

## GA113 Combined Integrating Sound Level Meter and Dosemeter

Simplicity of use combined with maximum functionality were key objectives for the development of the Castle GA113. This is a combination 2 in 1 instrument being an Integrating Sound Level Meter and a Personal Dosemeter



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### Pocket Power

A feature packed instrument that is fully compliant with IEC 61672-1:2002 Class 1, IEC 60651:

1979 Type 1, IEC 60804: 2001 Type 1 and IEC61252: 1993. This meter gives simultaneous Leq (rms. average) personal exposure (Lex/LEP'd) and peak measurement for assessments to the Noise at Work Regulations 1989. It has a high specification, Class 1 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 GA113 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)
- Optional dosimeter plug-in microphone
- 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
- Pascal Squared Hours (Pa2h)
- 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)

### APPLICABLE STANDARDS

IEC 61672-1:2002 (Integrating, Sound Exposure and Sound Level Meters) IEC 60651:2001 (Sound Level Meters) IEC 60804:2000 (Integrating Function)

### MICROPHONE AND PREAMPLIFIER

Type 7146A Pre-Polarised ½" (13.2 mm) Free-Field, Electret Condenser Microphone: 20Hz – 20KHz ± 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

### DISPLAY

Back-lit LCD panel (8x1 Characters)  
Alpha-Numeric display for

### FREQUENCY RANGE

12.5 Hz - 20 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)

### CALIBRATION

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

### PROCESSING

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 <35 dB(A) rms.  
'C' Weighting <36 dB(C) rms.  
**FREQUENCY WEIGHTING**  
'A' and 'C' to IEC 61672-1:2002 and IEC 60651:2001,

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 30mm (depth excluding pocket clip) x 135mm (height without microphone) or 210mm (height with microphone)  
Weight: 200gms (without battery)

**Accessories:**

MK279DP1B Plug In Microphone  
GA607 Dual Level Calibrator  
KA010 Case

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