

NOISE DOSE METERS

TYPE 4442 NOISE DOSE METER TYPE 4443 LOGGING NOISE DOSE METER

A good noise dose meter is an indispensable tool in the fight against noise-induced hearing loss. Long-term exposure to a high average noise level is the number one cause of occupational hearing loss, yet people cannot feel the damage occurring, which means that they often fail to protect their hearing adequately. Noise Dose Meters Types 4442 and 4443 are rugged, easy to use and comfortable to wear for an entire working day. They provide a simple, effective solution for evaluating noise exposure and preventing hearing loss in the workplace.

The basic result provided by a noise meter is the dose percentage, which is sufficient to determine whether a person's work environment is in compliance with regulations. Noise Dose Meter Type 4442 and Logging Noise Dose Meter Type 4443 both provide this information in a simple and very convenient package. However, when an overdose problem is discovered, it is convenient to employ the additional analytical power of Logging Noise Dose Meter Type 4443 to identify the sources of the problem and eliminate them.

BRIEF SPECIFICATIONS

Standards

IEC/ANSI/ISO standards:
See table on page 37

Microphone

1/4-inch prepolarized condenser microphone

Connector: 5-pin LEMO

Measurement Ranges

70 – 140 dB, 50 – 120 dB,
30 – 100 dB (Type 4443 only)

Frequency Weightings

RMS detector: A and C,
Peak detector: C and Lin

Time Weightings

Fast, Slow, and Impulse
(RMS detector)

Measurement Parameters

Measured parameters, as applicable: Dose Percentage, 8 Hour Projected Dose, Sound Exposure (Pa^2h), Time Weighted Average (TWA), Sound Pressure Level (SPL), Maximum Sound Pressure Level (L_{max}), Sound Exposure Level ($L_{\text{EP,d}}$), Maximum Peak (L_{pkmax}), Equivalent Continuous Sound Level (L_{eq} , exchange rate 3 dB), Impulse Weighted Average Sound Level (L_{leq} , exchange rate 3 dB), Average Sound Level (L_{avg} , exchange rate 4, 5 or 6 dB (as, applicable according to setup)



Additional Parameters for Type 4443

Statistical noise levels (L_N), five values selected by the user in 1 dB steps (default: L_{10} , L_{50} , L_{90} , L_{95} , L_{99}) A statistical distribution with 0.5 dB resolution is stored

Logging: One or two values can be logged, selected from these parameters: L_{eq} , L_{leq} , L_{avg} , L_{max} , L_{pkmax} , L_N

Logging Interval: 1 s, 5 s, 15 s, 30 s, 1 min, 5 min, 10 min, 15 min, 30 min or 60 min

Logging Capacity: More than 53,000 values can be stored at any one time (more than 14 h for 1 parameter at a 1 s interval)

ORDERING INFORMATION

Type 4442: Noise Dose Meter
Type 4443: Logging Noise Dose Meter include the following accessories:

MM 0111: 1/4-inch Prepolarized Condenser Microphone with Integrated Cable

KE 0428: Carrying Case with Inlay

DP 0952: 1/4-inch Adaptor for Sound Level Calibrator Type 4231

AO 0577: Serial Interface Cable

VP 7790: Disk with software for download and setup

2 x QB 0016: 9V Alkaline Batteries