

# IMVA 440™ Intuitive VibAnalyser



**Main Menu** 15:19

ANALYZER BALANCING BUMP TEST

CONF CHECK FRF RECORDER

RUCD INSTRUMENT SETUP

Help About

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**ConfCheck** 16:21

View Stored Measurements Custom Templates Standard Templates

Use arrow keys to select the required function and press the 'Fire' key to proceed.

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**Measurement Results** 16:15

Pos	Dir	Disp	Vel	Accel
1	Hor	Rough	Rough	Good
	Ver	Rough	Rough	Good
2	Hor	Rough	Rough	Good
	Ver	Rough	Rough	Good
3	Hor	Allowabl	Just Tol	Good
	Ver	Good	Good	Good
4	Hor			
	Ver			
5	Hor			
	Ver			

Use up/down arrows to select measurement. Press Fire to take measurement. Left/right arrows toggle between grade/value. Press 0+F1 or 0+F4 to scroll through columns.

Cancel Graphic Skip Finish

# *A flexible platform*

## **The concept**

**IMVA 440™** is a flexible single tool for maintenance, inspection and diagnostic applications. It is simple, easy to use and with intuitive user interface, making it efficient for use by expert or beginner.

The **IMVA 440™** is modular measurement, instrument with individual packages available for customized applications. This flexibility allows combination of features, and option to upgrade to full data collector firmware.

These features make **IMVA 440™** an excellent choice for

- machinery diagnostics,
- production line quality testing or
- Field service tool.

**IMVA 440™** can be upgraded on will ensuring protection of investments. Simple add new software modules add new functionalities, without the need to buy new instrument!

**IMVA 440™** is a cutting edge computing engine with

1. a 400 MHz X Scale processor,
2. DSP technology.
3. Key hardware features,
4. large color display,
5. easy operation function keys
6. and high speed data acquisition capability.

The Windows CE operating system provides direct access PC environment for the seamless transfer of data.

## **Key features**

- Rugged and ergonomic for convenience of handling.
- Modular – Optimum investment at will.
- On screen assistance.
- Print directly to a portable printer in the field.
- Easy data transfer and seamless storage using Excel®.
- Communications: RS232USB, and IrDA

The **IMVA 440™** as step by step on-screen instructions for each test. Color coding highlights the status of test, alert if measurements are invalid and a status of current machinery health. Collection of valid data is therefore ensured without the need for vibration expertise or validation of data.

## **Rugged design**

**IMVA 440™** has IP65 (dust and water) sealing and 2 metre (Mil-Std 810 spec) multiple drop rating, making sure making it durable. It ensures it can withstand the daily knocks and abuse associated with use in an industrial environment. Data integrity is also

secured through internal flash memory holding data securely, even in the event of a complete hard and soft re-set.

## Data for expert analysis

**IMVA 440™** allows non expert personnel to collect data. Sometimes this data may require specialist analysis and interpretation. The recorder module enables data to be stored as a .WAV file and sent to a veteran analyst.

## Expand functionality

The **IMVA 440™** allows building of functionality by adding optional modules to enhance analytical capabilities. Should a need arise to carry out an additional form of testing, simply choose the module required and upload it to the handheld.

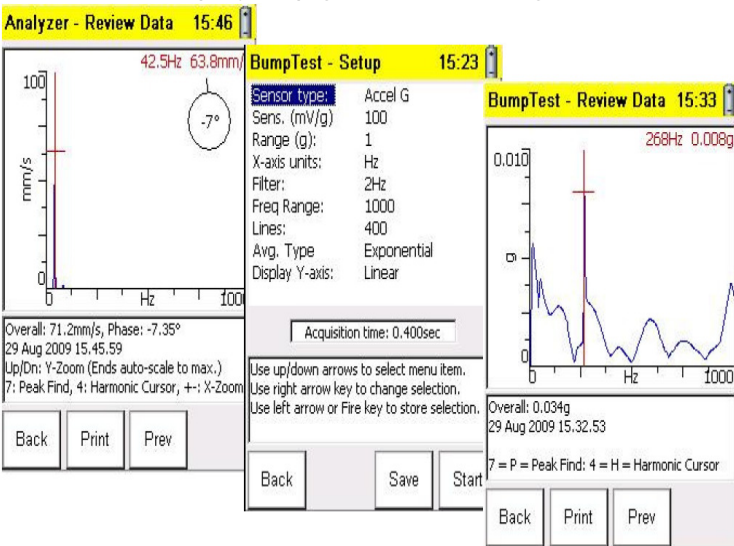
## Optional Modules:

