CASELLA

62x series

Casella 62x
Digital
Sound Level Meter

Ideally suited to a wide range of industrial noise measurement applications. The 62x series sound level meters use the latest digital technology to give high standards of performance in a compact design.

www.casellasolutions.com

62xseries

Applications

- Occupational Noise Measurement
- Workplace noise according to ISO9612 and OSHA 29CFR 1910.95
- Selection of hearing protection
- Calculation of noise exposure
- Ensuring compliance with workplace noise legislation
- Machinery noise tests

Using a high resolution colour TFT display, the 62x series is specifically designed to ensure taking noise measurements is quick and easy.

Different models are available depending on your requirements for use in general workplace noise measurements, up to full industrial hygiene requirements where octave band analysis is required for the effective selection of hearing protection.

Key Features

- Compact, rugged design
- Simple operation
- Single large measurement range
- Large memory
- High resolution colour display
- Real-time octave band analysis ('B' models)
- Simultaneous measurement of all workplace noise parameters
- Instrument menu in 9 languages
- Pre-defined and user configurations available
- Automatic calibration function
- Long battery life

Real time octave band measurement

High Resolution Colour Display

The 62X series uses colours of the high-resolution display to aid the user in making measurements. Measurement screens are colour coded depending on the mode of operation. For example, during a measurement run, the header and footer of the display is green (shown right), whereas when a run is stopped they are red, similar to traffic lights for 'stop' and 'go'.

Measured parameters are displayed in different colours, and the bar graphs are illustrated with the same colours to give an easy understanding of the noise climate.

- Unique colour coding of measurements
- Bright backlight
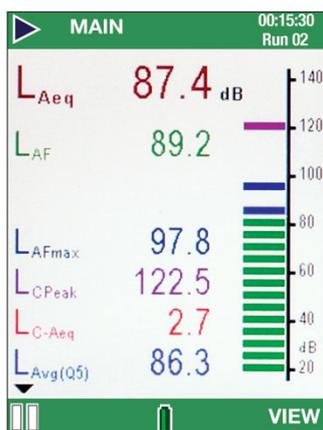
Broadband measurement screen

Simple Operation

The 62x series was designed with ease of use in mind. The menu structure is designed to pick up and use without the use of a manual. A simple icon structure is used with word prompts for each selection, available in seven languages.

The instrument has six selectable set-ups. Four pre-defined set-ups can be used to satisfy local workplace noise legislation. Two user set-ups can be defined to display parameters and weightings as required. Regardless of the setup used, the 62x series measures and stores all parameters and weightings even if not selected. These can be viewed if necessary on the software.

Up to 100 measurements can be stored without the need to download. All runs are date and time stamped. When connected to a PC via the USB connection, the 62x series acts like a memory card, so data files can be moved to a PC and easily reviewed without the need for proprietary software.

- Intuitive menu structure
- Multilingual user interface
- Predefined and user selectable set-ups

Set-up selection

Multi-lingual Interface

Digital Technology

By using Digital Signal Processing (DSP) technology, the 62x series measures all the workplace noise parameters simultaneously with necessary time and frequency weightings, preventing incorrect setup of the instrument. The instrument has a single large measurement range of 20-140dB, eliminating the need to change measurement range and preventing errors.

On the CEL-620B model, octave analysis is performed in real-time, saving time compared to performing measurements sequentially.

Octave band results are shown in both bar-graph and tabular form with the dominant frequency highlighted. Time history of the broadband noise level is displayed in real-time, so a user can see how the noise level varies with time.

- Large measurement range
- Simultaneous measurement
- Automatic calibration
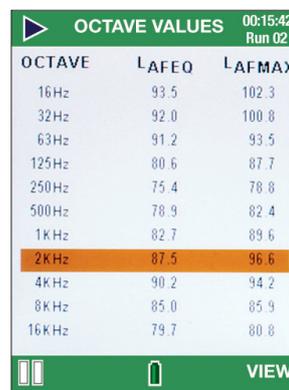
Tabular octave results
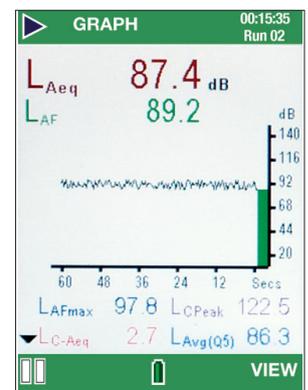
Time history display

Instrument Range & Calibration...

