A4400 VA4 PRO II

4-CHANNEL VIBRATION ANALYZER

MASTER THE LANGUAGE OF YOUR MACHINERY

Adash

A4400 VA4 Pro II

THE FASTEST 4-CHANNEL VIBRATION ANALYZER

> Adash expert system for automatic machine fault detection
> Large colour display

4 channel signal recording

The A4400 - VA4 Pro II is a unique instrument for machinery vibration diagnostics. The A4400 - VA4 Pro II includes modules for analysing, data collecting and vibration signal recording. The instrument is enhanced by modules for dynamic balancing, measurement of run up and coast down, acoustic measurement mode, ultrasound measurement, monitoring and control of lubrication process and listening to the vibration signal with the stethoscope feature. The instrument is equipped with an expert system developed by Adash, which automatically detects machinery faults.

The A4400 - VA4 Pro II is designed for engineers, technicians and researchers dealing with machinery and structural diagnostics as well as dynamic balancing of rotating machinery.

EXPERT SYSTEM

› Automatic machine fault detection
› ISO 10816-3 included
› Bearing database included

DATA PROCESSING

› FFT 3 276 800 lines in real time
› Frequency range up to 90 kHz
› 20 hours recording of 4 channels
› Demodulation - envelope analysis, Order analysis
› ACMT - low speed bearing analysis
› User defined frequency bands

TOP PANEL

INPUT CHANNELS
› 4 AC, ICP®(On/Off), +/- 12 V pp
› 4 DC process values, +/- 24 V
› 1 TACHO

A/D CONVERSION
› 24 Bit A/D conversion
› 64 Bit signal processing
› 120 dB dynamic range
› No Auto-Gain

USB 2.0
› High speed data transfer
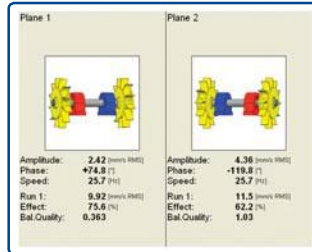
HEADPHONES
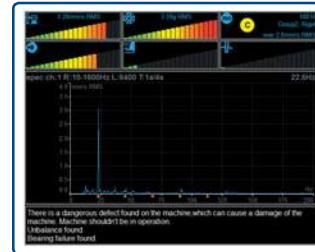› Listening to vibration signal

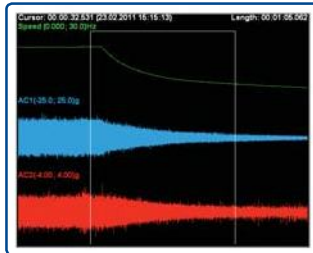# A4400 VA4 Pro II MEASUREMENT MODES

ANALYZER
› 4 channels simultaneously

BALANCER
› Intuitive graphical balancing procedure
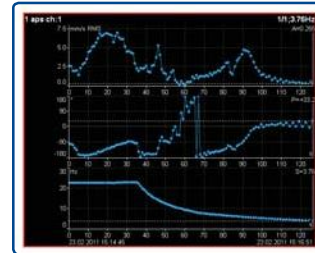
EXPERT SYSTEM
› Automatic fault detection

RECORDER
› 4 channels recording
› 20 hours signal recording
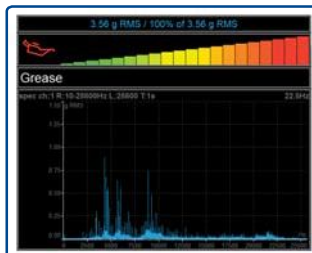
ROUTE
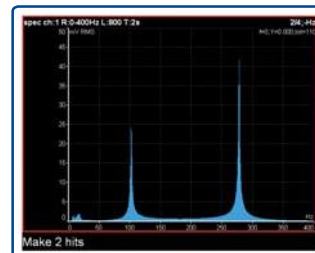› 8000 measuring points
› DDS software

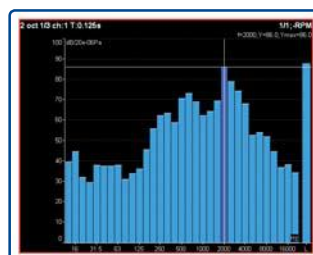RUN UP/COAST DOWN

STETHOSCOPE
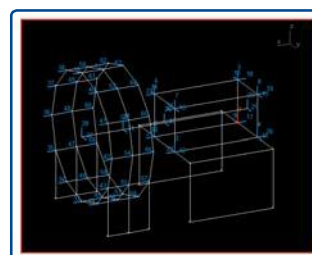› Listening of vibration signal

