

## Optimus Industrial - 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 Industrial 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 Industrial 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 Industrial 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 Industrial 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.

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### Specifications

|                           |  |                             |  |
|---------------------------|--|-----------------------------|--|
| Standards                 | IEC 61672-1:2013 Class 1 or Class 2<br>IEC 61672-1:2002 Class 1 or Class 2<br>Group X<br>IEC 60651:2001 Type 1 I or Type 2 I<br>IEC 60804:2000 Type 1 or Type 2<br>IEC 61252:1993 personal sound exposure meters<br>ANSI S1.4 -1983 (R2006), ANSI S1.43 - 1997 (R2007), ANSI S1.25:1991<br>IEC 61260:1996 & ANSI S1.11-2004<br>DIN 45657:2005-03 | Size<br>Weight              | 283mm x 65mm x 30mm<br>300gms/10oz   |
| Measurement Range         | 20dB to 140dB RMS single range   | Power                       | 4 x AA alkaline<br>Typically 12 hours with alkaline AA<br>Typically 20 hours with lithium AA non-rechargeable<br>External power: 5v-15v via MultiIO socket via ZL:171 cable (2.1mm socket) |
| Noise floor               | <18dB(A) Class 1, <21dB(A) Class 2   | Outputs                     | USB Type B to PC<br>AC & DC output via ZL:174 (2 x Phono, 1m)<br>Multi-pin IO for external power via ZL:171 cable (2.1mm socket)<br>Bluetooth BLE compatible with Android and iOS devices  |
| Frequency weightings      | RMS & peak : A, C, & Z measured simultaneously   | Case                        | Material: high impact ABS-PC with soft touch back and keypad<br>1/4" Whitworth socket  |
| Time weightings           | Fast, Slow & Impulse measured simultaneously   | Tripod mount                | 1/4" Whitworth socket  |
| Memory                    | 8GB, 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  | Electromagnetic performance | IEC 61672-1:2002, IEC 61672-2:2003, IEC 61672-1:2013 & IEC 61672-2:2013<br>Except where modified by EN 61000-6-1:2007 & EN 61000-6-1:2007  |
| VoiceTag                  | Up to 30 seconds of audio notes with each measurement  | Language Options            | English, French, German, Spanish, Italian  |
| Integrators               | Three simultaneous "virtual" noise meters. Integrator 1 is preset to Q3 for Leq functions. Integrators 2 & 3 can be configured with the following  | Display functions           | LXY, LXYMax, LXYMin, LXeq, LCPeak, LZPeak, LCEq-LAeq, LXE<br>Graph of short LAeq, LCPeak, TWA, dose%, est dose%<br>Measurement run time  |
| Exchange rate             | 3, 4 or 5 dB   | Stored functions            | LXYMax & time history of LXYMax<br>LAeq, LCEq, LZeq, LCPeak, LZPeak, LAPeak, Lavg, TWA. %dose<br>Time history of LAeq, LCEq, LZeq, LCPeak, LZPeak, LAPeak, LAeq, Lavg                      |
| Threshold                 | 70dB to 120dB (1 dB steps)   |                             |  |
| Time weighting            | None or Slow   |                             |  |
| Criterion level           | 70dB to 120dB (1 dB steps)   |                             |  |
| 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  |                             |  |

where x=A ,C ,Z; y= F, S, I

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#### Web Sites

Main site:  
<https://www.noisemeters.com>

Product shortcut:  
<https://www.noisemeters.com/p/cr162b/>

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