

The Castle GA215 Integrating Sound Level Meter Technical Data-sheet

Simplicity of use combined with maximum functionality were key objectives for the development of the Castle GA215 Integrating Sound Level Meter

Castle Group are acknowledged experts in noise and vibration measurement with over 30 years experience. When you buy from Castle you buy with confidence.

Pocket Power

A feature packed instrument that is fully compliant with IEC 61672-1:2002 Class 2, IEC 60651: 1979 Type 2 and IEC 60804: 2001 Type 2. This meter gives simultaneous Leq (rms. average) and peak measurement 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.

Feature-Packed

Designed for **Industrial Safety Officers** and **Safety Managers** for compliance with the Health and Safety at Work Act; Noise at Work regulation 1989. The Castle GA215 provide all the necessary information you need for completing Noise at Work risk assessments.

- Integrated equivalent level (Leq) measurement
- Personal Sound Exposure Level (Lex) (was Lep'd)
- Sound Pressure (Lp) to 0.1 dB resolution
- 'A' and 'C' frequency weighting (toggle)
- 'Slow' and 'Fast' Time weighting (toggle)
- Simultaneous measurement of Lp, Lmax, and Pmax
- Lmax - maximum Lp hold (rms.)
- Pmax - maximum peak level
- Elapsed time (running time hrs, min, sec)
- Single Event Sound Exposure Level (LE) was (SEL)
- Overload and Under-range indication
- Battery condition (Life approx. 12 hours)

A Tough Case for all Weathers...

The physical design and construction of the Castle GA215 casing is extremely tough and durable, made from a substantial thickness of ABS, crack resistant plastic, the GA215 will stand up to almost any industrial environment.

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 Noise at Work 1989 assessments.

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.



noise



vibration



INVESTOR IN PEOPLE



Castle
advanced sound solutions



Specification

DESCRIPTION

GA215 Class 2, Integrating Sound Level Meter

APPLICABLE STANDARDS

IEC 61672-1:2002 (Integrating, Sound Exposure and Sound Level Meters)
IEC 60651:1979+A1+A2 (Sound Level Meters)
IEC 60804:2000 (Integrating Function)

MICROPHONE AND PREAMPLIFIER

Type 7052 Pre-Polarised ½" (13.2 mm)
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 as follows

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:
35-140
Linear operating range (IEC61672-1):
65dB
3 Measurement Ranges (IEC61672-1):
35-100
55-120 - Reference Range
75-140

NOISE FLOOR

Typical 'A' Weighting <32 dB(A) rms.
'C' Weighting <38 dB(C) rms.

FREQUENCY WEIGHTING

'A' and 'C' 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)

TIME WEIGHTING

Slow and Fast

INSTRUMENT RESPONSE

Simultaneous rms. and Peak

MEASUREMENT PARAMETERS

Lp (Sound Pressure Level), Leq (Equivalent Sound Level), Lmax (maximum Level), Pmax (Max. Peak Level), Lex (Sound Exposure Level), LAE (Single Event Sound Exposure Level)
Other Displays: Elapsed time, Overload, Battery Life

CALIBRATION

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

PROCESSING

A to D Converter: 12-bit, 352Hz 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 without microphone) or 210mm (height with microphone)
Weight: 220gms (including battery)

MANUALS

Multi-language manuals*: French, German, Spanish and Italian.

ACCESSORIES

GA601 Single Level Calibrator:
KA010 Kit Case for GA215, GA601 and Accessories

Note: Items marked * will be available as upgrades in the near future.
In the interest of continued developments, Castle reserve the right to change the product specifications without notice