFICATIONS

- Number of channels: 4 up to 32 in block of 4 channels
- Type of sensors: standard accelerometer/microphones with ICP power supply, strain gauges, ...
- Sample frequency: DC – 200 Hz up to DC – 20 kHz
- Mass storage: unlimited (depending on the selected hard disk space)
- Dynamic range: 24 bit AD conversion with automatic anti-aliasing filtering

