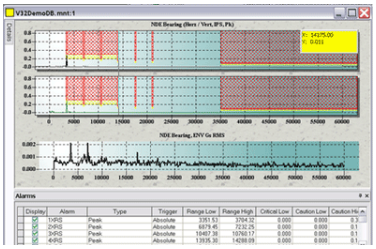
MAINTelligence™ Options

Vibration Data Analyzer commtest vb7™

vb7 Feature Summary

- Improved ergonomics for walk around data collection
- Large, high resolution (HVGA) backlit LCD
- True left- and right-handed operation
- Multi-channel on route recordings (collectors and analyzers only)
- 1 GB memory – virtually unlimited spectra and waveform storage
- 10 hour battery life
- Lightweight, rugged IP65 rated cases
- DC coupled sensor support
- 12 800 lines of resolution (max)
- 40 kHz Fmax
- Single, Dual or Four-channel recordings depending on model
- Triax. compatibility (vb6™ and vb8™ instruments only)
- CSA Class I, Division 2 Hazardous Locations certification
- USB host port for data transfer to external USB memory
- 5 year warranty.

MAINTelligence — the leading edge software for vibration analysis, is made even better by the addition of a direct interface to the commtest vb7™, an advanced tool for vibration data collection.



MAINTelligence Vibration - Spectra with Alarms

MAINTelligence uploads the commtest vb7™ analyzer data for complete vibration analysis.

MAINTelligence has the analysis tools needed to carry out both simple and advanced analysis of trends, spectra and time waveforms. With the combination of the vb7 and MAINTelligence's intuitive, easy-to-use tools, you can identify and categorize peaks, post process waveforms and overlay fault frequencies.

The vb7 offers the power and convenience of dual-channel measurement and dual-plane balancing. Its balancing functions enable the quick diagnosis and correction of dynamic unbalance, the most common form of unbalance.

The vb7 instrument's combination of accuracy, intuitive operation, ease of use and outstanding storage capacity ensures the vb7 analyzer delivers a premium return on investment.

Together the vb7 and MAINTelligence provide all the tools needed to build an excellent vibration program.

Vibration Data Analyzer - commtest vb7™

Sensor Input
Channels (simultaneous): 2
Sensors: Accelerometer, Velocity, Displacement, Current
AC coupled range: 16 V peak-peak
DC coupled range: 0 V to 20 V, -10 V to 10 V, -20 V to 0 V
Connectors: 2x BNC
Analog to digital conversion: 24-bit ADC
Sensor excitation current: 0 mA or 2.2 mA (configurable), 24 V maximum
Sensor detection: Warns if short circuit or not connected

Tachometer
Sensor: Laser sensor with reflective tape included in kit
Laser sensor range: 10 cm to 2 m nominal
Other Sensor types supported: Contact, TTL pulse, Keyphasor®
Power supply to sensor: 5 V, 50 mA
TTL Pulse Rating: 3.5 V (4 mA) min, 28 V (6 mA) max, off-state 0.8 V
Keyphasor threshold:13 V ± 1 V
Speed range: 30 RPM to 300 000 RPM (0.5 Hz to 5 kHz)

Parameter Indication
Maximum levels: ›1000 g (10 000 m/s2), ›1000 in/sec (25 000 mm/s), ›100 in (2500 mm), ›10 000 Amps
Dynamic signal range: ›95 dB
Harmonic distortion: Less than -70 dB typical
Units: g or m/s2, in/s or mm/s, mil or mm or µm adB, vdB, amps
Magnitude & Cursors: Overall RMS value, dual cursors, harmonics
Accuracy: ± 1% (0.1 dB)
Frequency response: ± 0.1 dB from 10 Hz to 15 kHz; ± 3 dB from 1 Hz to 40 kHz

Spectrum Display
Fmax possible ranges: 25, 50, 100, 125, 150, 200, 300, 400, 500, 600, 800, 1000, 1200, 1600, 2000, 2500, 3000, 4000, 5000, 6000, 8000, 10 000, 15 000, 20 000, 30 000, 40 000 Hz
Fmin possible range: 0 to Fmax
Resolution: 400, 800, 1600, 3200, 6400 lines
Frequency scale: Hz, CPM, Orders
Amplitude scale: Acceleration, velocity, displacement or current
Window shapes: Hanning, rectangular
Overlap: 0, 12.5, 25, 37.5, 50, 62.5, 75, 87.5)
Number of averages: 1, 2, 4, 8, 16, 32, 64, 128
Averaging types: Linear, exponential, peak hold, synchronous
Demodulation bandwidths: 21 bandwidth options

Waveform Display
Number of samples: 1024, 2048, 4096, 8192, 16 384
Time scale: 10 ms to 640 seconds
Time synchronous averages: 1, 2, 4, 8, 16, 32, 64, 128
Long time waveform: Up to 40 kHz Fmax (28 M samples)

Logging Features
Data storage: 1 GB
Data storage structure: Folders / machines / points /locations /routes
Max Folder size: 10 000 measurement locations
Direct print reports: Via Ethernet to PCL-enabled printer

Balancing
Planes: 2 planes, 2 sensors
Speed range: 30 to 60 000 RPM
Measurement type: Acceleration, velocity, displacement
Weight modes: Angle 0˚ to 360˚, fixed position, circumference arc
Remove trial weights: Yes, No
Manual data entry: yes
Storage: Against machines in data structure
Channel Selection: Single or dual channel

Display & Communications
Resolution: 480 x 320 pixels (HVGA) Graphic Greyscale LCD
Viewing area: 4.6" x 3.1" (117 x 79) mm
Backlight: White LED, 4V, 100 Cd/m2
Communications with PC: USB and Ethernet
USB host port: yes

Battery & Charger
Battery Type: Custom Lithium Ion pack, 7.4 V, 4500 mAh
Operating time: 10 hours
Charger type: Internal charging, automatic control
Charge rate: 3A nominal

Mechanical
Size: 9.9" W x 5.8" L x 2.4" H (252 x 148x 60) mm
Weight: 2.7 lb (1.2 kg) including battery

Environmental
Operating Temp: 14 ˚F to 122 ˚F (-10 to 50) ˚C
Storage Temp & Humidity: -4 ˚F to 140 ˚F (-20 to 60) ˚C, 95% RH
EMC: EN61326
Ruggedness: IP65 / 4' (1.2 m) drop onto concrete / MIL-STD-10F-IV
Hazardous Locations: CSA Class I, Division 2 (Groups A, B, C, D)
Certification: CE

Specifications
Route enabled √
Spectrum/Waveform √
6Pack √
Keypad entry √
Average value: Acceleration, Velocity, Displacement and Current units only
Time Synchronous Averaging √
Bump test √
Coast-down/Run-up √
Cross-channel phase √

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