

DB 300/2 Sound level meter

Integrating-averaging with storage function



Class 2

The DB300/2 sound level meter extends the range of classical and integrator sound level meters.

It respects the most recent international standards and brings to the user a high comfort in use.

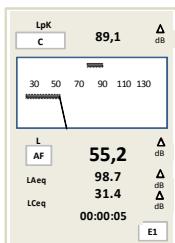
From the simple sound level measurement to the frequency analysis in real time, DB300/2 covers the most applications in the finding of solutions to get better the noise environment

DB300/2 stores the measurement datasets that can be then transferred in a computer with the LDB23 software.

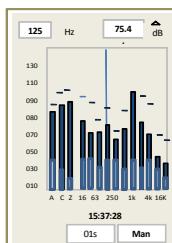
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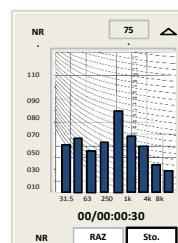
Main measured values



- Weighted noise level : L_{XY}
- Equivalent continuous level : L_{Xeq}
- Peak pressure level : L_{Upk}
- Noise exposure level : L_{XE}



Real time analyser by octave bands –
31.5 Hz to 8 kHz



Values and graphic representation of the NR comfort criteria

I/O interface

- Detection of sensitive levels for alarm activation
- DC analogue output : 0-10 V : 0 -137 dB
- Ordered measurement start

Audio recordings on threshold

- Audio recording of audio files on detection of L_{Xeq} or L_{Upk} levels

Other information

- Maximum and minimum values, peak values
- Statistical distribution of the measured values : L₀₁ – L₁₀ – L₅₀ – L₉₀ – L₉₅

Business application

- Environment
- Monitoring and emergencies
- Industry
- Noise spectrum 1/1 octave – optional : 1/3 octave
- Noise of machines and NR evaluation curves
- Process monitoring, conformity check
- Noise at workstation

Data visualization

DB300/2 is supplied with the LDB23 software allowing data visualization and measurement report printing.



■ Technical features

Standards

Sound level meter : NF EN 61672-1 (2002) – NF EN 60651 (1979) – NF EN 60804 (2000) – CEI 61260

CE conformity : EN 61010 – EN 61000 generic and as per product standard

Metrology

Accuracy : Class 2 - NF EN 61672-1

Microphone type : Electret – ½" - Sensibility : 45 mV/Pa

Measuring type : Free field

Measurement dynamic : Lp / Leq : 107 dB - Lpk : 57 dB

Single dynamic range Lp and Leq / Lpk : 30-137 dBA / 35-137 dBC (Z) / 83-140 dBC (Z) – Leq : 25-137dB (filters by octave bands 31.5 Hz-8 kHz)

X frequency weightings : A – C – Z

Multi-spectrum frequency analysis : Real time filters by octave bands : 31.5 Hz // 8 kHz – 1/3 octave optional bands : 25 Hz // 10 kHz

Y frequency weightings : F (fast) – S (slow) – I (impulse) – U (peak)

Logging time for short Leq (DI) : 1/16s – 1/8s – 1/4s – 1/2s – 1s to 60 s (step of 1 s)

Measured values : LXY – LXYmax – LXYmin - LXeq,T –

LXeq,DI – LXE – LXeq,DImax – LXeq,DImin

Statistic indices LNX on LAeq and LCeq samples : L01 – L10 – L50 – L90 – L95 – resolution 1 dB. Others on LDB23 software.

Simultaneous measured values : All according to LXY conventional mode or LXeq integrator mode.

Detection and percentage of overload : Graphic alarm and calculation of percentage during the storage.

Sound level meter

Preamplifier	removable – extensions of 3 – 5 – 10 m on request
Screen	graphical display 240 x 160 pixels – LCD monochrome 16 levels – digital and analogue display – 3D effect on display
Keypad	8 sensitive keys
Clock	permanent, saved by internal battery – accuracy better than 0.005%
Memory module	removable Micro SD card 2Go
Environment	from -10 °C to +50 °C
Humidity	from 0 to 90% RH
Size (L x l x e)	270 x 70 x 40 mm
Weight (batteries included)	355 gr
Fixing	Insert at rear for fixing on tripod

Operating

Measurement modes : conventional and start/stop integrator – integrating analyser with storage – NR comfort criteria – S1 + S2 calculator

Storage and measurement capacity :

- Lp-Leq start/stop mode : unlimited

- Leq with storage mode : according to the elementary logging time (from 1/16e s to 60s)

- Memory capacity with frequency analysis by full octave bands :
• Base Leq 1 s : 135 days to share from 1 to 999 periods.
• Base Leq 1/16° s : 8 days to share from 1 to 999 periods.

Audi recordings on threshold

Recording on detection of LXeq or LCpk programmable levels – Sampling : 12 kHz – 16 bits : total duration of recording : 45 mn – file format : *.wav

I/O interface :

DC output : 0-10 V / 0-137 dB

Output for alarm activation : TTL level 3.3 V

Measurement start by electrical order : 0-5 V DC max



Measurement launching

By keypad or I/O mode

Power supply – Autonomy

Rechargeable Li-Ion battery : minimum autonomy : 24 hours at 20 °C – 3 AA alkaline batteries can be also used (the autonomy is reduced) – mains adapter.

Guarantee : 2 years



Supplied with...

- Li-Ion battery – 3 x AA batteries coupling device – Windscreen
- Transport case
- USB charger - adapter
- Calibration certificate
- USB transfer cable
- User manual
- LDB23 software

Optional accessories

- Extensions for preamplifier : 3 – 5 – 10 m
- Tripod
- Acoustic calibrator class 1 (NF EN 60942:2003) type : **CAL300**
- Jack cables for I/O interface
- **LDB300** : specific software for the industry, environment for elaborated data processing