

# CEL-430

Integrating Sound Level Meter

CASELLA  
CEL



## Powerful Simplicity

# CEL-430

Integrating Sound Level Meter

### KEY FEATURES:

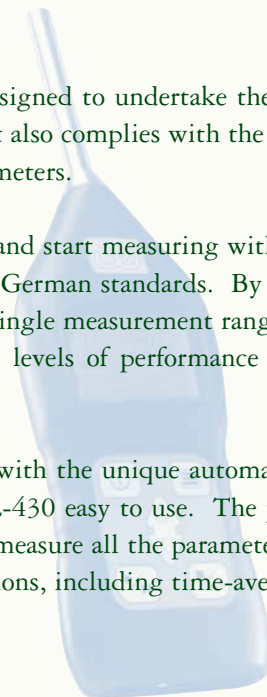
- Designed specifically for Noise at Work measurements.
- Easy to use switch-on-and-go functionality.
- Pre-configured setups for EU, US and German Noise at Work regulations
- Unique automatic calibration function.
- Single measurement range 140dB, no range adjustment required.
- Data storage and download PC software available.
- Class 1 or Class 2 models available.
- Output to recorders.
- Battery life greater than 15 hours.

### INTRODUCTION

The CEL-430 is an easy to use instrument designed to undertake the measurement requirements of Noise at Work regulations. 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 pre-defined setups for either European, US or German standards. 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.

The large display and logical keys combined with the unique automatic-calibration function and single wide range make the CEL-430 easy to use. The pre-configured setups within the instrument simultaneously measure all the parameters required by the action levels in the Noise at Work regulations, including time-average, peak and maximum levels.



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### ADDITIONAL FEATURES



#### Measured Parameters

Standard setups are provided to conveniently select the noise parameters which are specified within each of the international Noise at Work standards. The dB30 software can be used to configure 2 user setups for individual requirements, including other time weightings (F or S) and frequency weightings (A, C or Z).

#### User Interface

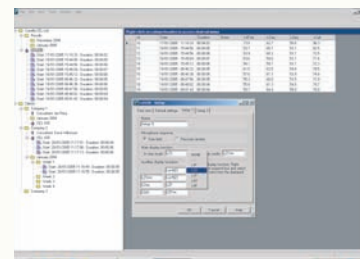
The CEL-430 could not be simpler to use. Just switch the instrument on and it will automatically power up into the setup last used, then go straight to the measurement screen. Either choose to calibrate or just hit the run key and all available noise parameters will be recorded. Simply write down measurements or download them to the dB30 software, as required.

Predefined Setup Parameters		
ISO (Europe)	OSHA (USA)	DIN (Germany)
$L_{AF}$ , $L_{Aeq}$	$L_{AS}$ , $L_{Aavg}$	$L_{AF}$ , $L_{Aeq}$
$L_{Cpk}$ , $L_{AFmx}$	$L_{Aeq}$ , $L_{Zpk}$	$L_{Cpk}$ , $L_{AFmx}$
$L_{Ceq}$	$L_{ASmx}$ , $L_{Ceq}$	$L_{Ceq}$ , $L_{tm3}$
	$L_{ASmn}$	$L_{tm5}$



### dB30 Software

Data can be downloaded to give a comprehensive database of measurement results. Reports can be easily generated or data can be exported to other applications. Results can be stored under an individual's name or to a specific work area. The software also has the ability to configure 2 user setups for the instrument to meet unique requirements. Another feature of the software is the realtime function which allows you to connect directly to the instrument and record data in realtime, making the software ideal for laboratory test requirements.



### Technical Specification

#### CEL-430/1

IEC 61672: 2002 Class 1  
IEC 60651: Type 1 (1979)  
IEC 60804: Type 1 (2000)  
ANSI S1.4: Type 1 (1983)

#### CEL-430/2

IEC 61672: 2002 Class 2  
IEC 60651: Type 2 (1979)  
IEC 60804: Type 2 (2000)  
ANSI S1.4: Type 2 (1983)

Measurement range: 20-140dB RMS (143.3dB peak)  
Noise floor: 18dB (A) Class 1, 25dB (A) Class 2  
Time weightings: Fast, Slow  
Frequency weightings: A, C and Z (un-weighted)  
Amplitude weightings (Q): 3, 4, or 5  
Note that weightings other than for standard setups are only selectable via dB30 software.

Memory: 99 measurements, each with up to a 24 hour duration. All parameters recorded and accessible via dB30.  
Batteries: 4x AA Alkaline  
Battery life: Greater than 15 hours  
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 108 kPa

### Ordering Information

CEL-430/1 Class 1 Integrating Sound Level Meter and windshield.  
CEL-430/2 Class 2 Integrating Sound Level Meter and windshield.

### Instrument Kits

CEL-430/1/K1 Class 1 Integrating Sound Level Meter Kit  
CEL-430/2/K1 Class 2 Integrating Sound Level Meter Kit  
Kits include instrument, kit case, windshield, instruction manual and the appropriate calibrator. The Class 1 kit also includes dB30 software (CEL-6830) and download cable (C6724/2).

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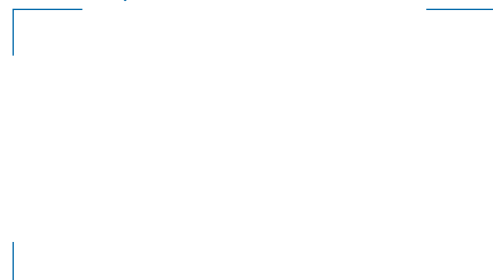
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