Optimus Red - Data Logging Occupational Noise Meter

Features

- Meets noise regulations and guidelines
- Type 2 Integrating sound level meter
- Quick and easy to use
- Voice tag recording (audio notes)
- Bluetooth and mobile app
- Single range 20 to 140 dB

Applications

- Occupational noise surveys
- Hearing protection selection
- Noise exposure and dose calculations

Overview

The Optimus Red sound level meter is for measuring sound levels in factories and other work environments in line with the occupational noise regulations.

Let the meter take the strain - The Optimus Red has been designed specifically for occupational noise measurements. Rather than being a general purpose meter that leaves you trying to select the correct measurement range and parameters, the Optimus Red does it all for you, recording all the measurements that you might need now and in the future.

Lower cost meters are available (even within our range), but they may not meet the standards demanded by the regulations and will not be Integrating as required for some occupational noise measurements. They will certainly not be so powerful or easy to use.

Buying the Right Meter

Most occupational noise regulations state that you should use at least a Type 2 Integrating Sound Level Meter that provides you with measurements of Lavg and LPeak. The meter should be verified by a suitably equipped laboratory when new and every year or two years. You also need a Calibrator to check the meter's function before making measurements.

Our Recommendation

For occupational noise measurements with noise exposure calculation we recommend the Noise Measurement Kit CK162B. This includes everything you need for a full occupational noise survey.

Where the noise levels are particularly high, we recommend Optimus Red with Octave Band Filters, which gives the ability to assess the level at the ear when wearing different hearing protectors. See the Optimus with Octave Band Filters page for more information.

https://noisemeters.com/p/cr162b/

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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 X IEC 60651:2001 Type 1 l or Type 2 l 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 IEC 61260:1996 & ANSI S1.11-2004 DIN 45657:2005-03	Size Weight	283mm x 65mm x 30mm 300gms/10oz
		Power	4 x AA alkaline Typically 12 hours with alkaline AA Typically 20 hours with lithium AA non-rechargeable External power: 5v-15v via MultiIO socket via ZL:171 cable (2.1mm socket)
Measurement Range	20dB to 140dB RMS single range	Outputs	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) Bluetooth BLE compatible with Anrdoid and iOS devices
Noise floor	<18dB(A) Class 1, <21dB(A) Class 2		
Frequency weightings	RMS & peak : A, C, & Z measured simultaneously		
Time weightings	Fast, Slow & Impulse measured simultaneously	Case	Material: high impact ABS-PC with soft touch back and keypad
		Tripod mount	1/4" Whitworth socket
Memory	4GB, 32GB factory fit option	Environmental	Temperature: Operating -10°C to +50°C, storage -20°C to +60°C
Time history data rates	10ms, 62.5ms, 125ms, 250ms, 1/2 sec, 1 sec or 2 sec		
VoiceTag	Up to 30 seconds of audio notes with each measurement		Humidity: Up to 95% RH non-condensing
Integrators	Three simultaneous "virtual" noise meters. Integrator 1 is preset to Q3 for Leq functions. Integrators 2 & 3 can be configured with the following	Electromagnetic performance	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
Exchange rate	3, 4 or 5 dB	Language Options	English, French, German, Spanish, Italian
Threshold	70dB to 120dB (1 dB steps)		
Time weighting	None or Slow		
Criterion level	70dB to 120dB (1 dB steps)	Display functions	LXY, LXYMax, LXYMin, LXeq, LCPeak, LZPeak, LCeq-LAeq, LXE Graph of short LAeq, LCPeak, TWA, dose%, est dose% Measurement run time
Criterion time	1 to 12 hours in 1 hour steps		
Integrator quick settings	EU, OSHA HC & OSHA NC, OSHA HC & ACGIH, MSHA HC & MSHA EC, Custom		
		Stored functions	LXYMax & time history of LXYMax LAeq, LCeq, LZeq, LCPeak, LZPeak, LAPeak, Lavg, TWA. %dose Time history of LAeq, LCeq, LZeq, LCPeak, LZPeak, LAPeak, LAIeq, Lavg where x=A ,C ,Z; y= F, S, I

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