

# Hoxville® VIB105 Triaxial Vibration Analyzer

## Product leaflet

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**Hoxville VIB105 means a modern way to monitor and safeguard the condition of the rotating machinery. VIB105 combines measuring sensors and data analyzing in a handy size. VIB105 carries out independent analyze of the measurements and reports the state of the condition.**

VIB105 is competent in condition monitoring of wind turbines, water turbines and machinery. Hoxville VIB105 is applied in rotating machinery and equipment e.g. electric motors, generators, gear boxes, pumps, compressors, fans and turbines.



The Analyzer implements web technology and thus will connect to various systems easily. Reasoning graphics and the performance index illustrate the health of the condition. Neural networks are utilized in harvesting the measurements and diagnosing the condition. Hoxville VIB105 Analyzer can be applied as a remote monitoring device cementing the service offering to the customer.

Numerous methods of signal processing are executed to harvest and analyze the measured data. Implementing these methods the expert system computes the status of the condition.

- FFT spectrum analysis up to 25600 points.
- Envelope detecting at several band pass alternatives.
- Time series analysis to compute statistics and key indicators.
- Cepstrum spectrum especially for gear boxes.

VIB105 operates fully independently without user's effort. The results or data are transferred via the Ethernet or optionally Modbus interface to the automation or monitoring system. VIB105 works as a stand-alone server enabling links to internet to study the results and indicators. Even the web service technology can be applied to VIB105.



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### Benefits

- Solid and reliable structure
- Sensitive measurement over a wide frequency range
- Diagnosing key ratios and usability
- Mounting at original manufacturing site or as after-sales
- Operating independently on its own or in a network
- Creating opportunities to a service business

### Properties:

Sensors	
Measuring channels	6 accelerometers 2 channels (xyz) 1 synchronizing channel
Vibration parameters	
Amplitudes	Acceleration, speed
Detectors	RMS, peak values, crest factors
Frequency bands (ISO)	2-1000, 10-1000, 10-2000Hz
FFT spectrum	
Frequency ranges	25, 50, 100, 200, 400, 800, 1600, 3200, 6400
Resolution	1600, 3200, 6400, 12800, 25600
Dynamic range	90dB channel 1, 60dB channel 2
Weighting functions	Hanning, Flattop
Envelope ranges	50, 100, 200, 400, 800, 1000,1250, 1600, 2000, 2500, 3200, 4000, 5000
Units	Acceleration m/s <sup>2</sup> , speed mm/s

### Typical values:

Measuring ranges			
Parameter	Channel 1 (xyz)	Channel 2 (xyz)	Note
Frequency range	1-7000 Hz	0-50 Hz	±3dB
Amplitude range	30m/s <sup>2</sup>	10m/s <sup>2</sup>	
Resolution	0,001 m/s <sup>2</sup> (0,1mg)	0,01 m/s <sup>2</sup> (1mg)	
Accuracy	5%	5%	Operational
Power and mechanical values			
Voltage	12-48VDC		
Power	2W		
Operating temp	-20° - +70°C		
Weight	250g		
Mounting	M6x50		Allen screw A4
Material	Aluminium 6082		Anodized

Hoxville® is a registered trademark of Hoxville Oy

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