LUBRI
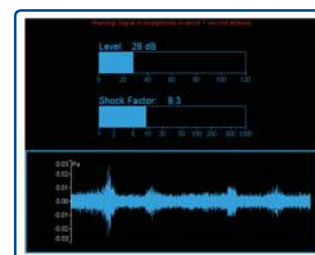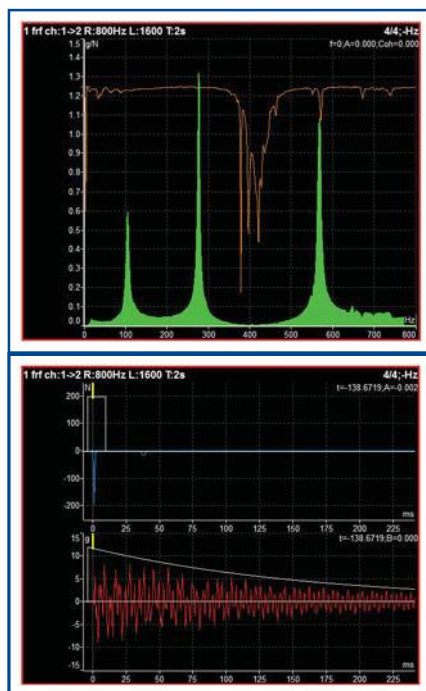› Monitoring and control of lubrication process

BUMP TEST

OCTAVE ANALYSIS

ADS
› Animated deflection shapes

ULTRASOUND

FREQUENCY RESPONSE FOR MODAL ANALYSIS

› The A4400 VA4 Pro II enables to measure frequency response for modal analysis purposes. It is attractive substitute for large systems, which are usually used for modal analysis measurements.

› Data are exported in UFF format. They are easily imported to every modal analysis software.

RECORDER MODE - WHEN IT IS USEFUL

Let's say you are going to measure a big industrial blower to find out its behavior during run up. You place the sensor on the machine and set up your measurement. Then you ask the operator to run it and he starts the machine. After a few seconds you realize that you have set your measurements incorrectly and you ask the operator to stop the machine and run it again. But his answer is: "I am sorry sir, the control system will not allow me to run it again, we cannot stop the production now, you have to come over here next month." This could be a problem for you, couldn't it? With the Recorder mode you will avoid such a situation.

Just place the sensor on the machine, run the Recorder mode and record the raw signal during the run up of the machine. Later on, you can analyze this record in the office. In other words you can set any measurement which you like and play this recording again and again to get the required results.

RAW SIGNAL RECORDING

› Record the raw signal when you are not sure about the setting. Post-analyze the recorded signal later in the office.

› With the A4400 VA4 Pro II you can record up to 4 channels simultaneously.

› A4410 Virtual Unit software for post-analyzing is possible to download from Adash website free of charge.

› 20 hours signal recording (4 channels, 64 kHz sampling frequency)

A4400 VA4 PRO II TECHNICAL SPECIFICATIONS:

Input channels:	4 AC, ICP® power supply on/off 4 DC for process values 1 TACHO for external trigger
Input range:	AC +/- 12 V peak-peak DC +/- 24V
AD conversion:	24 bit, 64 bit internal signal processing No AutoGain function!
Dynamic range S/N:	120 dB
Frequency ranges:	Maximum range: 1 Hz - 90 kHz (1 Ch, 194 kHz sampling) Maximum range: 1 Hz - 25 kHz (4 Ch, 64 kHz sampling) Minimum range: 1 Hz - 25 Hz (4 Ch, 64 Hz sampling)
Sampling mode:	Fully simultaneous for 4 channels
FFT resolution:	Min. 100 lines Max. 3 276 800 lines
Unit modes:	Analyzer - analytic measurement Data collector - route measurement Balancer - on-site balancing Run up/Coast down Recorder - signal recording Stethoscope FASIT - Expert system for fault detection Octave analyzer Bump test ADS - Animated Deflection Shapes Ultrasound
Processor:	Intel Atom 1.9 GHz
Memory, Route:	64 GB, max. 16 GB for one route, number of routes is limited by free memory only
Data processing:	Real time FFT DEMOD - ENVELOPE analysis ACMT - low speed bearing analysis Order analysis User band pass analysis RPM measurement DC measurement Orbit measurement
Signal recorder:	64 kHz sampling frequency 4 Ch memory consumption 3 GB/hour 4 Ch total recording - 20 hours
Trigger:	Manual, External, Signal level, Time Use for signal recording trigger Speed change, Time interval
Display:	Colour 1136 x 780 pixels, LCD
Communication:	USB
Operating temperature range:	-10˚C to +50˚C
Power:	Battery 8 hours of operation, AC 230 V
Case:	Aluminium heavy duty
Size & Weight:	280 x 205 x 55 mm, 2200g

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