

## INTEGRATING SOUND LEVEL METER



**HIGHLIGHTS:**

- Acoustics standard IEC61672, IEC 61260, IEC61094-4

**HD-2010-UC-1**

Item No. 700060

integrating sound level meter

**GENERAL:**

The HD-2010-UC-1 is a portable, integrating sound level meter for performing statistical analysis. During the development of the device, the focus was on combining the simplest possible operation with low costs. In addition, special care was taken to ensure that the device can be adjusted and set. The user can update the firmware directly using the noise studio program supplied with the device. The HD-2010-UC-1 has a graphic display with backlighting.

**APPLICATIONS:**

- Assessment of the ambient noise level
- Optional "extended measurement data logging"
- Optional recording and analysis of sound events
- Statistical analysis with calculation of 3 percentile levels and optional comprehensive statistical analysis
- Noise monitoring (option "Extended measurement data acquisition" required)
- Detection of impulsive noises
- Measurements at workplaces (analysis of noise and vibration exposure)
- Selection of personal protective equipment (hearing protection, SNR and HML method)
- Control of the production quality
- Measurement of machine noise, sound power measurements
- Noise emissions from vehicles

With the sound level meter HD-2010-UC-1, the sound pressure level can be measured by programming 3 parameters, whereby the frequency weighting and the time constants can be freely selected. The measured sound levels can be recorded in a large memory and transferred to a PC using the Noise Studio software package supplied.

The class 1 sound level meter HD-2010-UC-1 with the option "Extended measurement data acquisition" is suitable for noise monitoring and acoustic mapping as well as with the optional acquisition and analysis of sound events for the evaluation of the acoustic climate. When measuring traffic noise near airports, railways and roads, the sound level meter can be used as a multi-parameter sound recorder, which also offers static analysis functions.

**TECHNICAL SPECIFICATIONS:**

½ inch microphone:	UC52 free field, pre-polarized, capacitor type
Dynamic range:	30 dBA..143 dB peak
Linearity range:	80 dB
Acoustic parameters:	Spl, L <sub>eq</sub> , L <sub>eq</sub> 1, SEL, L <sub>EP,d</sub> , L <sub>max</sub> , L <sub>min</sub> , L <sub>pk</sub> , Dose, L <sub>n</sub>
Frequency weightings:	simultaneous A, C, Z (only C and Z for L <sub>pk</sub> )
Time ratings:	simultaneously FAST, SLOW, IMPULSE
Integration:	from 1 s..99 h with delete function (back-erase)
Statistical analysis:	Display of up to 3 percentile levels, from L <sub>1</sub> to L <sub>99</sub> Probability distribution and percentile level calculation from L <sub>1</sub> to L <sub>99</sub> • Parameters: L <sub>EP</sub> , L <sub>eq</sub> , L <sub>pk</sub> weighted A, C or Z (only C or Z for L <sub>pk</sub> ) • Measurement frequency: 8 measurements/s • Classification: classes of 0.5 dB
Display:	Graphic LCD display with backlight 128 x 64 • 3 parameters in numeric format
Storage:	• 4 MB internal, memory for more than 500 data records.
Input Output:	• RS232 serial and USB interfaces • AC output (LINE) • DC output

<b>PC programs:</b>	Noise Studio (supplied with the device): PC interface for data download, setup and device management. Licensed software modules must be activated using a hardware key. • NS4 monitor module. PC-based real-time acquisition. Synchronized audio recording. Remote monitoring and data collection. Remote control also via modem. The program enables the programming of measurements and calibrations with timers and event-controlled audio recordings with programmable trigger levels.
<b>Operating conditions:</b>	• Working temperature -10 .. + 50 °C, 25..90 % RH, (no condensate), 65..108 kPa. Degree of protection: IP64
<b>Power supply:</b>	• 4 alkaline batteries or rechargeable NiMH batteries, type AA or external power supply 9..12 V DC or 300 mA
<b>Dimensions:</b>	445 x 100 x 50 mm with preamplifier (H x W x D)
<b>Scope of delivery:</b>	Class 1 sound level meter HD-2010-UC-1, preamplifier HD2010PNE2, pre-polarized free field microphone UC52/1, windshield, USB connection cable. Noise Studio PC software, transport case and printed operating instructions. Supplied with an individual ACCREDIA calibration certificate, in accordance with IEC 61672.

**NECESSARY ACCESSORIES:**

**HD-2020**

Item No. 700062

Class 1 sound calibrator according to IEC 60942: 2003

**ACCESSORIES:**

**HD 2110-USB**

Item No. 700038

Serial connection cable, PC connection: USB 2.0 type A

**SWD-10**

Item No. 700039

Power in supply plug for HD portable instruments, 100 ... 240 V AC

**CPA / 10**

Item No. 700061

Microphone extension cable 10 m

**HD 40.1**

Item No. 700056

Portable thermal printer incl. SWD-10 power supply and 5 rolls of paper

**HD 2110-RS**

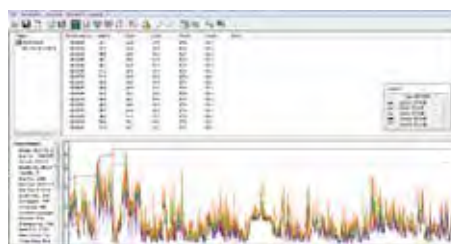
Item No. 700057

Serial connection cable, Printer connection: 9-pole Sub-D socket

**RCT**

Item No. 475423

Spare paper, 4 rolls of thermal paper, 57 mm wide



Noise Studio: NS4 "monitoring" module; PC-based sound recording with synchronized audio recording (for later playback).

**Noise Studio NS4**

Item No. 475424

NS4 monitor module (demo version included in delivery HD2010)

**GENERAL:**

With this software module it is possible to control the sound level meter remotely via PC.

The main features are:

- Real-time display of the recorded data in graphical and tabular form
- Possibility to remotely connect to the sound level meter via modem
- Acquisition of sound level data directly in the mass storage of the PC (monitoring function)
- Management of diagnostic and calibration functions
- Automatic acquisition and monitoring programs
- Possibility of capturing synchronized audio recordings with the sound level measurements by using simple trigger functions

**IMPORTANT INFORMATION:**  
THE DEVICE IS SHIPPED WITH A CALIBRATION CERTIFICATE.  
CUSTOMER NAME MUST BE SPECIFIED WHEN ORDERING.