

CEL-120 Acoustic Calibrators

Introduction

The CEL-120 calibrators are compact and ergonomically designed with simplicity and ease of use being the main priority. A simple 2 button keypad is provided for logical control of the unit's functions. Two versions are available fulfilling the accuracy requirements of ANSI and IEC in the Class 1 and Class 2 categories.

A feedback microphone incorporated into the design ensures a stable tone for precise setting up of sound level meters and noise dosimeters. The included display LED's give clear and concise status information at all times.



CEL-120 Acoustic calibrator

Key benefits

- ❑ Complies with ANSI S1.40 – 2006 and IEC 60942: 2003
- ❑ Class 1 & 2 units available
- ❑ Single frequency of 1 kHz
- ❑ Single 114 dB and dual 114 & 94 dB level outputs (depending on model)
- ❑ LED display showing status and selected level
- ❑ 2 push button operation
- ❑ Automatic power off to conserve battery life
- ❑ ½" cavity as standard (¼" calibration facility with optional reducing coupler)
- ❑ Powered from 2 x AAA batteries
- ❑ Lightweight and compact

Applications

The field calibration check of sound level meters is an essential procedure when carrying out any type of noise survey. Calibration with an approved acoustic calibrator, both before and after each measurement, ensures that the meters are providing consistently accurate readings. This is necessary for monitoring according to relevant noise exposure standards such as OSHA, NIOSH, ISO etc.

Recent changes to the third edition of the international standard for acoustic calibrators under the publication IEC 60942: 2003 have tightened the performance requirements for these devices. The new CEL-120 Acoustic Calibrators have been designed to comply with these new standards to ensure accurate calibration over a wide range of temperature, humidity and pressure conditions, typical of fieldwork.

A high quality silicon microphone and feedback loop maintains the selected acoustic pressure in the cavity at the required level by compensating for any changes. The innovative indication LED gives the user status on the selected level, and battery condition of the device. Both units will detect when the microphone is removed from the calibrator and switch off the tone thereby extending useful battery life for up to 2 years.

Ordering information

CEL-120/1: Dual level (114 & 94 dB), single frequency (1 kHz) Class 1 accuracy

CEL-120/2: Single level (114 dB), single frequency (1 kHz) Class 2 accuracy

Optional CEL-4726 coupler

Technical Specifications

Types available:

CEL-120/1: Calibrator to EN (IEC) 60942:2003 Class 1, ANSI S1.40:2006 Class 1

CEL-120/2: Calibrator to EN (IEC) 60942:2003 Class 2, ANSI S1.40:2006 Class 2

Calibration level at reference conditions:

CEL-120/1 +/- 0.25 dB, CEL-120/2 +/- 0.35 dB

Calibration level produced (over environmental range):

CEL-120/1: 114.0 ± 0.4 dB & 94.0 ± 0.4 dB

CEL-120/2: 114.0 ± 0.6 dB

Calibration frequency: 1 kHz ± 1 Hz

Harmonic distortion: less than 1%

Calibration cavity: ½" directly into cavity plus ¼" with optional coupler CEL-4726

Battery and batt life: 2 x AAA (LR6 alkaline recommended) typically 2 years

Dimensions: 2.9 x 2.1 x 1.4 in (75 x 54 x 37 mm)

Weight: 0.19 lbs (85 g) including batteries