

CEL-620 Series of wide range sound level meters

Introduction

The **CEL-600** series is a brand new range of quality sound level meters aimed primarily at the industrial hygiene and safety user for the measurement of workplace noise. These new instruments feature the benefits of digital signal processing (DSP) technology to make them powerful yet very easy to use. Various models are available that cover a range of applications and accuracy depending on the individual needs of the user. Single instruments or standard measurement kits are available with acoustic calibrator as required. Instruments can be easily upgraded as necessary. All measurement combinations are made simultaneously.

Applications

- Basic noise surveys
- Machinery measurements
- Selection of hearing protection
- Basic noise control measurements
- Workplace noise surveys for compliance measurements
- Noise mapping applications
- General purpose noise measurements
- Community noise nuisance measurements with CEL-621
- Transportation noise sources
- Heating and ventilation noise sources

Ordering information

Integrating sound level meter

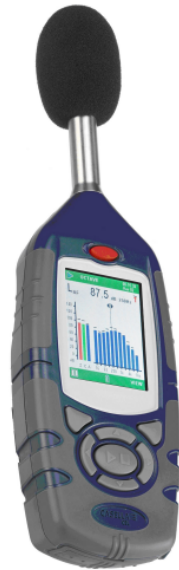
CEL-62X.A
CEL-62X.A/K1

Integrating octave band analyzer

CEL-62X.B
CEL-62X.B/K1

Integrating 1/3 oct. band analyzer

CEL-62X.C
CEL-62X.C/K1



CEL-600 with octave band display

Key benefits

- Wide dynamic range from 20 to 140 dB on a single span
- Available in both ANSI type 1 and type 2 accuracy
- Basic and integrating averaging versions
- Real time octave or 1/3 oct. band analysis in 11 (or 33) simultaneous bands
- Data storage in all models for overall summary results
- Wide range of measurement parameters for many uses
- Full color graphic display provides maximum clarity
- Context sensitive menus for simple navigation with minimum key strokes
- Upgradeable between all models
- Available as complete kits

The all new **CEL-620** sound level meters feature a large 240 x 320 pixel full color graphic display that helps the user interpret the changing noise climate and measure it correctly. All of the popular noise parameters are measured and stored (model dependant) such as current sound level, maximum, minimum, time average, peak and TWA (with optional threshold). Careful design and use of the modern DSP technology allow for the simultaneous capture of these sound parameters with A, C and Z frequency weightings, Slow,

Fast and Impulse time responses over a full 120 dB dynamic range. The **CEL-620** models feature data storage for the collection of overall run summary data plus statistical LN% values in the **CEL-621** models. When connected to a computer the instrument appears as a mass storage device and can be accessed as if it were a USB thumb drive. This allows the measurement data to be easily transferred to popular spreadsheets or other office documents with out the need for proprietary software.

Integrating sound level meter with wrist strap and windscreen

Integrating sound meter kit with acoustic calibrator and carrying case

Integrating octave band analyzer with wrist strap and windscreen

Octave band analyzer kit with acoustic calibrator and carrying case

Integrating 1/3 oct. band analyzer with wrist strap and windscreen

Third oct. band analyzer kit with acoustic calibrator and carrying case

Comparison of functions in CEL-62X Sound level meter range		
	CEL-620	CEL-621
ANSI/IEC accuracy (depending on microphone capsule fitted)	Type 1 with CEL-251 & Type 2 with CEL-252	Type 1 with CEL-251 & Type 2 with CEL-252
Measurement range (dB)	20 - 140	20 - 140
Frequency Weightings (rms.)	A, C & Z	A, C & Z
Time Weightings (rms.)	Slow, Fast & Impulse	Slow, Fast & Impulse
Amplitude Weightings (Q)	3, 4 & 5	3, 4 & 5
Large numeric display	√	√
240 x 320 pixel color graphic LCD	√	√
Measurement Parameters shown on ¼ VGA graphic LCD display	Lp, Lmx, Lmn, Lpk, Leq, Ldod, Lavg, LAE, Ltm3, Ltm5,	Lp, Lmx, Lmn, Lpk, Leq, Ldod, Lavg, LAE, Ltm3, Ltm5,
Additional environmental parameters	---	4 fixed LN% + 1 user LN% values
Current sound level - Lp	√	√
Maximum sound level - Lmx	√	√
Minimum sound level - Lmn	√	√
Peak sound level - Lpk	√	√
Overload and under range icons	√	√
Pause control during run	√	√
Time average sound level – Leq	√ Leq with Q=3	√ Leq with Q=3
Time average sound level - LDOD	√ LDOD with Q=4	√ LDOD with Q=4
Time average sound level -Lavg	√ Lavg with Q=5	√ Lavg with Q=5
Taktmaximal average Ltm3 & 5	√	√
Memory for run summary	√	√
Memory size 2 GBytes	√	√
Maximum number of runs stored	100	100
Frequency analysis -A, C & Z + 11 octave bands 16Hz – 16kHz 33 1/3 oct. bands 12.5Hz – 20 kHz	A version B version C version	A version B version C version
Oct. or 1/3 oct maximum Lmx	√	√
Oct or 1/3 oct band average Leq	√	√
Maximum number of octave or third octave band runs stored	100	100

Technical Specification - General	
Acoustic accuracy:	ANSI S1.4 & S1.43 Type 2 or Type 1, IEC 61672-1 2002-5 Depending on microphone capsule fitted to meter
Octave filters comply with:	ANSI S1.11 1986 Order 3 type 0C, EN61260: 1996 Class 0
Reference Conditions:	68°F (20°C) air temperature, 65% Relative Humidity, 1013 mbar (101.325 kPa) atmospheric pressure.
Operating Temperature Range:	32 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), relative to value at ref. conditions
Operating pressure range:	650 to 1080 mbar (65 to 108 kPa)
Noise floor (A weighted dB):	<25 dB for type 1, <33 dB for type 2
Broadband frequency response (-3dB points):	6 Hz to 20 kHz
Sampling frequency for DSP calculations (Hz):	67,200
Batteries:	3 x AA Alkaline or rechargeable types
Battery Life: (hours)	Up to 20 hours with backlight off
Dimensions w x h x d: (in/mm)	2.8 x 9.0 x 1.2 in (71.5x 229.0x 31.0mm) including fixed preamplifier and microphone
Weight including batteries: (oz/gm)	10.4 oz (< 290g)
Tripod socket for fixed measurements	Yes via standard camera thread (1/4" size)
Operator controls:	Buttons for power On/Off and 2 x context sensitive menu selection + 4 navigation and confirm buttons