All 62x models are integrating so measure average noise levels as well as peak levels for workplace noise legislation. CEL-620A model also simultaneously measures the L_C and L_A used within the HML method for the selection of hearing protection. In addition, the CEL-620B model performs real-time octave band analysis from 16Hz to 16kHz, values which are used in the octave band method for selection of hearing protection. If future requirements change, any instrument can be upgraded to a higher model without returning to Casella. Complete measurement kits are provided with an acoustic calibrator in a robust kit case complete with instruction manuals and calibration certificates.

- Range of instruments available
- Future proof upgrade ability
- Complete measurement kits
- All models available in Class 1 or Class 2

CEL 120 Calibrator

When the CEL-120 calibrator is attached, the instrument automatically enters calibration mode

Technical Specification

Applicable Standards:

IEC 60651 - 1979
IEC 60804 - 2000
IEC 61672 - 2002
ANSI S1.4 - 1983 (R2006)
ANSI S1.43 - 1997 (R2007)

Octave filters (CEL-620B model only):
IEC 61260 Class 0
ANSI S1.11-2004

Technical:

Total measurement range:	20 to 140dB RMS (single range), 143.0 dB Peak
Frequency weightings RMS:	Simultaneous A, C & Linear (Z)
Frequency weightings Peak:	Simultaneous A, C & Linear (Z)
Time weightings:	Simultaneous Slow, Fast & Impulse
Amplitude weightings:	Q3, Q4 and Q5 (Q4 & Q5 applicable to L_{avg} only)
Thresholds:	70 to 90 (dB) in 1 dB steps (applicable to L_{avg} only)
Noise floor:	<33dB(A) Class 2, <25dB(A) Class 1
Runs stored:	100
Display:	320x240 pixel transmissive colour TFT
Frequency bands:	11 octave bands 16Hz to 16kHz (CEL-620B model only)
Calibration information:	Stores pre and post run calibration date, time and level
Output (P.C.):	USB 2.0 'A' to 'Mini B'
Batteries:	3 x AA Alkaline (supplied) or rechargeable
External power:	9-14V DC at 250mA via 2.1mm connector
Battery life:	11 hours with backlight on, 20 hours backlight off
Tripod mount:	1/4" Whitworth socket
Size mm (in):	72 x 229 x 31mm (2.8 x 9.0 x 1.2")
Weight gm (oz):	295g (10.4oz)

Measured Parameters:

CEL-620A: L_{XY}, L_{XYmax}, L_{XYmin}, L_{Xeq}, L_{Xpeak}, L_{avg}, L_C-L_A, L_{XIeq}, L_{TM3}, L_{TM5}, L_{AE}

CEL-620B: L_{XY}, L_{XYmax}, L_{XYmin}, L_{Xeq}, L_{Xpeak}, L_{avg}, L_C-L_A, L_{XIeq}, L_{TM3}, L_{TM5}, L_{AE}

Octaves: L_{XY}, L_{Xeq}, L_{XYmax}

Where X is the frequency weighting A, C or Z and Y represents time weighting Fast (F), Slow (S) or Impulse (I).
All weightings simultaneously measured where appropriate.

Environmental:

In Operation	Relative humidity of 5% to 90% (non-condensing) Temperature 0 to 40°C (Class 2), -10 to 50°C (Class 1) Atmospheric pressure of 65 to 108kPa
In Storage	0 to 90%RH in the absence of condensation Temperature -20 to 60°C Atmospheric pressure of 65 to 108kPa

Ordering Information

CEL-620A2	Integrating Digital Sound Level Meter (Class 2)
CEL-620B2	Integrating Octave Band Sound Level Meter (Class 2)
CEL-620A1	Precision Integrating Digital Sound Level Meter (Class 1)
CEL-620B1	Precision Integrating Octave Band Sound Level Meter (Class 1)

All instruments and calibrators are provided with calibration certificates.

Instrument Kits

Complete kits are available with acoustic calibrator (CEL-120), kit case, windshield, instruction manuals and USB cable.
For a complete instrument kit add /K1 to the part number e.g. CEL 620A2/K1. A typical instrument kit is pictured below.

Kits come complete with Casella Insight Data Management Software, see Insight data sheet for more details.

Other Accessories

CEL-6840	Standard kit case
206084D	Executive kit case
CEL-6841	Windshield
CEL-120/1	Acoustic Calibrator Class 1
CEL-120/2	Acoustic Calibrator Class 2
CEL-6718	Lightweight tripod
CEL-251	Microphone Class 1
CEL-252	Microphone Class 2
PC18	Universal power supply
CMC51	USB download cable

Casella reserves the right to amend the specification without notice