

## PC Based Oscillation Monitoring System



*“Fully indigenous, 2<sup>nd</sup> generation product meeting the RDSO specification RDSO/RES/003/2003 Ver4. The first and only OMS product which is RDSO approved & field proven, with 70 + installations & operational for more than 5 years.”*



Portable, rugged unit for Track Monitoring, to ensure the safety of the railway tracks

Laptop based unit capable of recording vertical & lateral acceleration on loco / coach floor, RI, different Events, along with the distance / time & instantaneous speed

Tacho mode operation; uses route tape data for unattended recording in Tacho mode

Time mode operation; External event marker for manual event entry

Works 6 hours without external power, when fully charged

Enables online print of data as well as offline reports

Suitable for operation with train speeds up to 160 KMPH

Designated as a PWI's tool being portable, compact in size, light & of robust design, with weight, including battery, less than 19 Kgs. except optional items

Multi-input power supply for system power & battery charging

Customisable to specific requirements, especially w.r.t software



**SYSTEMS AIDS**

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INDUSTRIAL ELECTRONICS & COMMUNICATION

## PC Based Oscillation Monitoring System

### PRODUCT FEATURES

- Identify, record exceedance w.r.t selected threshold
- Facility to input start km (increment / decrement), train no., coach no., up/down, odd/even, section, etc.
- Tacho to determine distance & speed during run, sync with route tape data
- Facility to load pre-generated route data to sync. events automatically, in Tacho mode
- Online analogue, digital display of acceleration values
- Auto calibration option. Static calibration at start of every run to correct minimal errors
- Default operation in time mode in case Tacho cannot be connected
- Offline reports for executive summary, exception, RI, RMS, time-to-distance, with print option
- Uninterrupted operation for ~500 Kms when fully charged
- Better viewing on laptop display screen
- External event marker for event stamping, synchronization
- NABL accredited lab report for system performance w.r.t accelerometer sensors

### PRODUCT SPECIFICATIONS

NO.	CHARACTERISTIC	SPECIFICATIONS
1	Processing System	Laptop or equivalent, having CPU 2.4 G Hz. or better, min. 160 GB HDD, min. 2 GB RAM, 14" LCD/LED display, to work with normal AC supply of 230 volts and supply available in Indian Railway coaches (110V AC/DC) and Battery backup of at least 6 hours
2	Data Acquisition System	Sampling rate: Min. 1000 samples per channel per sec Sensor Range : $\pm 2g$ Counter / Timer: Min. 1 Filter: Low pass, 10 Hz
3	Power Supply	Input: 90V to 260V AC / DC Output: Regulated DC better than $\pm 5\%$ Battery: Sealed MF, with min. 6 hours backup
4	Connectors and Cables	Interface cable for connecting signal cable from field, i.e., from two transducers / acceleration sensors Cable for connecting external event marker The cable assembly will be of suitable length having matching connector mounted at both ends compatible to data acquisition board and the terminal block respectively
5	Application software	Windows Menu driven, user friendly software providing status information about sub-system, high voltage, I/O signal (analog + digital), traction & auxiliary converter, traction motor, braking system, energy monitoring, temperature, pressure, etc.