

DSP Logger Expert®

Precision, sturdiness and versatility all in one

Vibration Measurement
AC/DC measurements
Vibration Analyzer
Data Collection
Phase Analysis
Machine Balancing
Multichannel Expert Analyzer
Continuous Monitoring Function
Human Body Vibration Analysis
Motor Current Signature Analysis



USB 2.0



6 (SIX) SIMULTANEOUS CHANNELS
Two triaxial sensors working simultaneously

DSP Logger Expert

Advanced 6CH Vibration Analyzer

The DSP Logger Expert is a data collector, multichannel, FFT Analyzer made for Predictive Maintenance and machine diagnostics.

The instrument can measure, process, show and store a wide variety of analysis modes. It can work as standalone or you can download the measurements your PC via its software.

Customers in Latin America already have been relying on the cost/benefit relationship of these units for over 30 years, as well as 700 units of its predecessor, the DSP Logger MX300.

This new unit has a 640 x 480 resolution screen, 5" color display and High Contrast, to better handle direct sun light, It also has a sturdy keyboard with easy to find keys and four dedicated function keys in each mode of operation.

Now you can measure spectrum from 400 up to 25,600 lines and wave forms from 512 up to 16,384 samples; capturing acceleration, velocity, displacement and envelope, both AC and DC.

Main 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

Vibration Analyzer

Preconfigured Spectral Measurement

- Velocity
- Displacement
- Acceleration
- Envelope

Configurable Spectrum Measurements

- With Accelerometers
- With proximeters
- With Velocimeters
- AC

Triaxial Spectral Measurements

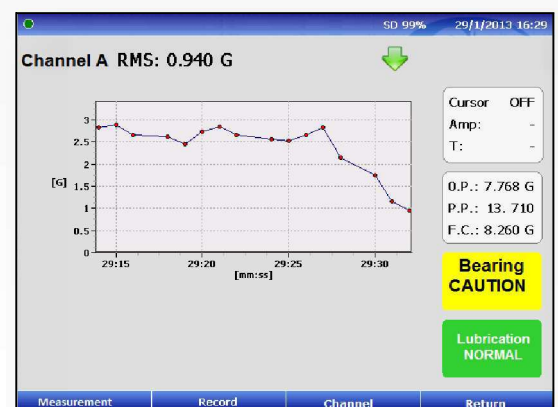
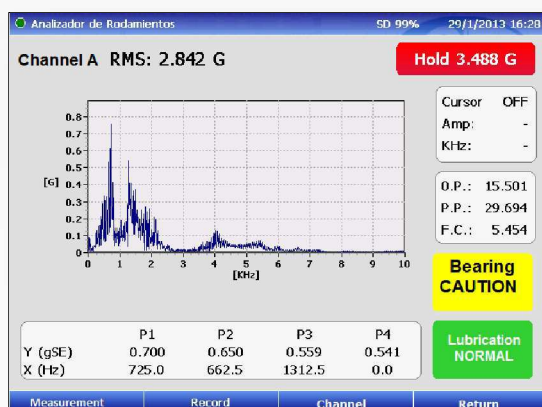
Dual Channel Scalar Measurements

Scalar Multivariable Measurement

Tachometer RPM Measurement

Mechanical Status Tools

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



Main Applications:

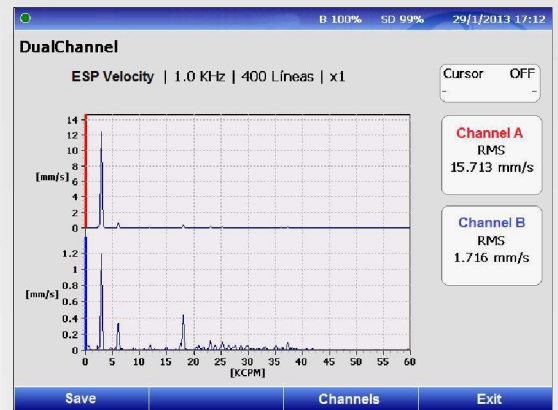
Data Collector

- Multilocation polling
- Route-equipment-point-measurement
- Route visualization tools
- Route regeneration of unmeasured points
- Route history, including last 5 captures
- Mechanical status tools
- Equipment diagram
- Equipment pictures
- Automated function: quick or detailed
- Alarm system in spectrum or scalar
- Manual measurement status system



