



Casella CEL

Casella CEL-633A1 Sound Level Meter

Pine Item #54680

DESCRIPTION:

The CEL-63x Series of sound level meters are the most versatile of meters available; ideal for both noise at work applications (ISO9612, OSHA) and environmental measurements (BS4142). Ensure compliance with workplace noise legislation with the CEL-633 and to assist with the selection of hearing protection.

The CEL-633 is an easy to use instrument designed to undertake the measurement requirements of the 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.

FEATURES:

- 2GB memory for more than 1 year of data storage
- Simultaneous measurement of all parameters with all frequency and time weightings
- Real-time octave and octave measurements
- Level triggered events for transient measurements
- Data markers, back erase function and audio recording
- Single measurement range up to 140dB, no range adjustment required
- Pre-configured set-ups for occupational and environmental measurements

APPLICATIONS:

- Workplace noise assessments according to ISO9612, OSHA 29CFR 1910.95
- Selection of hearing protection
- Calculation of noise exposure
- Ensuring compliance with workplace noise legislation

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Product Specifications

Operator controls	8 buttons for power On/Off + 2 x context sensitive menu selection + 4 navigation + confirm selection
Tripod socket for fixed measurements	Yes via standard camera thread (1/4 size)
Weight including batteries (oz/gm)	10.1 oz (< 291g)
Dimensions w x h x d (in/mm)	2.8 x 10.5 x 1.2 in (71.5x 267.0x 31.0mm) including preamplifier and microphone
Battery Life (hours)	Up to 12 hours without backlight
Batteries	3 x AA Alkaline or NiMH rechargeable types
Operating pressure range	650 to 1080 mbar (65 to 108 kPa)
Operating Temperature Range	14 to 122°F (-10 to 50°C) (Class 1)\n32 to 104°F (0 to 40°C) (Class 2)
Effect of Humidity	Less than ±0.5dB over the range 30 to 90% RH (non-condensing) rel. to value at ref. conditions
Reference Conditions	68°F (20°C) air temperature\n65% Relative Humidity\n1013 mbar (101.325 kPa) atmospheric pressure
Microphone type	½ Free field Electret microphone & preamplifier\nType 1 or Type 2 on a removable CEL-495 preamplifier
Accuracy	ANSI S1.4 & S1.43 IEC 61672-1 2002-5
Frequency filters comply with	ANSI S1.11 and IEC 61260
Total measurement range (dB)	20 to 140
Dynamic range on single measurement span (dB)	120
Input preamplifier/microphone	CEL-495 removable preamp. plus ½ mic. capsule
Noise floor (A weighted dB)	< 20 (Class 1) < 25 (Class 2)
Frequency weightings	Simultaneous A C & Z (unweighted)
Time weightings	Simultaneous Slow Fast and Impulse
Amplitude weightings (Exchange rate)	Simultaneous Q=3 Q=4 and Q=5 dB
Displayed parameters available as per user selected list or using pre-configured setups (depending on model)	Lp Lmx Lmn Lpk\nLeq Lleq LDOD Lavg LAE Ltm3 Ltm5\nLDN LDEN CNEL 5 x LN%
Narrow band real time measurements	(B version) 11 octave bands 16 Hz to 16 kHz\n(C version) 33 third octave bands 12.5 Hz to 20 kHz with cursor readout plus A & C & Z broad band
Display of octave and third octave band levels	Graphical spectrum including broad band values\nWith listing of individual band levels in tabular format
Measurements in octave (& 1/3) band mode include	Lmx and Leq with selected freq and time weightings
Display type	240 x 320 full color dot matrix LCD digital including real-time analog bar graph scale
Data storage for time history logging periods and profiles (depending on model) 1 Gb internal memory	999 run maximum memory long term recording is separated into 24 hr days that can be recombined in Insight software for later analysis and
Timed interval for regular data storage -632 & 633 models	1 sec to 1 hour in 13 fixed intervals for Periods\n1 sec to 30 mins for Profiles
Event capture above user selectable level with audio recording in wav format for identification	User selectable trigger level 40 140 db in 1 dB steps\nWav file stored at hi med or lo resolution
Displayed time span for time history graph on LCD	Last 60 seconds
Signal detected when calibrator placed over microphone at 1 kHz frequency	Calibration level set to 114.0 or 94.0 dB\nWith +/-1 dB span and 0.1 dB resolution by user
External power option (12 Vdc) or via USB 5V line	Yes via universal CEL-PC18 unit

Product Specifications

Analog outputs	AC (and optional DC) via 2.5 mm jack socket
AC output characteristics - (Provided for DAT tape / PC wav file recording or headphone applications)	Approx 0.85V RMS FSD output on selected sound level measurement range.\nMinimum load impedance 22k.
DC output characteristics	0 to 1.3V DC for FSD on selected range.
Digital output of stored result sets	Via USB 2.0 mini B connector to Casella Insight program



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