

# Precision Calibrator

## 94/114 dB, Class 1



Precision Calibrator

The battery operated Precision Calibrator is tailored for the calibration of sound level meters and acoustic measurement equipment. It can provide an output level of either 94.0 or 114.0 dB (switch-selectable) at a frequency of 1 kHz.

It has been designed for both field and laboratory use and the accuracy has been calibrated to a reference traceable to the National Institute of Standards and Technology (NIST).

The Precision Calibrator features a stable sound pressure independent of the battery condition. It will turn off automatically to preserve battery and guarantee a stable output.



Optional 1/4" Adapter for M4260 Measurement Microphone

### Key Features

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- Output level: 94 or 114 dB
- Output frequency: 1 kHz
- 1/2" microphone opening
- IEC 60942-1:2003 compliant
- Battery operated
- Optional adapter for 1/4" microphones (e.g. M4260 Microphone)

### Applications at Sound Level Measurement

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- Ensure accurate measurements
- Adapt the measurement microphone to the local environmental conditions, such as temperature, humidity and air pressure
- Proving traceable measurements to national references
- Verify the stability of the sound level meter

## Specifications

Calibration sound pressure level	114.0 dB and 94.0 dB $\pm$ 0.2 dB SPL re: 20 $\mu$ Pa (114.0 dB is the principal sound pressure level)
Equivalent free-field level	-0.12 dB for 1/2" microphones
Frequency	1 kHz $\pm$ 1%
Harmonic distortion	< 2 %
Stability after pressing On	$\pm$ 0.1 dB after 2 seconds
Effective volume of calibrator and microphone (WS2P)	4.15 cm <sup>3</sup> (0.253 inch <sup>3</sup> )
Minimum stabilizing time	10 seconds after coupling microphone and calibrator
Reference conditions	101.3 kPa, 23 °C and 50 % RH.
Static pressure range	65 kPa to 108 kPa, SPL variation < $\pm$ 0.3 dB
Temperature range	-10 °C to +50 °C <ul style="list-style-type: none"> <li>• SPL variation &lt; <math>\pm</math> 0.4 dB</li> <li>• Frequency variation &lt; <math>\pm</math> 7 Hz</li> </ul>
Humidity range	10 % to 90 % RH, non-condensing <ul style="list-style-type: none"> <li>• SPL variation &lt; <math>\pm</math> 0.3 dB</li> <li>• Frequency variation &lt; <math>\pm</math> 7 Hz</li> </ul>
Storage	<ul style="list-style-type: none"> <li>• Temperature: -40 °C to +60 °C</li> <li>• Humidity: 0 % to 90 % RH (non-condensing)</li> </ul>
Dimensions L x W x H	<ul style="list-style-type: none"> <li>• 106.1 x 63.4 x 25.9 mm</li> <li>• 4.18 x 2.5 x 1.02 inch</li> </ul>
Weight	156 g (5.5 oz.)
Battery	9 V NEDA 1604A or IEC 6LR61 Battery Voltage Operating Range 6.7 V to 10 V
Traceability	<ul style="list-style-type: none"> <li>• Traceable to National Institute of Standards and Technology (NIST)</li> <li>• PTB approved</li> </ul>
Standards	<ul style="list-style-type: none"> <li>• ANSI S1.40-2006, Class 1, IEC 60942-2003, Class 1</li> <li>• Safety IEC 61010-1:2001</li> <li>• EMC EU directive 2004/108/EC, IEC 61326-1:2005</li> <li>• CE compliant</li> </ul>
Accessories included	Battery
Optional	1/4" Calibrator Adapter, NTi Audio # 600 000 391
NTi Audio #	600 000 388

All information subject to change without notice.  
 Manufactured for NTi Audio by PCB Piezotronics, USA, type CAL200.