



Knowledge Beyond Measure.

TSI OmniWear Noise™ Personal Noise Dosimeter



Customizable, Scalable, and Affordable Monitoring.

The TSI OmniWear Noise™ Dosimeter is a body worn personal noise dosimeter, ideal for taking noise exposure measurements, that measures all key workplace noise parameters simultaneously.

The light and robust design guarantees low body burden for the wearer, used in conjunction with the intuitive control and monitoring App, the TSI OmniWear Noise™ Dosimeter allows you to perfectly capture the important noise data you need.

Applications

- Complete shift exposure measurements
- Task based measurements
- Measurements in accordance with CFR 1910.95 (USA), ISO 9612

Features

- Small, lightweight (36g) and discreet device
- Rugged design (Dosimeter - IP65 rating)
- Easy to use, one button operation
- TSI OmniWear Noise App to set-up, check and monitor data remotely
- Multifunctional LED status indicator
- Motion sensing to validate wear
- 1 second time history profiling
- Pause function
- Measures all key noise dose parameters simultaneously
- Intuitive App facilitates easy set-up, deployment, storage and review of results
- Quick and easy calibration
- Drop in and modular wireless charger
- Kit case options for 5, 10 and 20 devices



The Easy-to-Use App

The TSI OmniWear Noise™ Dosimeter App works on a mobile device to configure and set up your TSI OmniWear Noise™ Dosimeter units to deploy them across your working environment, however large or small. The TSI OmniWear Noise™ Dosimeter App works with iOS or Android devices and is available free in the Apple Store and Google Play Store.

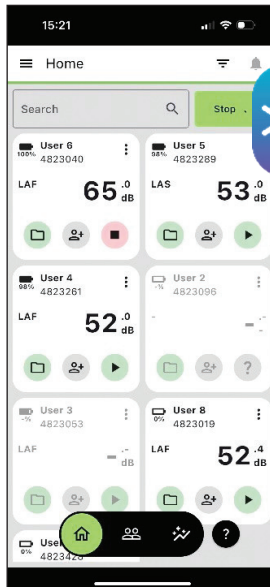


Study & Control Multiple Devices

The App can control and monitor multiple devices without interruption to the device wearer. The App offers access to real-time data collection and allows post run reporting.

A report for each run can be downloaded from each device and viewed on the App, then shared in PDF format.

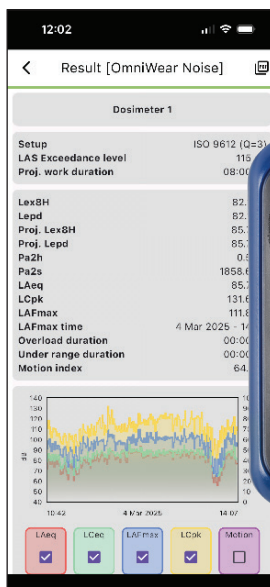
Each App can monitor up to 20 devices at one time and multiple Apps can monitor and control the same set of TSI OmniWear™ Noise Dosimeter devices remotely through Bluetooth® connectivity.



Comprehensive Measurements

The dosimeter collects all necessary sound level measurements including peaks, run averages, and 8-hour projected dose values.

Live alerts and graphical reports can be monitored in real time. The captured data can be collated and analyzed offline retrospectively.

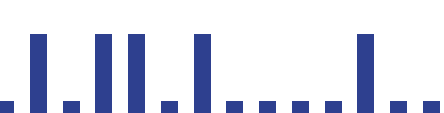


Rugged Mems Microphone

Single Status Light

Single Action Button

Shower Proof Design (IP65)





Wireless charging technology

Modular design for charger stacking

Charging indicator light

Fast, Wireless Charging

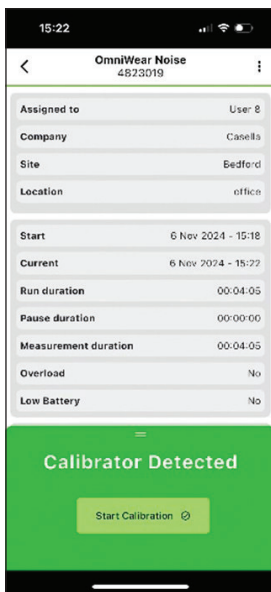
The wireless drop in charger offers quick and reliable charging, each individual charger has a multi colour status light to show charge status at a glance and has a smart charge capability to protect against overcharging and to maximise battery life.

The module charger can be used stand-alone or can be linked together from 2 to 10 units powered from a single wall mounted power supply.

Chargers can be desk mounted or DIN Rail mounted for fixing onto walls or inside cabinets.

Battery & charging

- 16 hours battery life
- 4 hours charge (85%)
- 6 hours charge (100%)



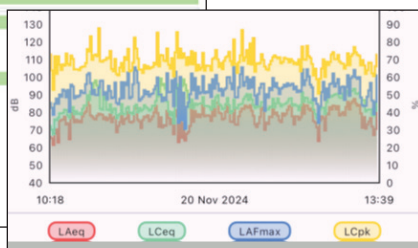
Fast & Simple Calibration

The CEL-120 calibrator can be provided to perform field calibration. The TSI OmniWear Noise™ Dosimeter will auto sense the calibrator and provides the user with a one touch auto calibration.

Calibration data is stored and shows in the reports after the measurements. When a post-measurement calibration is performed, data is stored and any drift is automatically calculated.

