NoiseMeters
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Optimus Environmental and Noise at Work Meter with Octave Band Filters

Features

- Audio recording
- VoiceTag notes
- Single measurement range 20 to 140 dB
- Real-time Octave Band Filters
- Weatherproof Outdoor Kit available

Applications

- Environmental soise surveys
- Noise at work surveys
- Hearing protector assessments
- Mixed industrial and residential areas

Measure All, Miss Nothing

The Optimus range of meters measure all parameters at the same time, so there is no need to spend time figuring out if you have the meter set up correctly before starting a measurement.

The Optimus Environmental sound level meter is available as either Class 1 or Class 2 - the most common for environmental noise measurement and more accurate being Class 1. This meter has everything needed for a noise at work assessment too, including octave band filters for detailed analysis and hearing protector selection. For noise at work Class 2 is adequate.

Outdoor Kit Option

If the meter is to be left unattended in poor weather conditions then the optional Outdoor Kit should be used to offer protection against the elements.

The Outdoor Kit also includes a large rechargeable battery pack for at least seven days of monitoring.

Our Recommendation: CK171A Noise Measurement Kit

Most environmental noise surveys demand the use of a Class 1 Sound Level Meter that can make repeating measurements, such as the 5 minute LAeq and L90 (background noise).

For occupational and factory noise assessments, most regulations state that the lower cost Class 2 meter is adequate.

For measurement of both environmental and occupational noise we recommend the Class 1 option, as it is more than adequate for noise at work but also meets the higher demands of environmental use. The Class 1 microphone also has a lower noise floor, making it more suitable for measuring the typically lower sound levels associated with outdoor measurements.

For these reasons we recommend the **CK171A Noise Measurement Kit**, which includes a Calibrator as required by most regulations.

https://www.noisemeters.ie/product/cr/optimus/green/cr170a/

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Specifications

Standards	IEC 61672-1:2013 Class 1 or Class 2 IEC 61672-1:2002 Class 1 or Class 2 Group XIEC IEC 60651:2001 Type 1 I or Type 2 I IEC 60804:2000 Type 1 or Type 2 IEC 61252:1993 Personal Sound Exposure Meters ANSI S1.4 -1983 (R2006), ANSI S1.43 - 1997 (R2007) ANSI S1.25:1991 Octave Band Filters to IEC 61260 & ANSI S1.11-2004
Measurement Range	20dB to 140dB RMS Single Range
Noise Floor	<18dB(A) Class 1, <21dB(A) Class 2
Frequency Weightings	RMS & Peak : A, C, & Z Measured Simultaneously
Frequency Bands	10 x Octave Bands (31.5Hz to 16kHz, A, B & C variants)
Time Weightings	Fast, Slow & Impulse Measured Simultaneously
Memory	8GB with 32GB factory fit option
Time History	10ms, 62.5ms, 125ms, 250ms, 1/2 sec, 1 sec, 2 sec
VoiceTag Audio	Up to 30 seconds of audio notes with each measurement
Bluetooth	BLE compatible with Android and iOS devices. Mobile applications available from Google Play and the App Store
Audio Recording	Off, Manual, Threshold Triggered, Advanced Trigger Studio Quality - 96kHz/32bit WAV format High quality - 48kHz/24bit WAV format Standard quality - 16kHz/16bit WAV format Pre-Trigger function
Integrator Quick settings	EU, OSHA HC & OSHA NC, OSHA HC & ACGIH, MSHA HC & MSHA EC
Ln Statistical Values	14 independent statistical Ln values calculated from 1/16th LAF 7 preset to L1.0, L5.0, L10.0, L50.0, L90.0, L95.0 & L99.0
Measurement control	Manual, 1 min, 5 min, 10 min, 15 min,30 mins, 1 hour, Lden Automatic Synchronisation & Repeat Pause & Back Erase with user selectable duration

Dimensions	Size: 283mm x 65mm x 30mm Weight: 300gms/10oz
Power	Battery: 4 x AA Alkaline Typically 12 hours with Alkaline AA Typically 20 hours with Lithium AA Non-Rechargeable
Connections	USB Type B to PC AC & DC Output via ZL:174 (2 x Phono, 1m) Multi-pin IO for external power via ZL:171 cable (2.1mm socket) External Power: 5v-15v via MultiIO socket via ZL:171 cable (2.1mm socket)
Case	Material: High Impact ABS-PC with soft touch back & keypad
Tripod Mount	1/4" Whitworth socket
Environmental	Temperature: Operating -10°C to +50°C, Storage -20°C to +60°C Humidity: Up to 95% RH Non Condensing
Electromagnetic	IEC 61672-1:2002 & IEC 61672-2:2003 IEC 61672-1:2013 & IEC 61672-2:2013 Except where modified by EN 61000-6-1:2007 & EN 61000-6-1:2007
Language options	English, French, German, Spanish.
Displayed Functions	LXY, LXYMax, LXYMin, LXeq, LCPeak, LAPeak, LZPeak, LCeq-LAeq, LXE, LAIeq Graph of Short LAeq, LCPeak Integrators 2 & 3: TWA, Dose%, Est Dose% Real-Time 1:1 Octave Bands (Graphical & Numeric) Measurement Run Time 14 Statistical Ln values
Stored Functions	LXYMax & Time History of LXYMax LAeq, LCeq, LZeq, LCPeak, LZPeak, LAPeak, LAIeq Time History of LAeq, LCeq, LZeq, LCPeak, LZPeak, LAPeak, LAIeq Integrators 2 & 3: Lavg , TWA. %Dose Time History of Lavg 1:1 Octave Bands:Overall Leq & Leq Time History for each band Ln Values: 14 independent statistical values Audio recording during measurement where x=A ,C ,Z; y= F, S, I

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Product shortcut:
https://www.noisemeters.ie/product/cr/optimus/green/cr170a/

Tech Support:
https://support.noisemeters.com