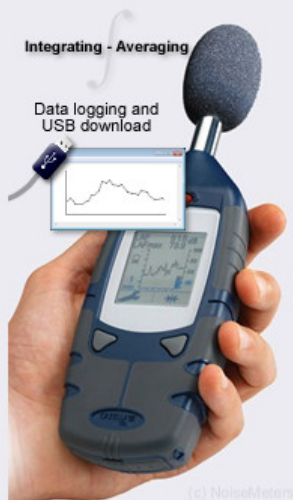# CEL246 Data Logging Integrating Sound Level Meter

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.

https://noisemeters.co.uk/p/cel246/

CEL246 Data Logging Integrating Sound Level Meter

Specifications

Specifications

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