Both the TSI OmniWear Noise™ Dosimeter and calibrator are supplied with calibration certificates.

| Report Details | | | | | |
|-----------------------|---------------------|-------------------|---------------------|---------------------|-----------|
| Generated By | Steve Sandford | Date | 22 Nov 2024 - 09:12 | | |
| Device Details | | | | | |
| Device | OmniWear Noise | Assigned to | Undefined | Site | Undefined |
| Serial Number | 4823428 | Company | Undefined | Location | Undefined |
| Result Details | | | | | |
| Start | 20 Nov 2024 - 10:18 | Run duration | 03:22:20 | Overload | No |
| End | 20 Nov 2024 - 13:41 | Phase duration | 02:00:00 | Low Battery | No |
| | | Measurement dur. | 03:22:23 | | |
| Calibration Details | | | | | |
| Date (before) | 20 Nov 2024 - 09:39 | Date (after) | 20 Nov 2024 - 15:34 | Drift | 655.2 dB |
| Gain | 1.3 dB | Gain | 1.4 dB | | |
| Notes | | | | | |
| Dosimeter Setup | | | | | |
| ISO 9612 | | Exchange Rate (G) | 3 | Proj. work duration | 08:00:00 |
| Dosimeter Details | | | | | |
| ISO 9612 | 75.6 dB | Leq16 | 75.5 dB | Leq1 | 75.5 dB |
| Leq1 | 75.5 dB | Pre_Leq16 | 79.3 dB | Pre_Leq1 | 79.3 dB |
| PA2% | 0.1 dB | LAF2% | 79.3 dB | LAF1% | 79.3 dB |
| PA2% | 413.5 dB | LAF2% | 79.3 dB | LAF1% | 79.3 dB |
| LCPk | 137.5 dB | LAFmax | 105.5 dB | LAFmax | 105.5 dB |
| LAFmax | 105.5 dB | LAFmax time | 20 Nov 2024 - 12:12 | Overload duration | 00:00:00 |
| Under charge duration | 00:00:01 | Motion index | 68.8 % | | |



Intuitive Reporting

The reporting function is designed to be very easy to use and perfect for a user with limited experience of noise dosimeters.

All run data is collected and organised in user friendly reports with key noise dose parameters displayed, as well as setup and calibration information. Time-history of the noise data is displayed for the result. Reports are formatted into PDF to be easily shared with stakeholders.

Specifications

TSI OmniWear Noise™ Personal Noise Dosimeter

Standards

ANSI S1.25:1991 R2024, BS EN61252:1997+ A2:2017

Linear Operating Range

70-140.3 dB (A) RMS

Peak Measurement Range

90.0-143.3 dB (C or Z weighted)

Sound Exposure Range

0.0-6,100.0 Pa²Hours

Frequency Weightings

A, C and Z

Time Weightings

Fast and Slow

Exchange Rate

Q=3 or Q=5dB exchange rates

Threshold and Criterion

80dB or 90dB

Operating Temperature Range

0 °C to +40 °C (for ± 0.5 dB error limit)
-10 °C to +50 °C (for ± 0.8 dB error limit)

Altitude:

Normal Environmental Conditions (Up to 2000m)

Indoor or Outdoor Use:

Dosimeter is suitable for both indoor and outdoor use

Pollution Degree of the Intended Environment

Pollution degree: PD2

Humidity Range

± 0.5 dB over 30% - 90% (non-condensing)

Storage Temperature

-10 °C to +50 °C

Battery

Li-ion, 350mAh

Run Time

Typically, 16 hours

Charge Time

6 hours to 100%
4 hours to 85%

Maximum Number of Runs

64

Weight

36g

Dimensions

56 x 32 x 40 mm

Ingress Protection (IP) rating

IP65 (with permeable air vent)

Charger

IPX0 (no ingress protection)

| Setup Name | Threshold (T) | Criterion (C) | Exchange Rate (Q) |
|------------|---------------|---------------|-------------------|
| OSHA HC | 80 | 90 | 5 |
| OSHA PEL | 90 | 90 | 5 |
| ACGIH | 80 | 85 | 3 |
| MSHA | 90 | 90 | 5 |
| ISO AUS | N/A | 85 | 3 |
| ISO 9612 | N/A | 85 | 3 |

Measured Parameters: LX_Y, LX_Ymax, LX_{eq}, LX_{peak}, LA_{avg}, LX_{1eq}, LTM₃, LTM₅, LAE. Where X is the frequency weighting A, C or Z and Y represents time weighting Fast (F), Slow (S) or Impulse (I). Some weightings simultaneously measured where appropriate. 8 hour dose values: LA_{ep,d}, LEX_{8h}, TWA, % Dose, including projected values. Other values: Pa²Hr and Pa²s, motion % and LAS_{max}: time above exceedance level.



To Order

Specify

OW-N-5PKG
OW-N-DVE
OW-N-CHGR

Description

5 device package
1 x OmniWear Noise device
1 x OmniWear Noise charging dock

Accessories

OW-N-WS
PC18

1 x OmniWear Noise replacement windscreen
Power supply

Kits

OW-N-KIT5
OW-N-KIT10
OW-N-KIT20

5 device kit with Chargers, Boots, PSU, Calibrator & Case
10 device kit with Chargers, Boots, PSU, Calibrator & Peli-Case
20 device kit with Chargers, Boots, PSU, Calibrator & Peli-Case

For OmniWear sales and support please contact Casella:
+44 (0)1234 844100 | info@casellasolutions.com



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TSI Incorporated - Visit our website www.tsi.com for more information.

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For more information on the TSI OmniWear Noise™ Dosimeter please visit: tsi.com/omniwear

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