

# CEL-630 Series Environmental & Occupational Sound Level Meter

NoiseMeters



## Confident Noise Measurements



### KEY FEATURES

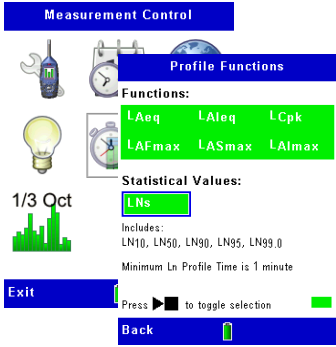
- Ideal for environmental or occupational monitoring.
- Easy to use switch-on-and-go functionality.
- Latest digital technology with a high resolution colour TFT display.
- Pre-configured setups for occupational and environmental measurements.
- Single measurement range up to 140dB, no range adjustment required.
- Data markers and back erase function.
- Real-time octave & 1/3 octave measurements.
- Simultaneous measurement of all parameters with all frequency and time weightings.
- Class 1 or Class 2 models available.
- 1GB memory for more than 2 ½ years of storage.
- Removable pre-amp.
- Environmental kit available.

### INTRODUCTION

The CEL-630 is an easy to use instrument designed to undertake the measurement requirements of workplace and environmental noise. It also complies with the latest IEC and ANSI international standards for sound level meters.

Just switch on the instrument, auto-calibrate and start measuring with one of the predefined views. Regardless of the view selected, all data is measured and stored simultaneously so no mistakes can be made. By implementing the latest digital technology, the meter has a single measurement range so no adjustment is required, ensuring the highest levels of performance with all noise sources.

Models are available for both environmental and/or occupational noise with the availability of frequency analysis and advance functions such as data markers, timers and logging of time history data. Even with such advanced functionality, the CEL-630 Series remains very simple to use.

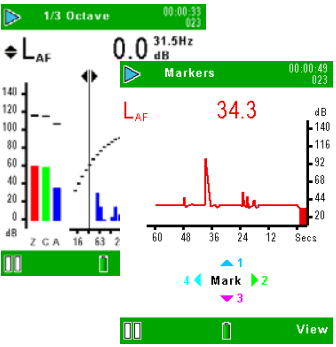


## So Simple to Use

The CEL-630 could not be simpler to use. Just switch the instrument on and it will automatically power up into the setup last used, then go straight to the measurement screen. All screens are colour coded so you know where you are, for example green when measurements are taking place, red when stopped and blue in set-up screens. Significant events can be 'marked' and annotated later via Casella insight data management software. Any erroneous measurements can be removed with the back erase function, preventing any need to repeat the measurement.

## Simultaneous Measurements for Confidence in Results

Standard data 'views' are provided to conveniently display the noise parameters which are specified for workplace or environmental noise standards with customisable views if necessary. Regardless of the view selected, the CEL-630 Series will store all measurement parameters, giving the confidence that no mistakes can be made as all other parameters can be viewed later. Logging models (CEL-632 and CEL-633) provide 2 levels of time history storage; periods at 1 minute to 1 hour and profile data from 1 second to 30 minutes. The time history can be analysed and recalculations performed via insight software (see screenshot right). Environmental parameters (Ln%, e.g. L90) are stored additionally on CEL-631 and CEL-633 models, both in broadband and octave modes as appropriate.



### Technical Specification

#### Standards

IEC61672: 2002 Class 1 and 2, IEC 60651: Type 1 and 2 (1979), IEC60804: Type 1 and 2 (2000), ANSI S1.4: Type 1 and 2 (1983)  
Filters: IEC61260: Class 0, ANSI S1.43: (1996)

