

Castle 'SONUS' GA257L Personal Data-Logging Noise Exposure Meter (dose meter)



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 dose meter, the range of systems covers a wide diversity of applications.

Powerful, yet small and lightweight, the Castle GA257L noise dose meter combines the latest technological advances with a realistic price tag. With it's clear and easy to read 8 character alpha numeric display, soft-touch keypad, electronic security lock and instant calibration facility, the GA257L is sure to prove invaluable in a wide range of occupational health applications.

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

All measured values can be saved to the internal flash memory of the GA257L for subsequent output. The results can be viewed on the instruments own display or downloaded to a PC using the included software.

A particularly important feature in a dose meter is security. The GA257L has the ability to lock the keypad with just two keystrokes. From this state, all of the functions will be inoperable. To unlock the instrument, a code is required which is supplied with the unit.

The measured noise is computed and stored as a series of pre-chosen time intervals. The GA257L will store up to approximately 4800 intervals in either one or individual recordings.

Each GA257L is supplied in it's own plastic case complete with a handbook, windshield, calibration screwdriver and pen. A full range of kits are also available with calibrators and software.

- Measures Lep, Dose%, Dose per Hour and Pa²H
- Measures simultaneously LAeq and either LZeq or LCeq
- User selectable Exchange rate and Criterion level.
- C or Z weighted Peak
- Save results to internal flash memory
- Download data to a PC via a USB connection
- Analysis software included with the meter
- Small and light weight, fits into small shirt or jacket pocket
- Lockable Key pad
- Constructed of tough crack resistance plastic.
- Single battery operation of approximately 12 hours
- Supplied with a strong clip for attaching to a belt or shirt pocket



SONUS GA257L SPECIFICATION

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

Standards

IEC61672-1-2002 (Sound Level Meters)

IEC61252-1993 (Personal Sound Exposure Meters)

Level ranges:

| RANGE | DISPLAY RANGE | LINEAR RANGE | PEAK RANGE |
|--------|---------------|--------------|------------|
| 30-100 | 29 – 101dB | 30 – 100dB | 40 – 103dB |
| 50-120 | 59 – 121dB | 50 – 120dB | 60 – 123dB |
| 70-140 | 69 – 141dB | 70 – 140dB | 80 – 143dB |

Linear Operating range:

70 dB

Detector Characteristics:

RMS and Peak

Frequency Weighting

'A', 'C' & 'Z' Weighted in Accordance with IEC 61672-1-2002

Combinations of 'A', 'A'&'C' simultaneous or 'A'&'Z' simultaneous available for Leq, Lmax and Pmax

Time Weighting

'Slow', 'Fast' and 'Impulse' in Accordance with IEC 61672-1-2002

Exchange rate:

3dB, 4dB or 5dB

Criterion Level:

75dB, 80dB, 85dB or 90dB

Threshold Level:

-5dB, -10dB or OFF

Peak:

3dB above top of selected range

Display:

Custom alphanumeric LCD, digit size 7mm x 5mm

Memory:

4800 Data Intervals Maximum

Microphone/Preamp:

ACO 7146A pre-polarised ½" condenser microphone, 25mV / Pa

Calibration:

91.0 to 120.0dB @ 1KHz

Batteries:

1 x PP3 (9V)

Approximately 12 hours continuous use

Operating Temperature:

Operating Range: -10 to + 50°C

Humidity:

Effect: < 0.5dB from 25% to 90% RH

Vibration:

No effect on instrument

EMC:

Emissions: EC 61000-6-3, EN61326-1:2006, CISPR 22:1997
EN55022:1998, FCC Rules, Part 15 2003 Class B

Immunity: IEC 61000-6-2:2005, EN61326-1:2005
Levels ±4kV (Contact), ±8kV (Air)

Amp Mod: IEC 61000-6-2:2005, Level 10V/m

Construction:

ABS plastic

Display parameters include :-

Lp (Sound Pressure Level)

Leq (Level equivalent) - dual measurement

Lep'd

Pa2Hrs (Dose % x 0.032)

Pmax (Maximum linear peak hold)

L₁₀, L₉₀ and Ln (user selectable)

Dose count 1% to 9999% with Variable exchange rate of

3dB, 4dB or 5dB exchange rates

75dB, 80dB, 85dB or 90dB criterion value.

'A' frequency weighting

'Slow', 'Fast' and 'Impulse' time weighting

Elapsed time (Running time hrs, mins, secs, 1%)

Period time (time left to end of current interval period)

Exposure Time (for Lep'd and dose calculations)

Overload indication (Flashing alternate display)

Battery condition indication

Low battery (Flashing alternate display)

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 |

ORDERING INFORMATION

| | |
|------------------|-----------------------------------|
| GA257L | - Industrial Dosemeter |
| GA607 | - Dual Level Calibrator |
| KA010 | - Attaché Kit Case |
| PC007 | - dBdataPRO software |
| MK276DP1B | - Dosemeter microphone |
| KA020 | - Weatherproof System Case |
| ZL2093-03 | - Weatherproof cable |
| MW402 | - Weatherproof microphone housing |



System showing GA116/216 sound Meter and GA257 Dosemeter