### Conformance check module

- General machine health check applying appropriate standards: like ISO 10816
- library of test templates in accordance with frequently used standards, i.e. ISO, BS.
- Operator feedback as actual values and health status.

### Balancing module

- Static or dynamic couple balances
- High precision 1 or 2 planes balancing
- On screen step by step guide to balancing.



### VibAnalyst Analyser module

- Batch exporting into Excel – consolidate multiple worksheets into a single workbook.
- Comparisons between multiple graphs in overlay and waterfall display
- Compatible with all modules of IMVA 440.
- Graphical display with zooming and magnification,
- Dynamic cursor types (harmonic, side-band etc), and
- integration, control of engineering units and vertical scale

### Bump Test module

- Single spectrum display with absolute phase.
- Bearing fault analysis.
- Simplified checks for common machine faults.
- Identification of structure's natural frequency structural integrity and resonance frequencies
- Crack detection.

### Recorder/data logger module

- Record live vibration signatures of run up, steady state and coast down. Including logging of process variables for long time
- Storage of two channel time data (WAV) format.
- Email file for play back, analysis / diagnosis.

### Frequency Response Function

- Performs modal analysis using a calibrated hammer for excitation.
- Measurements can be exported to external software to calculate and animate the Operating Deflection Shapes (ODS).

### Analyser Module

- An easy to use FFT analyzer with on-screen phase vector readout.
- Displays Spectrum FFT, Oscilloscope, and live data

### Run-Up Coast-Down

- The run up coast down module, used to record and analyze data from machines where noise or vibration levels are changing with speed or are changing with time.
- Allows analysis of run-up and coast-down cycle of machines

# Specifications

**Input types:** ICP™ and self powered transducers

**inputs:** 2 ICP™, AC signals, DC signals, Triaxial-Accelometer

**Tachometer:** Tacho input ±40 V, tacho supply +5 V

**Input channels:** Channel 1 , Channel 2

**Transducer check:** ICP™ open circuit check, Triaxial-Accelometer

**Auto range:** Yes

**Dynamic range:** 96 dB (20 bit sigma-delta ADC)

**Frequency range:** 2 Hz and 40 kHz

**Real time rate:** 40 kHz single channel

**FFT resolution:** 100 to 12,800 lines

**Time Block Length:** 256 to 32768 samples

**Communication:** Active sync via USB, IrDA or RS232

**Internal storage:** 64 Mbyte (capable of storing approx 4,000 spectra)

**Dimensions** 186 x 93 narrowest 186 x 134 widest

**Weight:** 700 g (1,5 lbs)

**Display options:** 1/4 VGA colour TFT screen

**Droptest:** 2 metres (6,5 feet) – to MIL-STD 810 specifications

**Sealing:** IP65 (dust & water proof)

**Temperature ratings:**  
–10 to +50 °C operating temperature  
–20 to +60 °C storage temperature

**Hazardous area:** CSA – class I, division 2, groups A, B, C, D

**Processor:** 400 MHz X-scale – Intel PXA255

**Operating system:** Windows CE.Net v4.2 (core only)

**Battery:** Li-Ion smart battery pack 8 hours continuous operation

**Battery recharge:** Battery can be charged in the collector

**PC card:** PCMCIA type II **CF card:** Compact flash type II

**MMC/SD card:** MMC/SD memory card

**Printer output:** PCL/Pentax pocketjet or equivalent



**For More details :**

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