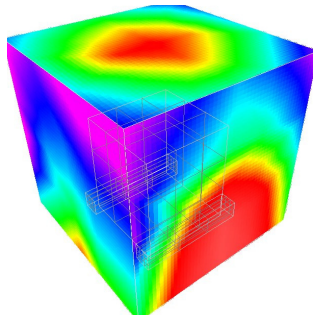


OROS Sound Intensity



Main Features

- Real time sound intensity spectrum
- Narrow band, octave, and 1/3 octave representation
- Sound power measurement: guided procedure following ISO9614-I&II
- Field criteria and indicators calculation
- Easy and flexible generation of multiple Surfaces
- Classical exploded 2D view & advanced 3D graphics sound mapping
- Intensity, Pressure selectable by segments
- Multi-frequency views
- Isolevel contours and picture overlay
- Automatic sound power Report
- Calibration module for level, phase correction and pressure-residual intensity index.
- Transducer Database
- Probe remote control Management

Specifications

- Frequency Range: up to 10 kHz
- 1/3 Octave, Octave and Narrowband spectrum
- Multiple-spacer management

Introduction

The OROS sound intensity software is a tool for noise emission distribution analysis and sound power determination. Measurements can be made in laboratory or in noisy environments. The OROS sound intensity is A.I.D.A: Acoustic Intensity Data and Analysis. With the OROS sound intensity, the measurement and the visualization of the distribution of the sound intensity are realized over one or several measurement surfaces surrounding the noise sources under test. The results obtained can be used for sound source localization and sound power calculation according to ISO9614.

Description

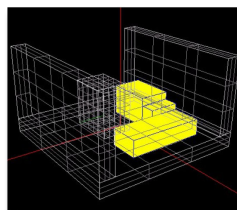
Real-Time Sound Intensity

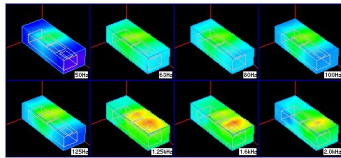
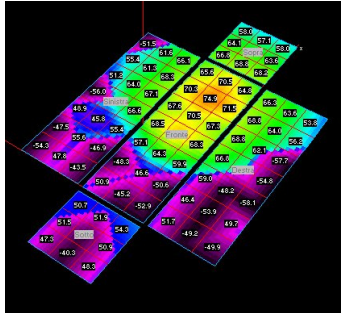
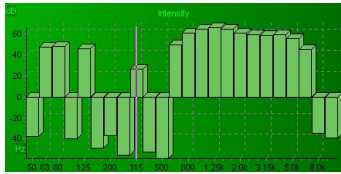
The software is based on the OROS analyzer range making it a full packaged sound intensity system. When used in combination with a standard sound intensity probe, the system displays in real-time the sound pressure spectrum, and the sound intensity spectrum.



Results 2D and 3D displays

As standard it is always possible to visualize results in a 2D fashion. In the industry, many sources require more flexibility than a simple parallelepipedic surface. For this reason the OROS sound intensity features an extended 3D representation of the map of interpolated results on the measurement grid.





These geometric surfaces can be entirely designed within the software in a user-friendly way. Several 3D shapes can be visualized in one shot as well as their environment. In addition the 3D representation allows the spectrum representation (intensity, pressure, and reactivity) by selecting the measurement point with the mouse. A 3D map is displayed for a chosen frequency. In order to complete these facilities, the multi-frequency view tool can show the maps of the selected frequencies in one shot: the user can check the source behavior at several frequencies simultaneously. Among other representations available, it is possible to display the repartition of the isolevel contours and overlay them with a picture of the measured object.

Sound Power Measurement according to ISO9614

Besides the sound intensity determination, the second major use of the OROS sound intensity is the sound power determination. Both ISO9614 part I and part II are covered. The user is guided through the standard procedure with the use of a comprehensive flowchart. During this procedure, the field indicators and criteria are checked by the software. Whenever one of them does not satisfy the standard, the software assists the user through the successive measurements and improvements needed to meet the standards requirements. Then, a table gives a comprehensive insight of the field indicators computed for each of the surfaces included in the computations. The procedure is guided but a more flexible approach is also possible: it is always possible to set up the acquisition procedure as a sequence of actions or as a selectable access to the different measurement points.

Ordering Information

ORNVS-SI-LOC

3D noise localization software based on sound intensity.

ORNVS-SI-POW

Sound Power determination software based on sound intensity.

ORNVS-SI-POWLOC

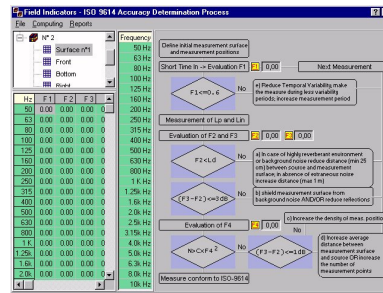
Sound power determination and 3D noise localization software based on sound intensity.

ORNVS-SI-POWL-uL

Upgrade from ORNVS-SI-LOC to ORNVS-SI-POWLOC

ORNVS-SI-POWL-uP

Upgrade from ORNVS-SI-POW to ORNVS-SI-POWLOC



Final results & monitoring

The software assists the user until the final stage issuing the final sound power result. Finally, a report can be automatically generated and printed. The sound power levels are calculated for each surface and can be displayed also for the overall measurement surface with or without A-weighting. In addition, it is also possible to exclude some frequencies from the calculation procedure selecting them from a list.

Applications

- Sound power measurements
- Noise source localization
- Field measurements
- Noisy environments
- Sound pressure 3D map
- Sound intensity 3D map
- Multiple sources

