

SOUND MEASURING EQUIPMENT

C Industrial design Rugged casing, long life

Class 1, Class 2, Complete Calibration Facilities

Worldwide support Dealer network all around the world

Proven quality According to all regulations



MEASURING HAS NEVER BEEN **EASIER!**



Noise at work assessment

The aim of the noise risk assessment is to help deciding what is needed to do to ensure the health and safety of employees who are exposed to noise in order to avoid hearing loss problems.

- Reliable noise measurements in workplaces
- Calibrated equipment to comply with laws
- Determination of noise exposure according to ISO 9612.



Building Acoustics

Quality of modern dwellings is related to sound insulation. Unwanted noises propagate through the air (airborne noise) or mechanically through the building structure (impact noise). Noise sources can be both external to the building (traffic, human activities) and internal (tenants' activities, technical installations). The design of the building according to the requirements from an acoustic point of view is highly required today.

- Airborne sound insulation according to ISO 16283-1
- Impact noise according to ISO 16283-2
- Façade noise insulation according to ISO 16283-3
- Service equipment noise



Environmental noise

Urban areas are a concentration of activities that generate noise: road traffic, railways, airports, industrial plants and leisure activities. All these noise sources need to be characterized in the best way in order to assess compliance with the limits imposed by current regulations.

- Class 1 accurate and certified measurements
- Assessment of environmental noise according to ISO 1996
- Sources analysis and identification
- Remote management of noise data
- Compliance with EU Directive 2002/49/EC







SPECIFICATIONS	D2110L M, SNR, HML √ √ √ √
overall levels measurement of a	$\begin{array}{c} \sqrt{}\\ \sqrt{}\\ \sqrt{}\\ \sqrt{}\\ \sqrt{}\end{array}$
Second problemoverall levels measurement $$ $$ Environment al NoiseImpulsive components $\sqrt{*}$ $$ Impulsive components $\sqrt{*}$ $$	√ √ √
Visit $\sqrt{2}$ Environment al Noiseroad traffic noise $\sqrt{*}$ $\sqrt{2}$ automatic detection of impulsive components $\sqrt{*}$ $\sqrt{2}$	√ √
Environment al Noise rail and airport traffic noise $\sqrt{*}$ $$ automatic detection of impulsive components $\sqrt{*}$ $$	V
automatic detection $\sqrt{*}$	
or impusive components	√*
automatic detection of tonal components	
Building Acoustic $$	√
Standards IEC 61672 IEC 61672 - IEC 61260 IEC 616	672 - IEC 61260
Accuracy Class 1 (HD2010UC.k1) Class 1 (HD2010UC/A.k1) Class 2 (HD2010UC.k2) Class 2 (HD2010UC/A.k2)	Class 1
	2", 50mV/Pa, ield, 0V, WS2F
Operation Dynamic Range 30-143 dB Peak 30-143 dB Peak 23-1	140 dB Peak
Linearity Range 80dB 80dB	110dB
Acoustic Parameters $\begin{array}{c} L_{p'} \ L^{eq}, \ L_{leq'} \ SEL, \ L_{Ep'} \ d, \ L_{max'} \qquad L_{p'} \ L^{eq}, \ L_{leq'} \ SEL, \ L_{p'} \ d, \ L_{max'} \qquad L_{p'} \ L^{eq}, \ L_{leq'} \ SEL, \ L_{p'} \ d, \ L_{max'} \qquad L_{p'} \ L^{eq}, \ L_{leq'} \ SEL, \ L_{p'} \ d, \ L_{max'} \qquad L_{p'} \ L^{eq}, \ L_{leq'} \ SEL, \ L_{p'} \ d, \ L_{max'} \qquad L_{p'} \ L^{eq}, \ L_{leq'} \ SEL, \ L_{p'} \ d, \ L_{max'} \qquad L_{p'} \ L^{eq}, \ L_{leq'} \ SEL, \ L_{p'} \ d, \ L_{max'} \qquad L_{p'} \ L^{eq}, \ L_{leq'} \ SEL, \ L_{p'} \ d, \ L_{max'} \qquad L_{p'} \ L^{eq}, \ L_{leq'} \ SEL, \ L_{p'} \ d, \ L_{max'} \qquad L_{p'} \ L^{eq}, \ L_{leq'} \ SEL, \ L_{p'} \ d, \ L_{max'} \qquad L_{p'} \ L^{eq}, \ L_{leq'} \ SEL, \ L_{p'} \ d, \ L_{max'} \qquad L_{p'} \ L^{eq}, \ L_{p'} \ d, \ L_{max'} \qquad L_{p'} \ L^{eq}, \ L_{p'} \ d, \ L_{max'} \qquad L_{p'} \ L^{eq}, \ L_{p'} \ d, $	_{eq} , SEL, L _{EP} , d, L _{max} , L _{pk} , Dose, L _n
	taneous A, C, Z nd C for Lpk)
Temporal Weighting Simultaneous Fast, Slow, Slow, Slow, Slow, <td>neous Fast, Slow, Impulse</td>	neous Fast, Slow, Impulse
Spectrum Analysis 1/1 oct, 1/3 oct * 1/1 (doppie)	oct, 1/3 oct o banco), FFT *
Statistical Analysis	els distribution, tive distribution*
Reverberation Time (RT60) option	option
Memory from 4MB to 2GB * from 4MB to 2GB * from 4	8MB to 2GB *
Datalogging √(option) √	\checkmark
C O 1/1 octave √	\checkmark
te 1/3 octave √(option) v	/(option)
	(option)
	(option)
ISO 17025 Calibration Certificate √ (option) √ (option)	\checkmark
Software Noise Studio Noise Studio No	pise Studio
Workers Protection Module NS1 NS1	NS1
Building Acoustic Module NS3	NS3
Environmental Noise Module NS5, NS2A NS5, NS2A N	IS5, NS2A

* Specific options may be required - contact our sales department for more information.

ISO 17025 ELECTRO ACOUSTIC LABORATORY





LAT Nº 124

Temperature - Humidity - Pressure - Air speed Photometry/Radiometry - Acoustics

Since 2001, our Laboratory of Electro Acoustic measurements has been providing calibration of microphones, sound level meters, sound calibrators and electroacoustic filters. The Laboratory features multiple test benches to accommodate the calibration of customer instruments according to the following standards:

- IEC 61672 Electroacoustics
- Sound level meters
- IEC 60942 Electroacoustics
- Sound Calibrators
- IEC 61094-5 Electroacoustics
- Measurement microphones Part 5: Methods for pressure calibration of working standard microphones by comparison
- IEC 61260 Electroacoustics

• Octave-band and fractional-octave-band filters Traceability of measurement results is assured by the periodic calibration of our reference standards. Our services are provided with ACCREDIA certifications.

Our laboratory is accredited for the following quantities:

- Calibrators
 - Pistonphones
 - Acoustic Calibrators
 - Multi-frequency Calibrators
- Sound Level Meters
- Filters
 - octave band
 - one-third octave band
- Microphones







The qualitative level of our instruments is the result of a continuous evolving of the product itself. We reserve the right to perform modifications and corrections at any time without notice. We look forward to your enquiry: Phone: +39 049 8977150 Email: info@deltaohm.com

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