Vibration Analyzer VA-14

CE

RION

TENTATIVE

Vibration Analyzer

VA-14

— Single channel analyzer also capable of microphone connection —

Beyond trust to a new frontier in measurement

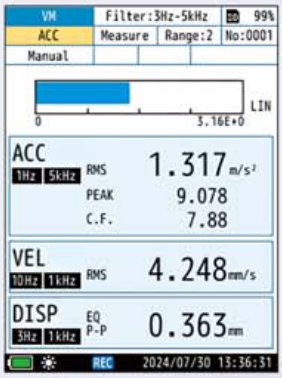
RION's New Vibration Analyzer VA-14

Vibration Meter Mode

- Allows simultaneous measurement of acceleration, velocity, displacement, and acceleration crest factor

New

- Filters (HPF, LPF) can be set for acceleration, velocity, and displacement, respectively



Vibration meter mode

FFT Analyzer Mode

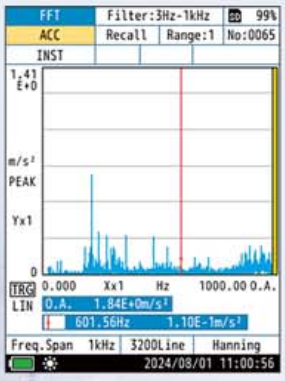
- Real-time analysis frequency 20 kHz
- Time waveform display and spectrum display with up to 3 200 spectral lines. Envelope processing also supported.

New

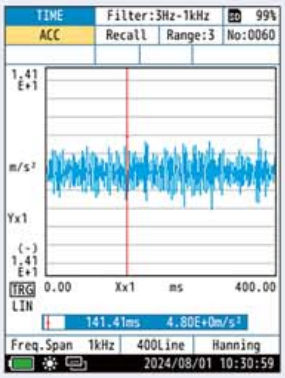
- Simultaneous saving of linear average value and maximum value

New

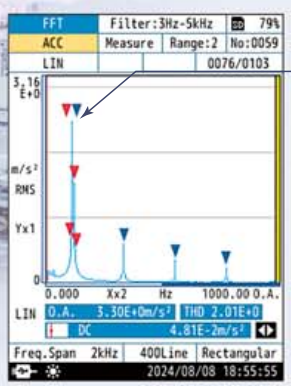
- Two types of peak detection functions
  - Displays top 10 spectra with "TOP10"
  - Displays top 10 peaks with "PEAK10"



Spectrum display (3 200 lines)



Time waveform display



110 Hz

Peak detection example

▼ **TOP10**
Detects spectra around 110 Hz

▼ **PEAK10**
Detects spectra at odd multiples of 110 Hz

▼▼ are not displayed on the actual screens. It is only shown in the catalog.

Piezoelectric Accelerometer PV-57I (Supplied)

New

Equipped with "function keys"

Assign functions and perform operations with one push

Function Key

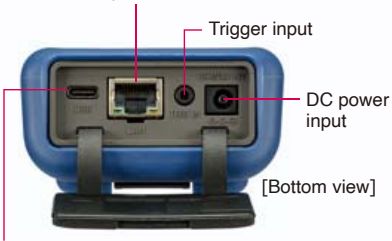
New

LAN terminal

– Connect to the network –

Allows control of the device and transfer of files (CSV, WAVE) stored on the SD card

＊VX-14S is required to obtain measurement data



New

USB Type-C connector

– Compatible with USB power supply –

Long-term measurements are possible even in locations without power outlets

Easy to hold with one hand. Ideal for field measurements.

Achieved 30 % weight savings from previous model VA-12 Approx. 850 g

→ Approx. 660 g

(Including supplied accessories and batteries)

Take your VA-14 on-site for a wider range of use

New Features

Option program
Superior function program VX-14S

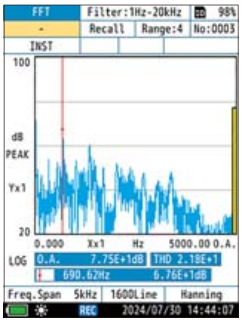
After installation, it can be used as a 2 GB SD card.

Installing the VX-14S adds the following function

Sound Measurement
(Operates in FFT mode)

[Microphone and preamplifier connection function]

Allows sound measurement by connecting a microphone. Covers both vibration and sound evaluation with just one VA-14 unit.



Measurement screen

Usage Examples FFT analysis separates noise and vibration. This can be used to evaluate the quietness of machines, detect abnormal noise, and consider countermeasures.

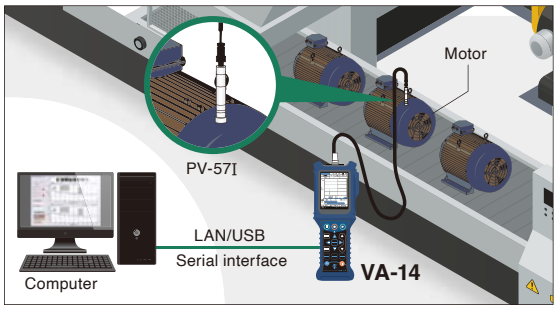
Target fields Noise and vibration analysis of automobiles, home appliances, etc.

Enhanced connection with communication devices
[Communication function (LAN/USB)]

By connecting via either USB or LAN, communication with a computer is possible, and control of the device along with the following functions can be used via commands:

- Acquisition of display values
  (vibration value, time waveform, FFT analysis value)
- Continuous acquisition of instantaneous values
  (vibration value: 100 ms/1 s, FFT analysis value*)
- Acquisition of calculated values
  (vibration value: calculation cycle 10 s/1 m/user setting,
  FFT analysis value: after calculation)

*Available when connected to LAN



Usage Examples Utilize measurement data from VA-14 to build pass/fail evaluation systems on production line and vibration monitoring systems. *Software for the computer is required separately.

