NoiseMeters
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Optimus Environmental Noise Meter with 1/3 Octave Band Filters

Features

- Audio recording
- VoiceTag notes
- Single measurement range 20 to 140 dB
- Real-time 1/3 octave band filters
- Tonal noise detection to ISO 1996-2:2007
- Weatherproof Outdoor Kit available

Applications

- Environmental Noise Surveys
- Mixed industrial and residential areas
- Noise ordinance and community noise assessments
- Tonal noise assessment

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 also has everything needed for occupational noise measurement in line with the Noise at Work regulations, making it ideal for anybody involved in both environmental (outside the factory) and occupational (inside the factory) noise.

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

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 environmental noise measurement with 1/3 octave band filters we recommend order code **CK171C**. Most regulations demand the use of a suitable Calibrator, which is included with this kit.

Nothing Tonal?

If you don't need to assess the tonal content of spectrum of the noise then please see the standard Optimus Environmental Sound Level Meter, which has all the environmental parameters but no additional filters.

https://www.noisemeters.co.uk/product/cr/optimus/green/cr170c/

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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 1/1 and 1/3 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) 36 x 1/3 Octave Bands (6.3Hz to 20kHz)
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) Real-Time 1:3 Octave Bands (Graphical & Numeric) Tonal noise detection in 1/3 octave bands Leq LF (20Hz to 200Hz) 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 and 1/3 Octave Bands:Overall Leq & Leq Time History for each band Tonal noise detection in 1/3 octave bands Ln Values: 14 independent statistical values Audio recording during measurement where x=A ,C ,Z; y= F, S, I

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Web Sites

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Product shortcut:
https://www.noisemeters.co.uk/product/cr/optimus/green/cr170c/

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