NoiseMeters

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doseBadge Intrinsically Safe Noise Dosimeter

Features

- Intrinsically safe noise dosimeter
- Strong metal case
- Shoulder mounted
- Measures noise exposure

Applications

- Occupational noise surveys
- Hazardous and potentially explosive atmospheres
- Petrochemical industry and mining
- Noise dosimetry
- Hearing protection

Overview

The doseBadge noise dosimeter mounts on a worker's shoulder to measure and store the noise exposure throughout the working day or shift. The doseBadge contains a rechargeable battery, microphone and acoustic processor, all inside a strong metal case that clips on to the worker's clothing or overalls. It is well positioned to measure the noise levels close to the ear.

The doseBadges are controlled using a Reader (included in the CK110AIS/x kits). The Reader communicates with the doseBadge over an infra-red link, like a TV remote control. This means you can mount the doseBadge on the worker and, once you have finished fitting it, start the actual measurement.

The Reader also includes a sound level calibrator to check the function of each doseBadge before use. This is a requirement of most occupational noise regulations.

Intrinsically Safe

The CR110AIS and CR112AIS versions of the doseBadge are approved for use in hazardous and potentially explosive atmospheres, making them ideal for the petrochemical industry and underground mining.

The I.S. version of the doseBadge makes all the same measurements as the standard doseBadge Industrial. It is coloured gold to clearly differentiate it from the standard non-approved version.

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Specifications

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Standards	ANSI S1.25:1991 Personal Noise Dosimeters Class Designation 2AS-90/80-5 IEC 61252:1993 Personal Sound Exposure Meters Reader's Acoustic Calibrator to IEC 60942:2003 Class 2
Range	70 dB(A) to 130 dB(A) RMS 120 dB(C) to 140 dB(C) Peak
Stored Functions	**All configurations:** doseBadge Settings, Calibration Record Measurement Duration, Highest Peak (C) Sound Level Overload Exceedence, Battery Status 115 dB(A) Maximum Sound Level Exceedence 1 Minute Time History of: LAeq (3dB), Lavg (4dB or 5dB), Peak (C) Level, Battery Level **For 3dB Exchange Rate:** LAeq, LEX,8h, LAE, % Dose, Exposure (Pa2 h) Estimated % Dose, Estimated Exposure (Pa 2h) **For 4dB & 5dB Exchange Rates:** Lavg, TWA, % Dose Estimated % Dose
Weightings	"A" for all RMS measurements. "C" for Peak Sound Pressure
Configuration	ISO (Q=3, Time=None) OSHA (Q=5, Time=Slow) **User programmable:** Exchange Rate (3dB, 4dB or 5dB) Criterion Level (80dB, 85dB, 87dB, 90dB) Criterion Time (8hrs, 12hrs, 16hrs, 18hrs) Threshold (None, 80dB, 85dB, 90dB) Time Weighting (None, "S" (Slow))
Memory	CR:110A doseBadge: up to 24 hours of data in a single measurement RC:110A Reader: up to 999 individual doseBadge measurements
Power	doseBadge: NiMH rechargeable battery Reader: 2 x AA/LR6 with auto power switch off CU:195A Mains Power Supply with UK, EU or US plug
Outputs	doseBadge: Infrared to RC:110A Reader Unit Reader: USB 2.0 to computer
Dimensions	Microphone Apex Ø13.0mm,Base Ø47mm,Height 38mm
Weight	doseBadge: 45gms (1.6oz) Reader: 400gms (14oz)
Temperature	-10 °C to +50 °C Operating -20 °C to +60 °C Storage
Humidity	Up to 95%RH Non-Condensing

General Features

- No wires or controls on the badge to catch or knock
- Channel 1: programmable exchange rate, time weighting, criterion time and level
- E.g. Q=3 (ISO) or Q=5 (OSHA), etc.
- Extra user-programmable settings for MSHA, AICHE and ACGIH noise regulations
- Channel 2: Q=3dB (ISO): Leq, Dose %, Lep,d and Peak
- "A" frequency weighting with "C" weighting for Peak
- Powered by an internal rechargeable battery
- doseBadge and Reader communicate using an infra-red link
- Time history gives graph of noise levels
- True Peak reading with Peak Time history
- 115 dB(A) sound level exceeded flag