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CEL632B Occupational Sound Level Meter with Octave Filters

Features

- Real-Time Octave Band Filters
- Data Logging with detailed Time History store
- Voice Notes and Audio Recording
- Automatic On/Off Timers
- Measures Lavg, TWA, Leq, Lepd, Min, Max, etc. Simultaneously
- Range: 20 to 140 dB(A)
- Data Markers

Applications

- Occupational Noise Measurements
- Hearing Protector Checks
- OSHA, MSHA, ACGIH, European and other occupational noise regulations

Overview

The CEL632B is a data logging sound level meter for detailed occupational noise surveys. It includes automatic timers and a Time History store, making it ideal for longer term and unattended measurements. The real-time octave band filters provide the measurements for a detailed check of hearing protector suitability.

The CEL632B Sound Level Meter measures all the parameters needed for a successful survey of workplace noise. The main parameters - Lavg, Leq, Peak, Lmax, Fast, Slow, etc. - are all measured simultaneously, so there is no need to choose before starting the measurement. With a single span from 20 to 140dB, there is also no need to choose the measurement range either.

Octave Band Filters

Real-time Octave Band Filters are included with this meter. These are particularly useful for assessing the suitability of hearing protectors for a given noise, especially when very high sound levels are present. The CEL632B measures in all bands at the same time as these are "real-time" filters.

Data Logging and Software

The CEL632B comes complete with data logging capability with measurements stored in the meter's large internal memory.

CasellaDrive

When connected to a Windows computer using the free CasellaDrive software, the meter acts like a memory stick (shows as a removable drive) so the measurements can be loaded into a spreadsheet or moved to your hard drive for long term storage. There is no need to buy special software.

Insight

Due to the large amount of data and the potential complexity of the measurements, we would recommend the use of the Insight software. It simplifies the process of downloading the measurements and stores them in a database, managed by person, place or process criteria. The Insight software is included with the sound level meter.

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Specifications

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The CEL632B data logging Integrating Sound Level Meter is available as either Type 1 or Type 2 as defined by the international sound level meter standards.

Sound Level Meter Standards

- ANSI S1.4 and ANSI S1.43 Type 1 or Type 2
- IEC 60651 and IEC 60804 Type 1 or Type 2
- IEC 61672 Class 1 or Class 2
- ANSI S1.11-2004 (Octave Band Filters)
- IEC 61260 Class 0 (Octave Band Filters)

Using a meter that meets these standards is essential for repeatable results and especially for any measurements that will be used for legal purposes.

Measurement range	20 to 140 dB (single range), 143 dB Peak
Display	320 x 240 pixel color TFT
Output to PC	USB Mini B
Batteries	3 x AA Alkaline (15 hours with backlight off)
External Power	9 to 14V DC at 250mA (2.1mm connector)
Dimensions	72 x 229 x 31mm, 295g 2.8" x 9.0" x 1.2". 10.4oz
Memory	1GB >2.5 years when logging set to 1 second
Timers	Duration 1s to 24h On/Off Timers: 6 sets with selectable times and repeat function.
Audio Recording	8kHz sampling, 60 hours recording 24kHz sampling, 10 hours recording

Measured Parameters

Frequency weightings	A, C and Z (simultaneous)
Time weightings	Fast, Slow and Impulse
Amplitude weightings	Q3, Q4 and Q5
Thresholds	70 to 90 dB (applies to Lavg)
Sound Level	LXY, LXYMax, LXYMin, LC-LA
Integrated	LXeq, Lavg, LAE
Peak	LXPeak
Takt Max	LTM3, LTM5, LXIeq
Time History Level 1	Periods of 1 minute to 1 hour
Time History Level 2	Periods of 1 second to 30 mins
Octave Band Params	LXY, LXYMax, LXeq
Octave Bands	16Hz to 16kHz in 11 bands

Where X is frequency weighting A, C or Zand
Y is time weighting Fast, Slow or Impulse