Vibrometer

N100

Single channel vibrometer
Frequency analyzer
Tachometer
Is your rotary machine functioning correctly?

Are the motors, fans, pumps, electro-spindles, machine tools, reels, stranding machines, compressors or cooler units working correctly or do they require maintenance?

Thanks to vibration measurement it is possible to assess the state of the machinery, then decide what strategy to adopt. CEMB with its N100 is at the service of machine manufacturers, maintenance technicians, end users and any other person requiring to measure vibration and check its frequency.

Vibrometric monitoring in the assembly line with downloading of data on a PC and integration in the control system are just some of the application of the ergonomic instrument.

User-friendliness and rapid action are the great advantages of the N100 instrument.

With the N100 instrument it is possible to measure the overall level of vibration (ISO10816-3) and perform synchronous measurements (1xRPM), through the optional photocell.

The quick-acting connectors allow rapid and efficient connection to the sensor while the mini USB port allows data transfer to a PC.
N100 Quick solution for vibration measurement

Standard features:

- Nr. 1 practical carrier case
- Nr. 1 accelerometer transducer
- Nr. 1 accelerometer connection cable
- Nr. 1 magnetic base
- Nr. 1 probe
- Nr. 1 USB cable for downloading data
- Nr. 1 battery charger
- quick user manual
- instruction manual on CD-rom

Optional accessories:

- Photocell (18000RPM) complete with stand and magnetic base
- 10 m extension lead for transducers
- Sensor cables, length 5 m
- N-Pro data control software with provision for customizing the reports

N-Pro, software package designed for archiving and analysis of your data

N-Pro, Professional Environment for N-Instruments, is the compatible software for the N100 instrument. By simply pressing a button this software can transfer all data stored in the instrument to the PC and also to perform automatic archiving. At any moment it is possible to display, process or analyze the data and use such data to generate special reports in pdf format or hard copy.

The report forms supplied together with the software are suitable for the more frequent situations, but it is also possible to create new fully personalized report forms thereby catering for the needs of the most demanding customers.

Thanks to the data saved by the N100, the N-Pro SW is able to display FFT spectra for trouble shooting on rotary machines.
Functions:
- Measurement of the overall vibration value (acceleration, velocity, displacement)
- Measurement of synchronous vibration value and phase
- Analysis of vibration in the frequency range

Measurement types
- RMS value (RMS)
- Peak value (Pk)
- Peak-to-peak value (PP)

Units of measurement
- Acceleration: [g]
- Velocity: [mm/s] o [inch/s]
- Displacement: [µm] o [mils]
- Frequency: [Hz] o [Rpm]

Inputs
- 1 Independent measuring channel (acceleration transducer, velocity transducer)
- 1 photocell channel (velocity and angle reference)
- 1 mini USB port for data transmission
- 1 battery charger input

Vibrometer functions
- Measurement of the overall vibration value in predefined frequency bands
  (1-100Hz  2-200Hz  5-500Hz  10-1000Hz)
- Measurement of the value and phase of the vibration of the main frequency and the first five harmonics.
- List of the five highest peaks.

Tachometric Function
- Display of the speed through photocell (optional)

FFT Function (Analysis in frequency)
- FFT analysis with N-Pro software
- Maximum allowed frequency
  (1-100Hz  2-200Hz  5-500Hz  10-1000Hz)
- Resolution (400 lines)
- Number of averages: from 1 to 16

General characteristics
- Display: 128x64 LED
- Approx. dimensions: 180 x 84 x 45 mm
- Weight: approx. 300 gr

Operating conditions
- Temperature: from -10° to +50° C
- Air humidity: from 0 to 95% without condensate

Power supply
- Rechargeable 1.8Ah Lithium battery
- Charging time: < 5 hours (when battery is fully discharged)
- Battery charger for 100-240 Vac, 50/60 Hz (8.4V DC, 0.71 A, 60W max)
- Battery life: > 10 hours based on typical use