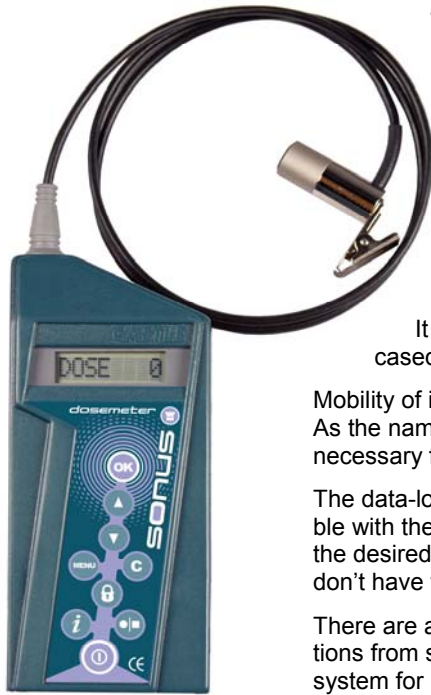


Castle 'SONUS' GA257B Personal Noise Exposure Meter (dosemeter)

The Castle SONUS range of pocket sized sound level meters bring simplicity and power to the worlds of Noise at Work and Environmental sound monitoring. From a basic sound pressure meter to full data-logging, combined sound and dosimeter, the range of systems covers a wide diversity of applications.



The Castle SONUS GA257B is a dedicated basic dosimeter and a feature packed, pocket instrument that is fully compliant with IEC 61252:1993. This meter gives simultaneous sound exposure (LEpd) and maximum peak (Zpeak) measurements, an essential feature for assessments to the Noise at Work Regulations 1989. It has a high-specification measurement microphone and is cased in tough, crack resistant ABS plastic. Designed to be worn by an employee for a full- or part-shift, the GA257B has an 'unbreakable' pocket clip and a lockable keypad. The results are given in a simple, clear format to give an immediate indication of an employee's daily exposure.

It has a high-specification measurement microphone and is cased in tough, crack resistant ABS plastic.

Mobility of instrumentation is essential for effective noise measurement. As the name indicates, the Castle SONUS 'Pocket Meters' pack all the necessary features into pocket sized proportions

The data-logging instruments have a USB connection and are compatible with the Castle dBdataPRO software, where data can be presented in the desired format and copied and pasted into other applications, so you don't have to change the way you have always completed your reports.

There are a number of system packages available to suit many applications from simple tasks such as alarm monitoring, to a fully weatherproof system for long-term environmental monitoring, there are also dedicated packages for Noise at Work requirements.

POCKET POWER

Feature-Packed

Designed for **Industrial Safety Officers** and **Safety Managers** for compliance with the Health and Safety as Work Act; Noise at Work regulation 1989. The Castle GA257B provides all the necessary information you need for completing Noise at Work risk assessments.

- Integrated Sound Exposure Level (LEpd)
- Projected LEpd (8 hour sound exposure)
- DOSE% and Projected DOSE% (8 hours)
- 'A' frequency weighting
- Zpeak - maximum peak level
- Simultaneous measurement of LEpd, and Zpeak
- Elapsed time (running time hrs, min, sec)
- Pa²hr (LEpd expressed in Pascals)
- Overload indication
- Battery condition (Life approx. 12 hours)

A Tough Case for all Weathers...

The physical design and construction of the Castle GA257B casing is extremely tough and durable, made from a substantial thickness of ABS, crack resistant plastic, the GA257B will stand up to almost any industrial environment, a very important feature when this unit is out in the workplace.

Simplicity and Power...

Using the meter could not be simpler. The simple operating system uses logical keys to immediately display the information you need. The power of this little wonder means that it can measure simultaneous 'A' weighted levels as well as monitoring the Peak levels. This is a vital feature for many assessment tasks.

Future-Proof...

The built in software for this meter is designed to suit future upgrading for feature enhancements, legislative changes or instrument upgrades. Details are mailed to customers as soon as they become available. With the Castle Pocket meters, you will always be in step with the law and market requirements.



SONUS GA257B SPECIFICATION

Range of Pocket sized Sound Level Meters and combined Personal Sound Exposure Meters

DESCRIPTION

GA257B Personal Sound Exposure Meter

APPLICABLE STANDARDS

IEC 61252-1:1993 (Personal Sound Exposure Meters)

MICROPHONE AND PREAMPLIFIER

Type 2 Pre-Polarised ½" (13.2 mm) Electret Free-Field, Electret Condenser Microphone:

20Hz – 8KHz ± 2dB

–32 dB ± 3 dB re 1V/Pa

Custom pre-amplifier design

Typical actuator to free-field correction factor (based on 500Hz=0) is shown below

20Hz: 0	1kHz: 0
25Hz: 0	1.25kHz: +0.1
31.5Hz: 0	1.6kHz: +0.3
40Hz: 0	2kHz: +0.4
50Hz: 0	2.5kHz: +0.5
63Hz: 0	3.15kHz: +0.8
80Hz: 0	4kHz: +1.2
500Hz: 0	5kHz: +1.6
630Hz: 0	6.3kHz: +2.3
800Hz: 0	8kHz: +3.6

DISPLAY

Back-lit LCD panel (8x1 Characters)

Alpha-Numeric display for measured results

LEVEL RANGE

Measuring Range:

75-140

Linear operating range (IEC61672-1):

67dB

NOISE FLOOR

Typical 'A' Weighting <32 dB(A) rms.

FREQUENCY WEIGHTING

'A' to IEC 61672-1:2002 and IEC 60651:1979+A1+A2

FREQUENCY RANGE

20 Hz - 8 kHz (including microphone)

1 Hz - 20 kHz (electrical characteristics)

INSTRUMENT RESPONSE

Simultaneous Peak and rms

MEASUREMENT PARAMETERS

LEpd (Sound Exposure Level), PLEpd (Projected LEpd over 8 hours), DOSE% (LEpd compared to criterion level as %) PDOSE% (Projected DOSE% over 8 hours, DOHR

(DOSE% per hour), Pa²h (LEpd displayed in Pascal units), Dose per hour, Zpeak (Max. Peak Level)

Other Displays: Elapsed time, Overload, Battery Life

CRITERION LEVEL

The level at which the 8 hour DOSE% = 100%

User selectable between: 80dB, 85dB and 90dB

EXCHANGE RATE

The rate at which the DOSE% doubles.

User selectable between: 3dB and 5dB

CALIBRATION

Software controlled 91.0 to 120.0 dB (1kHz) in 0.1 dB steps

PROCESSING

A to D Converter: 12-bit, 325kHz sampling

Controller: 8MHz, micro-controller

POWER REQUIREMENTS

Batteries: 1 x 6LR61 (size PP3), Life: >12 hours (alkaline batteries, continuous operation).

SIZE AND WEIGHT

Dimensions: 60mm (width) x 35mm (depth excluding pocket clip) x 135mm (height)

Microphone cable length: 800mm (including rubber sleeve and microphone)

Weight: 220gms (including battery)

ACCESSORIES

GA601 Single Level Calibrator:

KA010 Kit Case for GA257B, GA601 and Accessories

In the interest of continued developments, Castle reserve the right to change the product specifications without notice

SONUS PRODUCT RANGE

Sound Meters	Class 1	Class 2
Basic— sound pressure level	GA116B	GA216B
Integrating—(Leq)	GA116I	GA216I
Data-logging	GA116L	GA216L
Dosemeters		
Basic Dedicated Dosemeter		GA257B
Data-logging Dosemeter		GA257L