



**IRD Mechanalysis<sup>®</sup> Limited**



# IRD811D

Digital Vibration Meter cum Spike Energy  
Detector

[www.irdmech.com](http://www.irdmech.com)

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# About IRD Mechanalysis Limited

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## **Founded in 1955 in USA**

Pioneers in the field of Vibration and Condition Monitoring

Known around the World as 'The Vibration People'

Countless Installations and Customers around the World

## **Presence in India since 1962**

Manufacturing Vibration Meters, Sensors and Monitoring System  
in Maharashtra, India

Resellers spread across multiple states of India and Globe

## **Products**

Portable Instruments - Vibration Meters and Analyzers

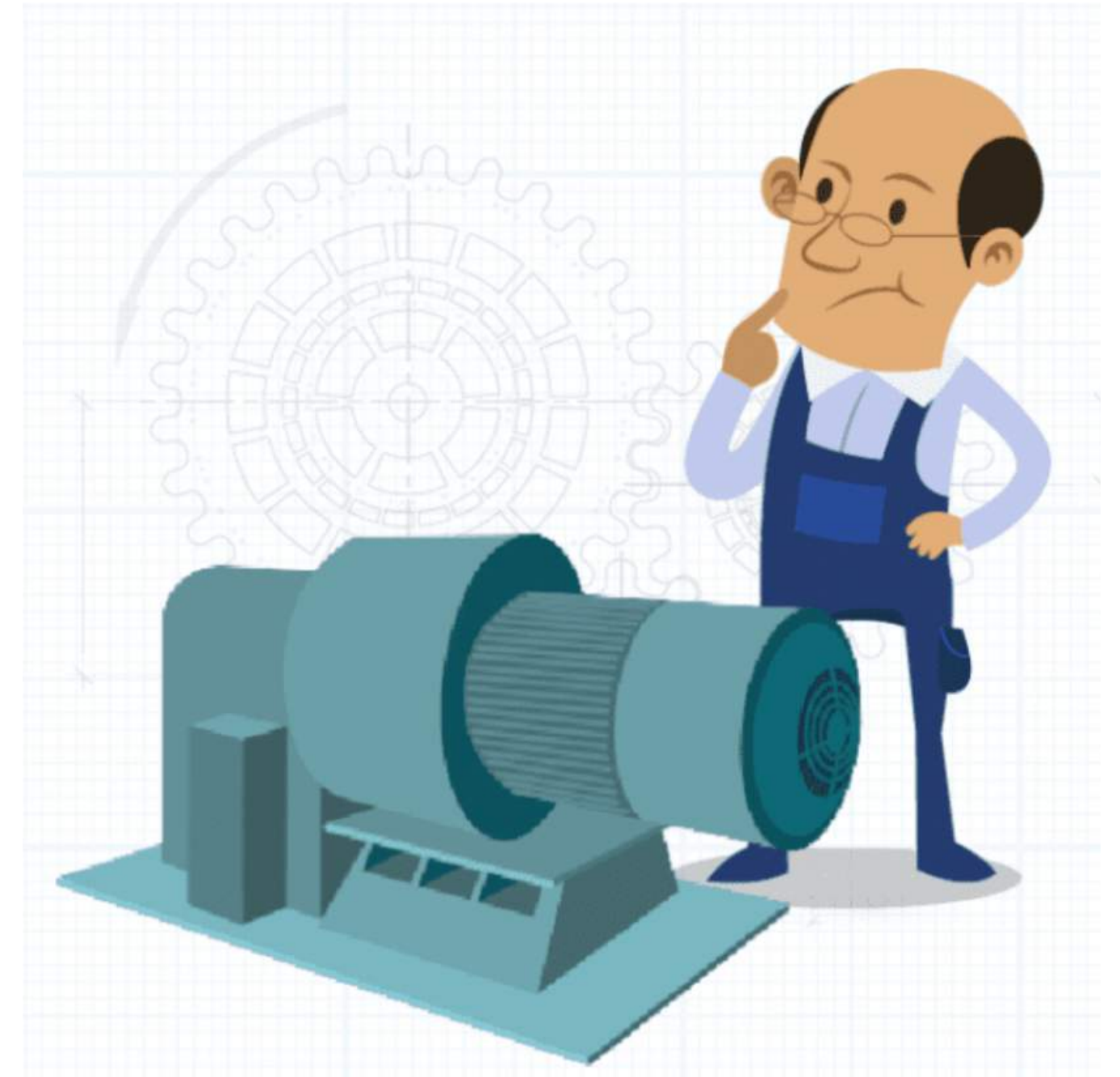
On-Line Monitoring Systems - Vibration Sensors, Transmitters,  
API 670 compliant and Cloud Based monitoring systems

## **Services**

Training, Consulting, Commissioning and Repairs and Calibration

# Why Vibration Measurement?

"Every Machine **Vibrates** when it runs; Any increase in Vibration is a sign of **Trouble**; Each trouble has its own unique **Characteristics**"





# Features of IRD811D

- Big and Clear **3 1/2 Digit LCD Display**
- Handy and Lightweight
- Easy-to-use and Learn
- **Measures Vibration Amplitude** in Acceleration, Velocity and Displacement
- Measures **Spike Energy™** for Bearing Condition and Gear
- **Rechargeable Batteries** with Charger and **Spare Cable** for Sensor part of Standard Accessories







# Technical Specifications

IRD Mechanalysis model 811D is a Portable Digital Vibration Meter cum Spike Energy Detector. It is an easy to use and read meter with a digital display. It measures machinery vibration amplitude in terms of displacement (microns), velocity (mm/sec) and acceleration (g). It is also able to help assess anti-friction bearing condition through measurement of Spike Energy (gSETM).

The broadband measurement of gSETM enable detection and measuring of “bursts” of Spike Energy at Ultrasonic frequencies. Bearing defects developing such as micro spalls, cracks and lack of lubrication can be quickly identified thus preventing unscheduled plant outage. From precision bearing inspection to plant-wide maintenance, the IRD811D has the sensitivity for measuring fractions of a micrometer to 2000 microns. Its integrated circuit technology provides wide dynamic range and long battery life.

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## Measurement Range

Displacement – 20 microns, 200 microns, 2,000 microns pk-pk

Velocity – 20 mm/sec, 200 mm/sec, 2,000 mm/sec pk

Acceleration – 20 g, 200 g, 2000 g pk

Spike Energy™ – 20 gSE, 200 gSE, 2000 gSE

RMS – Available on request

## Frequency Range

Displacement – 300 CPM to 24,000 CPM (5 Hz to 400 Hz)

Velocity – 300 CPM to 1,50,000 CPM (5 Hz to 2,500 Hz)

Acceleration – 300 CPM to 6,00,000 CPM (5 Hz to 10,000 Hz)

## Input, Output and Accuracy

Input - Accelerometer 100 mV/g IRD521

Display - LCD 3 1/2 Digit

Accuracy - +/-1% of Full Scale for Instrument. +/- 10% for Input Sensor

Power Requirements - 2 Nos. 9V, 100 mAh Dry Cells

## Environmental and Dimensions

Operating temperature - 0°C to 55°C

Storage temperature - -18°C to +60°C

Weight and Dimensions: Instrument 0.4 kg, 175 mm (L) x 80 mm (W) x 54 mm (H)

Carrying Case – 2 kg (including meter and standard accessories)