

Castle 'SONUS' GA116L and GA216L Pocket Sound Meters and Combined Personal Noise Exposure Meters (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 dose-meter, the range of systems covers a wide diversity of applications.

Top of the Castle Pocket Range of Sound Level Meters is the SONUS L (GA116L & GA216L), a Noise at Work and Environmental Sound Meter boasting a combined integrating sound level meter and dosimeter with full data-logging capability. Simply un-plug the sound meter microphone and plug-in the dose-meter cable to convert to a full-function dosimeter. The dual-measurement feature of the SONUS means two versions of most parameters can be measured simultaneously. This feature means you only ever need to measure once to capture all the data you need!

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 GA116L or GA216L for subsequent output. The results can be viewed on the instruments own display or downloaded to the included dBdataPro noise analysis PC software via a high speed USB connection.

Using the instruments could not be simpler. The simple user interface can easily be scrolled and selected to immediately display the information you need. The keypad also has a dedicated dB Range key, simply press and then select your required range.

The instruments also have 3 operating modes, select one and the instrument sets itself to the required settings. Its never been easier !!

The measured noise is computed and stored as a series of pre-chosen time intervals. The GA116L and GA216L instruments will store up to approximately 2100 intervals in either one or multiple recordings.

Each instrument is supplied with a comprehensive printed user manual and a getting started sheet.

- Measures L_p , L_{eq} , L_{max} , L_E , Pa^2h , $L_{ep'd}$, DOSE, Dose Per Hour, L_{10} , L_{90} , $L_{(user)}$
- Overload latched indicator
- Measures simultaneously L_{Aeq} and either L_{Zeq} or L_{Ceq}
- User selectable Exchange rate, Threshold and Criterion level.
- User Modes: N@W, Environmental or ALL
- C or Z weighted Peak
- Save results to internal flash memory
- Download data to a PC via a USB connection
- Noise Analysis Software included with the meter
- Small and light weight, fits into small shirt or jacket pocket and also supplied with a strong pocket clip.
- Lockable Key pad through options
- Constructed of tough crack resistance plastic.
- Single battery operation of approximately 12 hours

SONUS L (GA116L & GA216L) 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 Lp, Leq and Lmax

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:

2100 Data Intervals Maximum

Microphone/Preamp:

ACO 7146A pre-polarised 1/2" 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

LE

Lmax - dual measurement

'C' or 'Z' Weighted Peak

L₁₀, L₉₀ and Ln (user selectable)

Pa2Hrs (Dose % x 0.032)

Dose per Hour

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

3dB,4dB or 5dB exchange rates

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

'A', 'C' and 'Z' frequency weightings

'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

GA116L	-	Sonus Sound Level Meter Class 1
GA216L	-	Sonus Sound Level Meter Class 2
GA607	-	Dual Level Calibrator
KA010	-	Attaché Kit Case
PC007	-	dBdataPRO software
MK579DP1B	-	Dosemeter microphone
KA020	-	Weatherproof System Case
ZL2094-03	-	Weatherproof cable
MW402	-	Weatherproof microphone housing