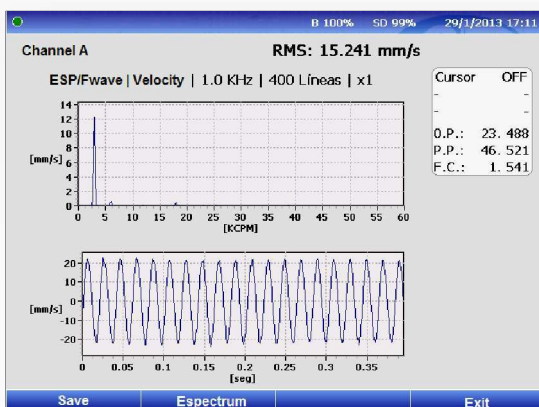
Machine Balancing

- Single Plane Balancing
- Dual Plane Balancing
- No-Phase Balancing
- Dual Channel spectrum
- Calculations to add or subtract weight
- Final Correction Report
- Report Generator



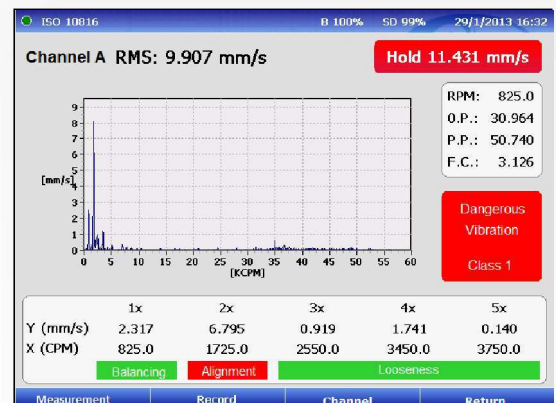
Vibration Phase Analysis

- Relative Phase Measurement
- Absolute Phase Measurement
- Samples to measure and position sensors
- Includes:
 - Polar Graph
 - Phase Trend
 - Dual Channel WaveForm



Expert Analysis

- Multichannel Spectrum Measurement
- Electrical Rotor Analysis
- Boide Graphics
- Bump Test
- Orbital Function with or without filtering
- Configurable Spectrum cascade
- Crossreference Spectrum
- Programable Condition Monitor Function
- Human Body vibration measurement



Technical Specifications

Input channels: six

Input sources: Acceleration, AC/DC sensors

Amplitude accuracy: 1%

Resolution: Programmable 400, 800, 1600, 3200, 6400, or 25600 lines

Measurement windows: Hanning, Flat top, Rectangular

Preprocessing gSE and ESP enveloping (demodulator) with four selectable input filters for enhanced bearing and gear mesh fault detection

Digital Integration:

Velocity and Displacement, with high-pass filters
Programmable 1%, 5% and 10% of Fmax filters:

1.25... 2.5 KHz

2.5..... 5 KHz

510 KHz

Frequency range: 0.2Hz to 20KHz

Low-frequency cutoff 0.18...70 Hz

Memory: Internal RAM 256 MB

MicroSD: 8GB

Trigger modes: Trigger: External or Laser Tach

Trigger Level: Fixed or Automatic

Ext Trig Slope: Amplitude and Slope

USB Communication

Data Displays six-channel spectrum, six-channel time, phase table, orbit, process, cross channel phase, dual spectrum, time plots, and two tri-axial plots

Averaging Programmable from 1...4096

Spectral, synchronous time, peak hold, and continuous

Display: LCD, backlit color

VGA (640 x 480) 5.7" viewable area

Casing: IP 65/DIN EN 60529 Aluminium

Input connectors:

Connector A and Connector B are 5-pin AMPHENOL

Connector A: Channel 1, 3 and 5

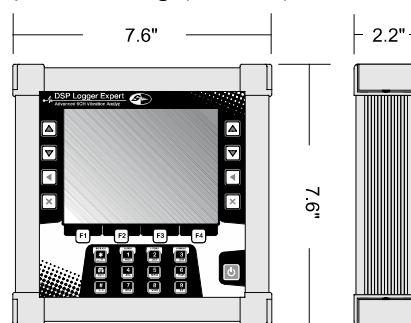
Connector B: Channel 2, 4 and 6

Microprocessor nvidia dual core de 1Ghz

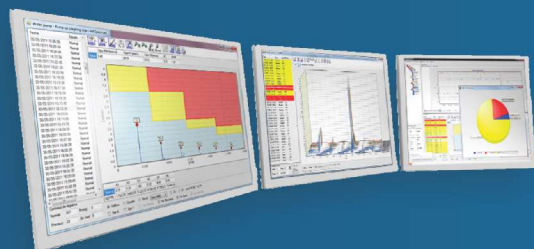
DSP processor Analog Devices

Battery: Rechargeable lithium ion

Weight, approx. 715 g (1.52 lb)



DPS Machinery Control analysis and control system



The DPS Machinery Control software is designed for the measurements organization and visualization in a simple manner determining the state of each machine.

It holds a vast quantity of diagnostic tools that ensures the early detection of mechanical and electrical flaws.

All our field meters and analyzers, are completely compatible with this software, allowing to operate all measurements via a single database.

Compatible equipments

