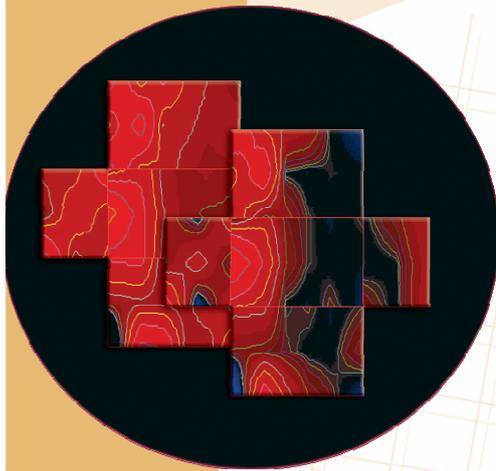


Sound Power fitting ISO 9614 Part 1 & 2



First introduced in 1996 with a dedicated and powerful software 01dB-Metravib' solution for Sound Power determination using Sound Intensity has been very successful in Lab and field environment.

Now labelled **PRO-280**, this system integrates the ISO-9614 standard and is made available as a dedicated package supporting Symphonie platform to meet customers' needs for "handy" operation in field or laboratory conditions:

- Very flexible
- Most accurate
- Full control of ISO 9614 check parameters



Pro-280

Key Features...

Easy to operate and flexible

- ▶ User guiding for a total support in Sound Power determination process
- ▶ Portable and Battery Operated
- ▶ Pre-formatted Results Data table for immediate reporting
- ▶ ISO 9614 parameters check and errors handling with on-line tutorials and suggestions
- ▶ Pressure and Intensity mapping
- ▶ Calibration in amplitude and phase allowing use of different kind of Intensity probe types

Options

- ▶ The PRO-280 package of hardware and software integrates the definition and execution of the power measurement and the related quantities such as:
 - Calibration check by inverting the probe
 - Stationarity check of the sound field for the point per point method
 - Integrates the dynamic calculation (during measurement) of criteria that enables validation of measurement results
- ▶ Sound intensity calibrator and calibration software are proposed as options
- ▶ PRO-280 is **robot operable** for increased efficiency on systematic evaluation of sound power characteristics of various test devices

Most suitable for:

- Automotive
- Motorbikes
- Aeronautics
- Railway
- Ships
- Space
- Construction Machines

Building industry
Ground Vibrations
Environmental Data

Electric appliances/IT
Household appliances

Medical
Electro-testing
Encephalography
Electrocardiography
Electromyography

P-280 Technical Specifications

Features	P-280	Features	P-280
Signal input	<ul style="list-style-type: none"> 1 MOhms DC or AC (da 0,3 to 10 Hz +/- 10 %); LEMO 7 pin Microphone Preamplifier (28V-10mA), Polarization Voltage (0-200 V), IEPE* (4.3 mA), Direct Input Auxiliary Input 20 V p-p, Overload protection < 0.1° with same gain on both channels, < 0.5° if different gain Hi-Pass filter (0.3/10 Hz) 	Intensity Calibrator	<ul style="list-style-type: none"> BNC socket 1 V RMS 50 Hz - 6.3 kHz >27 dB (normal mic. spacing 25 mm) < 0.1 dB + 5 °C to + 40 °C 42.2 x 50.3 x 60mm 515 g 2 x ¼" microphone adapters
A/D Converter	<ul style="list-style-type: none"> 18 bits sigma/delta. 51.2 kHz max. Butterworth, 120dB/octave Automatic > 90dB up to 65 dB in 1 dB step 	Intensity Probe	<ul style="list-style-type: none"> Type 40AI 13.2 mm 200 V IEC 60651 Type 0 Type 26AA - 4-pin LEMO 25 mV/Pa IEC 1043 Class 1 21 - 152 dB re. 20µPa
Dimensions	<ul style="list-style-type: none"> 85 x 35 x 220 mm 500 g 	Digital I/O	<ul style="list-style-type: none"> 2 inputs and 2 outputs Processors: TMS320C31 + TMS320C203 Performance: 100 MFLOPS Precision: 32 Bits SRAM: 128K x 32 bits RAM: 16Kb double access Connector: Mini Dyn (PS/2)
Analog Output	<ul style="list-style-type: none"> 1-2 channels output synchronized with acquisition From 100 Hz to 51.2 kHz LEMO 4 pin 18 bits 5 V p-p Phantom referenced 	PC and Operating System	<ul style="list-style-type: none"> MS Windows XP PRO™ PII or higher, 600 MHz or higher 512 Mb or higher PC Card Type II, RS232 or USB converter
Power supply	<ul style="list-style-type: none"> PC powered PCMCIA card 		

Features	dBFA and ISO 9614 Software
dBFA:	<ul style="list-style-type: none"> Software to perform as Recorder - Real Time Analyzer - Post-Processing: simultaneous signal recording and real-time multiprocessing and monitoring, post processing analysis (Average 1/n octave, 1/n octave vs. time, Average FFT, FFT vs. Time, FRF...), calculation on spectra and signals, white/pink/sine/sweep sine generator (if available on hardware), color spectrogram and waterfall, tacho acquisition, signal edition, import of Teac/Sony files...
dBFA Intensity:	<ul style="list-style-type: none"> Software option (included) for Real Time intensity calculations
dBFA Iso 9614:	<ul style="list-style-type: none"> Software option (included) to fulfill ISO9614: Real Time Intensity and Sound Power
Iso 9614 test session :	<ul style="list-style-type: none"> Total controls of the measurement according to the selected method and the complete use of the results according to the standard.
ISO 9614 Criteria:	<ul style="list-style-type: none"> Calculation of specific criteria and comparison with ISO 9614 limits set in the standard according to the chosen precision class.
Results and Plotting:	<ul style="list-style-type: none"> Plot results as Intensity and/or Pressure color maps, Data table pre-formatted to match ISO 9614 requirements, listing by point, plot and listing of results on a section of the area, plotting of the noise map and iso-curves.

Ordering Information:

SSP3002000: Symphonie 2 channels inputs Lemo 7 - 2 channels outputs - PCCARD interface
SFA4003000: Software dBFA Recorder-Analyzer-PostProcessingSFA4011000Real Time intensity calculations
SFA4036000: dBFA ISO9614 - Real Time Intensity and Sound Power ISO9614
CMI3007000: 50AI-B Intensity Probe complete with handle, microphones, spacers, preamplifiers
ACA3018000: AC0002 Adaptor Cable for 50AI-B for use with Symphonie
AA0010: 10m Extension cable Lemo 2B 12pin- Lemo 2B 12pin for 50AI-B
Options: **CAL3003000:** 51AB Sound Intensity Calibrator
SFA4019000: dBSOND32: intensity calibration software, integrated white noise generator
A52CDP983-1M: Output cable for Symphonie Lemo 4p - BNC

* IEPE: Integrated PiezoElectric Electronic

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The presented characteristics are subject to change without notice. Rev:03/2007

