

CEL246 Data Logging Integrating Sound Level Meter



Features

- Logs the sound level every 1 second
- Lightweight but rugged case
- 2 year warranty
- Calibration certificate included

Applications

- USA regulations (OSHA) occupational noise surveys - Lavg
- Canadian, European and other noise at work regulations - Leq

Overview

The CEL246 is a data logging integrating sound level meter that meets the international standards to Type 2 / Class 2, as required by many noise measurement standards. It measures and stores the Lavg and Leq along with the Fast or Slow sound level and comes with both A and C frequency weightings.

Standards

- ANSI S1.4, ANSI S1.43 Type 2
- IEC 60651 and IEC 60804 Type 2
- IEC 61672 Class 2

The CEL246 meets the strict demands of the international sound level meter standards and is provided with a Calibration Certificate at no extra cost, so you can make your noise measurements with confidence. This is most important when using a meter in a hearing protection and conservation program.

Outputs

An AC output and optional DC output mean this meter can be connected to a level recorder, PC equipped with an A/D converter or integrated with another data logging system.

Integrating - Averaging Sound Level Meter

A standard (non integrating) sound level meter gives an instantaneous reading of the sound level. In an environment where the sound levels are changing continuously, as most are, it can be very difficult to average this by eye. The solution is to use an Integrating sound level meter such as the CEL246, which will give you a reading of Lavg or Leq, depending on which regulations are being followed.

Due to the risk of underestimating the average sound level, especially if you fail to take into account the logarithmic nature of the decibel, many regulations advise or even demand the use of an Integrating Sound Level Meter.

Digital Technology and Graphical Display

The graphical display gives the option of viewing the sound level as a simple number (shown to the left) or as a graph, clearly showing the variation of noise over time (see main image).

Data Logging and Download Software

The CEL246 stores the sound level to internal memory at a rate that can be set from 1 second to 10 seconds. It also stores a summary of the measurement, including start time, date, measurement duration, maximum sound level, Lavg and Leq.

Free software is included with the meter to download the measurements and transfer into Excel or similar spreadsheet. For more information about additional software please visit the CEL246 Software page.

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Specifications

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The CEL242 is a "general purpose" sound level meter, and so meets the international standards to Type 2 or Class 2. For any noise measurement that requires accurate, repeatable and comparable results, especially when used for hearing protection or other legal purposes, it is essential to use one that meets these standards.

Sound Level Meter Standards

- ANSI S1.4 Type 2
- IEC 60651 Type 2
- IEC 61672 Class 2

Technical Specification

| | |
|----------------------|---|
| Measurement ranges | 30 to 100 and 60 to 130 dB |
| Noise floor | |
| Time weightings | Fast, Slow, Impulse |
| Freq. weightings | A and C |
| Average Parameters | Leq and Lavg |
| Battery power | 3 x AA Alkaline for >35 hours operation |
| External power | 5V via USB Mini B socket |
| Dimensions | 72 x 212 x 31mm, 245g |
| Tripod mount | 1/4" socket |
| AC output | 0.85V RMS @ FSD "A" weighted |
| DC output | 0 to 3.3V DC for FSD on selected range (FOC option) |
| Operating conditions | RH: 5 to 90% (non condensing) Temperature: 0 to 40°C Atmos. pressure 65 to 108kPa |
| Storage | Over 4 days of time history Max 18 hours/ measurement |
| Time History Rate | From 1s to 10s programmable |

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Product shortcut:
<https://eu.noisemeters.com/p/cel246/>

Tech Support:
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