



# FIELD VIBRATION ANALYZER

Our Field Vibration Analyzer is a Data Collector, multi-channel, FFT analyzer made for predictive maintenance and machine diagnostics. The analyzer can measure, process, display and store a wide variety of analysis modes in addition to place spectrum marks, harmonic peaks and side bands.



## FIELD VIBRATION ANALYZER SPECIFICATIONS

### INPUTS

Channels	6
Sources	Acceleration, AC/DC Sensors
Connectors	Connector A and B are 5-Pin Amphenol
Connector A	Channel 1, 3 and 5
Connector B	Channel 2, 4 and 6

### MEASUREMENT

Amplitude Accuracy	1%
Measurement Windows	Hanning, Flat Top, Rectangular
Velocity and Displacement	With High-Pass Filters
Programmable 1%, 5% and 10% FMAX Filters	1.25-2.5 KHz, 2.5-5 KHz, 5-10 KHz
Averages	1-2-5-10-20-50
Spectral Synchronous	Time, Peak Hold and Continuous

### HARDWARE & SOFTWARE

Resolution	400, 800, 1600, 3200, 6400, 25,600 Lines
Memory	Internal RAM: 128 MB
Micro SD	8 GB
Digital Integration	Ethernet or WiFi
Microprocessor	Nvidia, TEGRA 2, Dual-Core
DSP Processor	Analog Devices ADSP-2191M
USB Communication with SMP	Active Sync WiFi (Optional)
Battery	Rechargeable Lithium Ion
Casing	IP 65/DIN EN 60529, Aluminum
Weight	Approximately 1.6 Kg (3.65 lbs.)

### FREQUENCY

Range	0.2 Hz-20 KHz
Low Frequency	Cut-off: 0.18-70 KHz

### TRIGGER

Modes	External or Laser Tach
Levels	Fixed or Automatic
Exterior Trigger Slope	Amplitude and Slope

### DISPLAY

Data Delivery	6-Channel Spectrum
5-Channel Time Orbit	Phase Table
Cross-Channel Phase	Process
Time Plots	Dual Spectrum
	2 Tri-Axial Plots

## FIELD VIBRATION ANALYZER APPLICATIONS

### VIBRATION MEASUREMENT

#### Bearing Measurement

- Bearing Condition
- Lubrication
- High Peaks
- Trending

#### Spike Energy®

- Amplitude by Failure Frequencies
- Spike Energy® State
- Trend

#### ISO 10816 Measurement

- ISO 10816 Status
- Balancing Status
- Alignment Status
- Looseness Status
- Trend

#### Dual Channel

- Bearing Condition
- Mechanical, ISO Condition
- Dual Channel Recording Function



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## VIBRATION ANALYSIS

### PRECONFIGURED SPECTRAL MEASUREMENTS

- Velocity
- Displacement
- Acceleration
- Envelope

### MECHANICAL STATUS TOOLS

- ISO 10816 Status
- Balancing Status
- Alignment Status
- Looseness Status

### TRIAxIAL SPECTRAL MEASUREMENTS

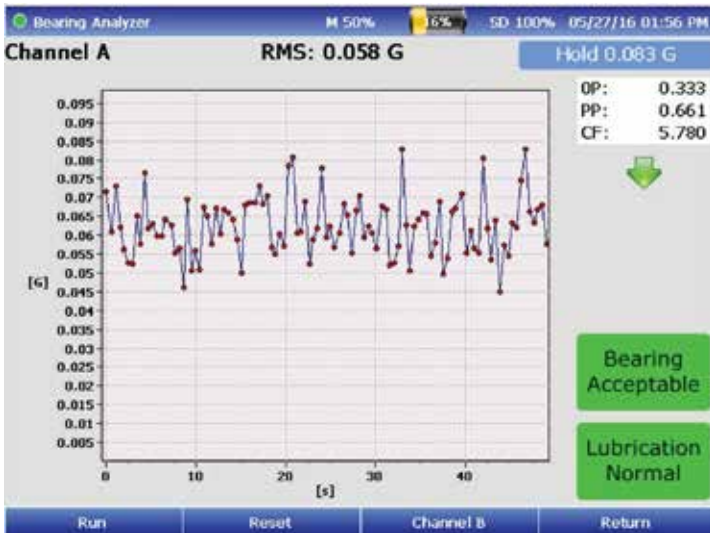
### CONFIGURABLE SPECTRUM MEASUREMENTS

- With Accelerometers
- With Proximometers
- With Velocimeters
- AC

### SCALAR MULTIVARIABLE MEASUREMENT

### TACHOMETER RPM MEASUREMENT

### DUAL CHANNEL SCALAR MEASUREMENTS



## VIBRATION PHASE ANALYSIS

### RELATIVE PHASE MEASUREMENT

### ABSOLUTE PHASE MEASUREMENT

### SAMPLES TO MEASURE AND POSITION SENSORS INCLUDE:

- Polar Graph
- Phase Trend
- Dual Channel Waveform

## ELECTRICAL TESTING

### MOTOR CURRENT SIGNATURE ANALYSIS

- Detecting Rotor Bar Failure
- Monitoring 3 line currents & 3 line-to-line voltages to detect voltage/current unbalance
- Detecting Harmful Harmonics & Distortions
- Check Efficiency
- Detect & Identify Load Oscillation

## MACHINE BALANCING

### SINGLE PLANE BALANCING

### DUAL PLANE BALANCING

### NO-PHASE BALANCING

### DUAL CHANNEL SPECTRUM

### FINAL CORRECTION REPORT

### REPORT GENERATOR

### CALCULATIONS TO ADD OR SUBTRACT WEIGHT

## DATA COLLECTION

### MULTI-LOCATION POLLING

### ROUTE VISUALIZATION TOOLS

### MECHANICAL STATUS TOOLS

### EQUIPMENT DIAGRAM

### EQUIPMENT PICTURES

### ROUTE EQUIPMENT POINT MEASUREMENT

### ROUTE REGENERATION OF UNMEASURED POINTS

### AUTOMATED FUNCTION: QUICK OR DETAILED

### ALARM SYSTEM IN SPECTRUM OR SCALAR

### MANUAL MEASUREMENT STATUS SYSTEM

## EXPERT ANALYSIS

### MULTI-CHANNEL SPECTRUM MEASUREMENT BODE GRAPHICS

### ORBITAL FUNCTION WITH OR WITHOUT FILTERING

### CONFIGURABLE SPECTRUM CASCADE

### ELECTRICAL ROTOR ANALYSIS

### CROSS REFERENCE SPECTRUM

### PROGRAMMABLE CONDITION MONITOR FUNCTION

### HUMAN BODY VIBRATION MEASUREMENT (OPTIONAL)