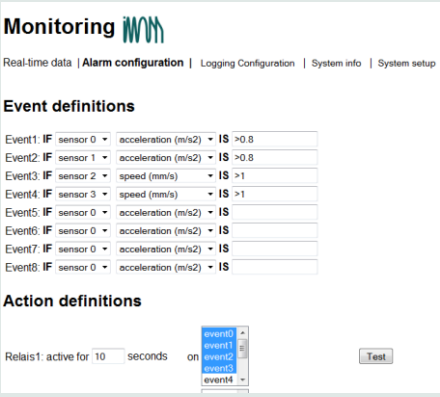
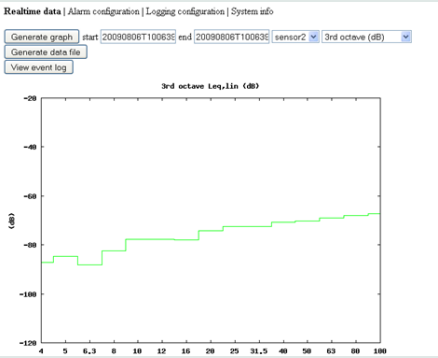
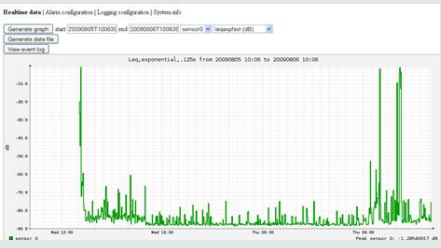
# OMS
# ONLINE MONITORING SYSTEM



## GENERAL

The Online Monitoring System (OMS) is designed for the acquisition, real time processing, transmission and storage of a variety of measurement signals. The advantages of this multifunctional data logger are:

- High available processing power for real-time calculations.
- No software installation required as real time and historical results can be viewed on any PC or PDA with a standard internet connection.
- Easy configuration of the data processing and alarm actions (siren, SMS, email, flashlight) via the web based interface.
- High flexibility with respect to the number and type of measurements and processing algorithms.

The electronics are of robust design and can deal with severe environments (vibration, temperature, power interruptions).

## APPLICATION DOMAIN

Monitoring and recording for:

- Site evaluation and seismic re-qualification (buildings, bridges, towers, …).
- Construction (pile driving, compactions, tunnel boring, excavation, …).
- Traffic induced noise and vibrations (railway, highway, subway, …).
- Meteorological conditions.
- Air quality.
- …

## EASY CONFIGURATION

- Web-based configuration (configure from any PC, no software installation).
- Easy configuration of alarm events and actions.

## RESULTS ANALYSIS

- Real-time data analysis.
- Time or spectrum graphs.
- Raw data download for off-line analysis.

## SYSTEM HARDWARE

- Industrial computer with mobile communication device.
- Data acquisition module.
- Power supply and battery module.

**i-moss NV**
Corbielaan 5
3060 Bertem
Belgium

VAT BE 0824 918 484
RPR Leuven
www.i-moss.com
info@i-moss.com

## SPECIFICATIONS

| | |
|---|---|
| Sensor connections | 4x 24bit AD converter with ICP power |
| Sampling frequency | DC up to 50 kHz |
| Storage | – 512 MB Compact Flash<br>– 80 GB hard drive (optional) |
| Software | Web-based configuration (Internet Explorer, Firefox, …) |
| Power supply | 230 VAC |
| Environment | -20 °C to +55 °C |

### *Processing*

| | |
|---|---|
| Analysis algorithms (standard vibration) | – Vibration acceleration (RMS)<br>– Vibration speed (RMS)<br>– $L_{eq,\ linear}$, $L_{eq,\ exponential\ fast/slow}$<br>– $L_{eq,\ Wm}$ according to ISO2631<br>– $L_{eq}$ in 3rd octave bands |
| Customized analysis algorithms (optional) | – Customer supplied algorithm<br>– Development of new algorithm |
| Alarm action (user configurable) | – SMS<br>– Email<br>– Siren (optional)<br>– Customized Alarm Action (optional) |

### *System interfaces*

| | |
|---|---|
| Sensor inputs | 4x BNC 24bit DA 2 kHz sampling with ICP power |
| Logical inputs | 5x optoisolated 3-28V |
| Logical outputs | 6x voltage free contacts (4x NO, 2x NC) max 30W, 220V |
| Wired communication (standard) | – 1x RS232/422/485<br>– 1x USB 2.0<br>– CAN, Ethernet, current loop |
| Wireless communication (optional) | – GPRS/UMTS/SMS<br>– WiFi IEEE 802.11 b/g |

## RAILWAY ADD-ONS

| | |
|---|---|
| – WORM | Wheel flat and Out-of-Roundness Monitoring |
| – WIM | Weigh-In-Motion measurement |
| – WFM | Wheel Flange Measurement |
| – WDM | Wheel Diameter Measurement |