

**VA-2000** is a portable online multichannel dynamic signal analyser which enjoys the most useful vibration analysis functions all in one portable device. VA-2000 is a comprehensive solution to vibration measurement & analysis problems designed for both field and laboratory applications.

**VA-2000** has been designed to be connected either to transducers directly or to vibration protection systems and it can cover up all that needed from measurement to analysis from spectrum to orbit and other vibration damage detection functions.

## PORTABLE

**VA-2000** may be carried with its connected laptop in a case. This mobility and comfort enables user to use it extensively in different field and applications from lab to on-site applications.

## COMPLEAT SOLUTION

**VA-2000** can take up to 24 dynamic signal inputs. Inputs may be connected to all vibration transducers including accelerometer, velocity, displacement or tachometer signals. One trigger input for forced response measurement and modal analysis and one signal generator output for shaker/calibrator signal generation is also present. Moreover, being battery powered makes it useful for in-situ applications.



## ADAPTIVE

Designed for a variety of measurement applications, VA-2000 contains all the measurement functions needed in vibration analysis such as spectrum, bode, polar, orbit, balancing, modal analysis, to make sure user would not miss a function.

Everything  
needed  
All packed in  
ONE device

## EFFICIENT

**Vibsens-Pro** relieves user of all software needs from flexible measurement to expert reporting. Vibsens-Pro synergizes all functions needed for a thorough measurement, analysis & report project.

## VERSATILL

**Fully customized software** applications create an environment which meets most of sound & vibration needs from rigid / flexible rotor balancing to modal testing & analysis. In addition, various data record extensions enables user to analyse data further in 3rd party software platforms.

## CONNECTIVITY

**Vibsens-PRO can read data by TCP/IP** connection from VA-2000, it can also get data from 3<sup>rd</sup> party hardware over Modbus protocol especially used in industrial applications with important process values & parameters such as temperature, pressure ...

**Vibsens is a manufacturer of sound & vibration measurement systems** which designs and manufactures its products and produces solution packages for different applications from wind turbine to hydro machinery, from vibration labs to gearbox performance test labs each with its own customized solution.

*VA-2000 is a vibration analyser which offers 24 channels in a portable and 19"Rack solution*

**Vibsens**  
Vibration monitoring system

## 16 bits / 40 KHz

Analog digital conversion is performed by 16 bit industrial A/D converters with latest technology, and all the input signals are converted synchronously creating the least phase and amplitude lag calculation.

Flexible sampling frequency has been adopted in system in a way that user can choose from 3 channel measurement with 40 KHz sampling frequency to 24 channel measurement with 12 KHz sampling frequency.

Transducers with ICP™, AC/DC coupling output can be connected from front panel or back panel to analyzer and front LED provides info of any possible circuit breakage of any sensors. Front panel provides BNC connection for ICP® transducers while back panel is intended for 3 wire sensors which need power supply for sensor like eddy current proximity probes.

## Trigger Input

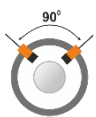
First analog input channel is for trigger signal like modal hammer, and can be programmed for force triggered measurements like impact modal testing. Level of peak force to start measurement is input and the device waits till the trigger signal reaches the intended amplitude and starts measurement.

## Generator output

There is one output on each system to provide signal generation, it is mostly used for driving dynamic shaker driving or calibrators with signal input. It can be used for creating sine, sine sweep, chirp and burst excitations. It integrates 2 KHz, ±2 V, BNC connection.

## Parallel Configuration

In this configuration, VA-2000 is connected to buffered output of 3rd party vibration protection systems and gets data from protection systems eliminating the need for cables and transducers. This applications adds condition monitoring to protection system with least possible price. This system is quite portable and may be connected to all rotating machinery of a factory with protection systems and is useful for temporary monitoring and damage detection. It gives the user all the display and analysis functions as indicated in ISO 18436-2.



Radial Shaft Vibration



Phase Reference



Contact Sensors

## Rugged device

To be useful in both site applications and laboratory applications, the device case is made in 2 options:

1) Rack mounted 2) Portable case. Rack mounted case is made from aluminum with external thick plates to protect inside from shocks. Portable case is used for academic and laboratory applications. System is fanless and fully compatible with EMC standard (IEC61326) for measurement in site environments.

## Power Supply

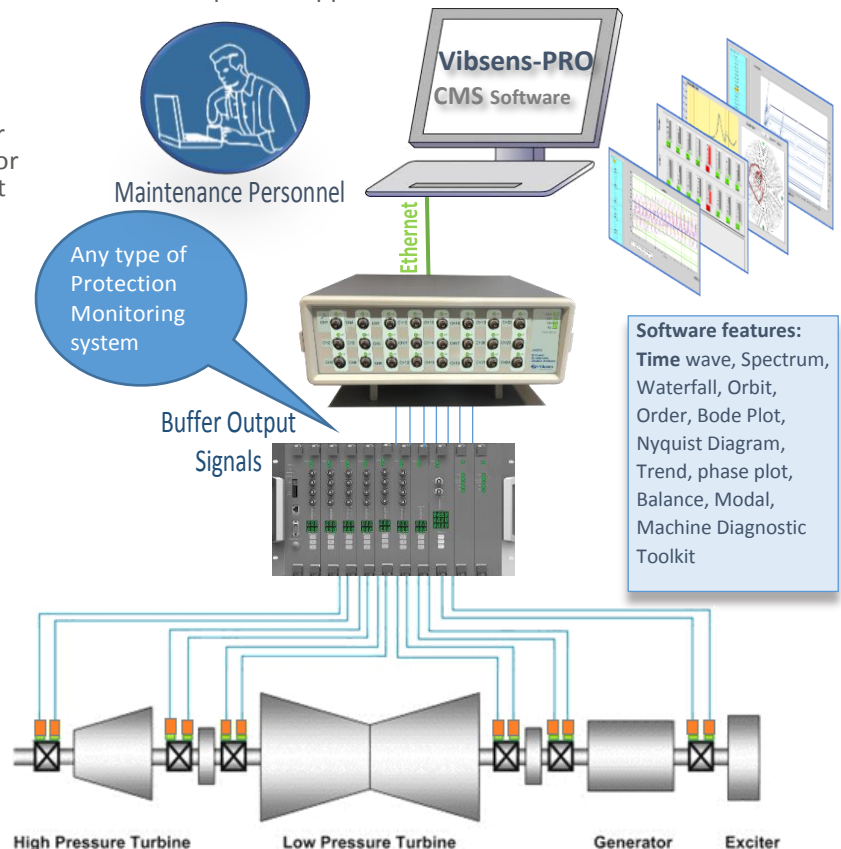
VibrProbe-2000 has a battery intended for on-site tests and applications which can endure up to 2 hour measurements, it creates power supply for both ICP®, +24 & -24V transducers.

## Ethernet connection

VibrProbe-2000 transmits data to laptop or PC over fast & reliable Ethernet connection. Moreover, having configurable IP V4 it can be easily connected to a LAN architecture or via wireless tools.

## Software Modes

VibPro-2000 has 3 software modes: CMS, Balancing, and Modal. Each mode has its own software environment developed for applications.



**Software features:**  
Time wave, Spectrum, Waterfall, Orbit, Order, Bode Plot, Nyquist Diagram, Trend, phase plot, Balance, Modal, Machine Diagnostic Toolkit