Measurement range: 20-140dB RMS (143.3dB peak)  
Total Noise floor: 19dB(A) Class 1, 25dB(A) Class 2  
Time weightings: Fast, Slow and Impulse simultaneously  
Frequency weightings: A, C and Z (un-weighted) simultaneously  
Frequency bands: 11 Octave bands 16Hz-16kHz (B&C models)  
33 Octave bands 12.5Hz-20kHz (C models)  
Amplitude weighting (Q): 3, 4 and 5 simultaneously  
Back erase: Last 10s in cumulative mode (all models)  
Timers: Duration 1s-24h, On/Off timers: 6 sets with selectable times and a repeat function  
Memory: 1GB. (>2.5 years logging when set to 1 second interval, 999 runs). All parameters recorded and accessible via insight

Batteries: 3x AA Alkaline, 10-15 hours dependent on back light  
External power: 9-14V DC at 150mA  
Tripod mount: 1/4" Whitworth socket

Operating Conditions: Relative humidity of 5 to 90% (non condensing)  
Temperature of -10 to +50°C (Class 1) and 0 to 40°C (Class 2) Atmospheric pressure of 65 to 108kPa.

Measured parameters:  
Broadband: LX<sub>Y</sub>, LX<sub>Y</sub>max, LX<sub>Y</sub>min, LX<sub>eq</sub>, LX<sub>peak</sub>, L<sub>avg</sub>, LC-LA, LX<sub>leq</sub>, LTM3, LTM5, LAE  
Octaves & 1/3 octaves: LX<sub>Y</sub>, LX<sub>eq</sub>, LX<sub>Y</sub>max.  
CEL-631 and CEL-633 models additionally store 5x Ln values in broadband and octave modes.  
Cel-632 and CEL-633 models additionally stores time history data, all parameters are logged for period times plus 6 selectable profile parameters (plus 5x Ln values on CEL-633)

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.

### Model Selection

There are 4 models available, please see the model selection table below for the one you require (e.g. CEL-632). Then select your frequency analysis requirements by adding 'A' for broadband, 'B' adds octave band and 'C' adds 1/3 e.g. CEL-632C. Then add your class, '1' for class 1 and '2' for class 2 e.g. CEL-632C1 for a class 1 instrument. Each instrument comes complete with a standard kit case, windshield and calibration certificate.

### Instrument Kits

For an instrument kit add /K1 to the instrument part number e.g. CEL-632C1/K1. Instrument kits include the relevant instrument, acoustic calibrator (CEL-110), USB download cable, batteries, calibration certificates and an executive kit case.

| Application                  | Model Number | Storage of Cumulative Data | Data Markers | Run Duration Timers | Automatic On/Off Timers | Logging of Time History | Statistical Parameters (Ln%) |
|------------------------------|--------------|----------------------------|--------------|---------------------|-------------------------|-------------------------|------------------------------|
| Occupational                 | CEL-630      | ✓                          | ✓            | ✓                   |                         |                         |                              |
| Environmental                | CEL-631      | ✓                          | ✓            | ✓                   |                         |                         | ✓                            |
| Occupational (with logging)  | CEL-632      | ✓                          | ✓            | ✓                   | ✓                       | ✓                       |                              |
| Environmental (with logging) | CEL-633      | ✓                          | ✓            | ✓                   | ✓                       | ✓                       | ✓                            |

### Accessories

CEL-6840 Standard kit case\*  
196030C Executive kit case\*\*  
CEL-251 Microphone Class 1\*  
CEL-252 Microphone Class 2\*  
CEL-110/1 Acoustic Calibrator Class 1\*\*  
CEL-110/2 Acoustic Calibrator Class 2C\*\*  
PC18 Universal power supply  
CMC51 USB download cable\*  
CEL-6718 Lightweight tripod  
CMC73 Portable printer kit (fits in 196030 kit case)

\*included with instrument

\*\*included with instrument kit (with CEL-63XY/K1 where 'X' and 'Y' represent the model numbers)

NoiseMeters Ltd

West End

Muston

YO14 0ES

United Kingdom

Tel: 0845 680 0312

info@noisemeters.co.uk

NoiseMeters Inc

3233 Coolidge Hwy

Berkley

MI 48072

USA

Tel: 888 206 4377

Email: info@noisemeters.com