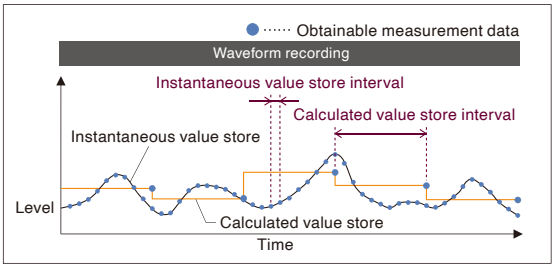
Target fields Quality assurance and production technology for automobiles, home appliances, etc.

Long time vibration recording **(Operates in vibration meter mode)**
[Auto store function]

Instantaneous values and calculated values can be recorded continuously at the same time.
Allows measurement of time-based changes in vibration values.

[Long time waveform recording function]

Records vibration waveforms in WAVE format.
(Select one from acceleration, velocity, or displacement)
Recorded data can be used to perform frequency analysis on a computer.
Maximum recording time: 200 hours



Usage Examples Evaluate changes in vibration and the effects of vibration when load conditions, such as the rotational speed of equipment and pump water volume are changed.

Target fields Design and development of equipment and machinery, quality assurance

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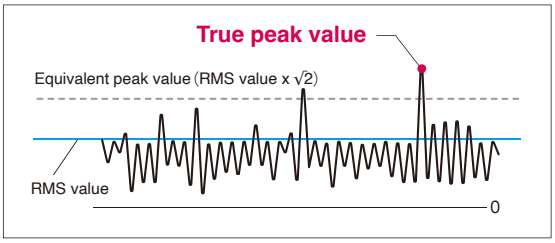
Accurate evaluation of machinery condition
[Peak calculation function]

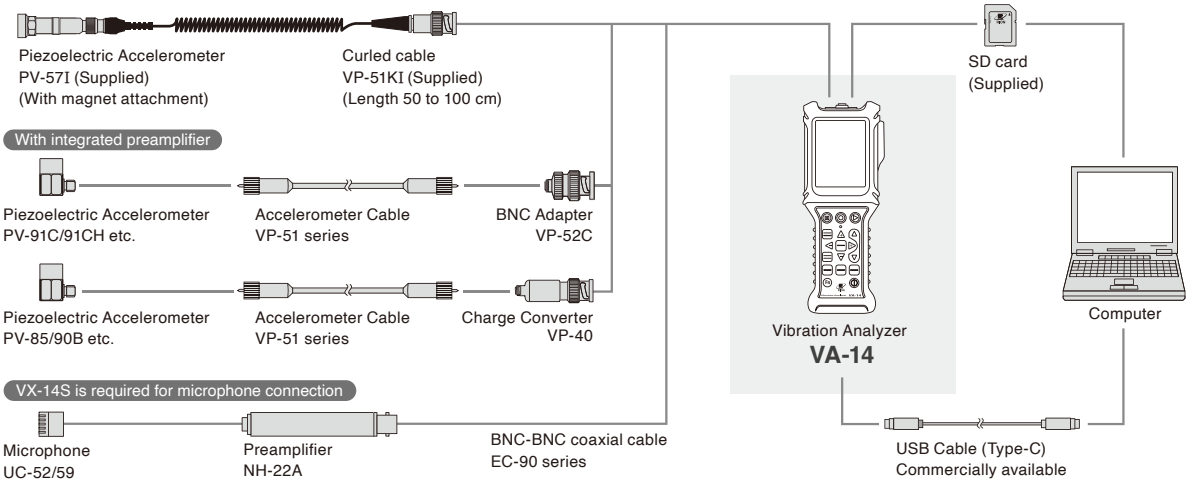
Calculates true peak values not only for acceleration but also for velocity and displacement
In addition to the equivalent peak value which is calculated from RMS multiplied by √2, the true peak value of the vibration waveform can be calculated, allowing for more accurate evaluation.



Usage Examples Helps detect machine and equipment failures in early stage, improving production efficiency

Target fields Equipment maintenance, machine design and development

Related Products (Connection Configuration Example)



Calibrator for Field Measurements

Calibration Exciter VE-10

Calibration of Piezoelectric Accelerometers and Vibration Meters

Specifications

Calibration frequency	159.2 Hz
Calibration Level	10 m/s²

Sound Calibrator NC-75

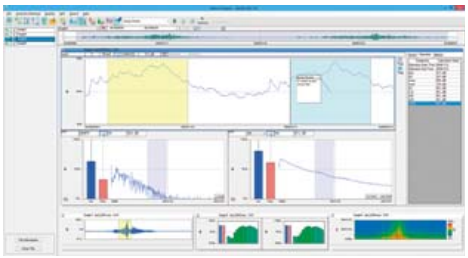
Calibration of microphones and sound level meters (JCSS calibration certificate included as standard)

Specifications

Calibration frequency	1 kHz
Calibration Level	94 dB

Waveform Analysis Software AS-70

Capable of reading WAVE files, graph display, normalization processing, frequency analysis (FFT analysis, octave analysis), file output, and playback.

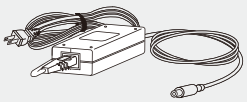


Optional accessories

Carrying Case

Hand Strap

AC adapter NE-21P



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