

# Acoustic Calibrators

- **Class 1 & 1L to IEC 60942:1988**
- **94dB & 104dB SPL Output @ 1kHz**
- **PTB Type Approval for CR:511F**
- **Calibration Adaptors available**
- **Long Battery Life**

## Introduction

The CR:510 Series of Acoustic Calibrators is a range of precision calibration units designed to be used for the field calibration of Sound Level Meter, Noise Dosimeters and Noise Measurement Equipment.

The range consists of 3 units, all of which provide outputs of 94dB and 104dB (CR:511E & CR:511F) and 94dB (CR:512) at a frequency of 1kHz.

The CR:511E and CR:511F units meet the requirements of the IEC 60942:1988 standard for Class 1L and Class 2, whilst the CR:512 meets the requirements for a Class 1 instrument.

The CR:511F has been Type Approved to this standard, and carries PTB Type Approval. A reference barometer is available for use with the CR:511F with corrections for the instrument marked on the scale.

A range of adaptors is available which allow the units to be used with a wide range of different microphone capsules. As standard, the units are provided with a QC:3 ½" adaptor. Please refer to the specifications overleaf for details of the available adaptors.



# CR:510



## Specification

### Applicable Standards

CR:511E	Class 1L & Class 2 to IEC 60942:1988
CR:512	Class 1 to IEC 60942:1988
CR:511F	Class 1L & Class 2 to IEC 60942:1988 PTB Type Approval (Nr. 21.51/00.02)

### Output Levels re 20 $\mu$ Pa (SPL)

CR:511E	94dB & 104dB	$\pm 0.3$ dB
CR:511EF	94dB & 104dB	$\pm 0.3$ dB
CR:512	94dB	$\pm 0.3$ dB

### Output Frequency

1kHz  $\pm 1.5\%$

### Reference Conditions

Temperature	23 $^{\circ}$ C
Barometric Pressure	101.3kPa
Relative Humidity	65% RH

### Battery

1 x 9v 6F22 (NEDA1604)

### Dimensions

Length	138mm
Diameter	47mm

### Weight

220 gms with battery

### Stability

0.1dB

### Harmonic Distortion

Less than 2%

### Operating Temperature

-10 $^{\circ}$ C to +50 $^{\circ}$ C (See Note 1)

### Effective Volume

40cm<sup>3</sup>

### Cavity Diameter

1.125 inch

### Calibration Adaptors

QC:1	for 1 " Microphone Capsules
QC:2	for 20mm Microphone Capsules
QC:3	for 1/2" Microphone Capsules (Supplied as standard)
QC:4	for 10mm Microphone Capsules
QC:7	for 1/4" Microphone Capsule
QC:426A	for MK:426A Outdoor Microphone System

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**Your Cirrus Distributor:**

**CR:510 Series Acoustic Calibrators**