CASELLA
CEL

CEL-320 and CEL-360

Dosimeters and Sound Level Meters Including Intrinsically Safe Models

INTRODUCTION

The CEL-320 and CEL-360 series of dosimeters and sound level meters have a wide range of applications from general noise surveys, through the measurement of overall levels of risk in the workplace, to the analysis of environmental noise levels.

These instruments are lightweight, rugged and easy to use. All instruments can be connected directly to printers or to PCs for further data processing.

They have been designed so that after switching the instrument on and calibrating the instrument, only two key presses are required to begin a measurement, it could not be simpler!

KEY FEATURES:

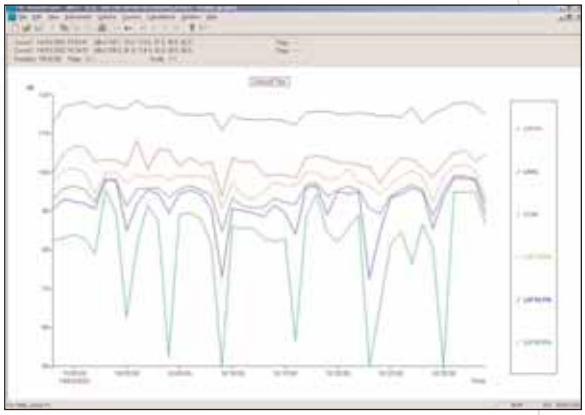
- Dual functionality, can be a sound level meter for work place surveys or dosimeter for an employee to wear.
- Pre- configured setups with international noise at work standards built in.
- Easy to use, no training required.
- Compact and lightweight.
- Rugged design.
- Lockable keypad to prevent tampering.
- Comprehensive software for reports and analysis.
- Long battery life.
- Environmental kit available for site boundary surveys.
- Intrinsically safe models available for use in hazardous atmospheres.

Environmental case for site boundary monitoring

Easily convert the instrument to a Sound Level Meter

APPLICATIONS:

- Personal noise dosimetry
- Noise exposure measurement
- General noise surveys
- Selection of hearing protection by the HML method
- Environmental monitoring



Analyse time history of an employee's exposure

FEATURES:

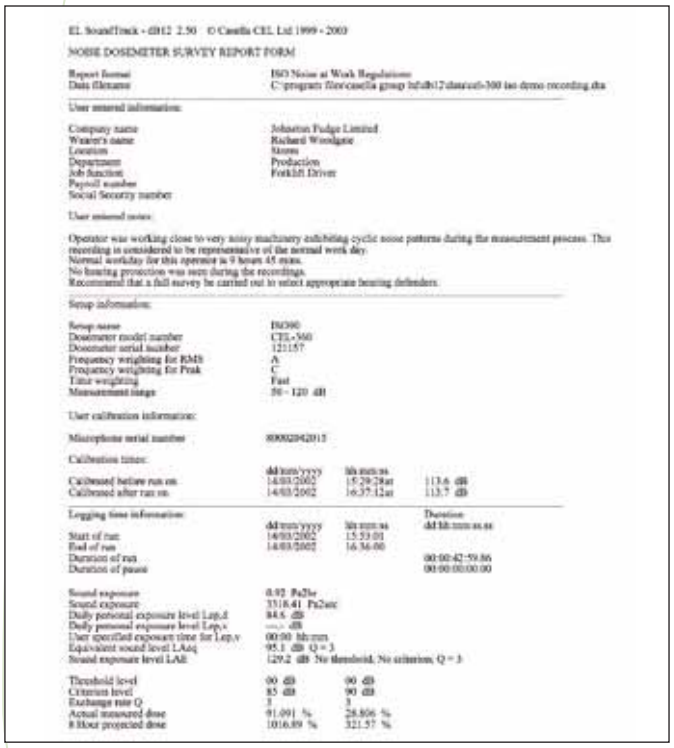
The CEL-300 series of dosimeters are primarily designed for workplace noise applications. Simply perform a field calibration, fit the unit to the operator and start the run. The dosimeter keypad can be locked to prevent tampering during the measurement and once fitted over a belt or in a pocket the unit will collect the noise data automatically. If an employee wears the dosimeter for a working day, the relevant noise exposure values can be read off the instrument at the end of the shift or downloaded as required. The values can then be compared directly to the action levels without any calculations, making noise surveys quick and simple. The CEL-320 personal noise dosimeter is the ideal instrument for compliant dosimetry measurements. Seven pre-programmed measurement setups are provided to suit measurement standards in use around the world. The CEL-360 gives extra functionality such as timer facilities and logging time history of the noise, ideal for analysing the source of an employee's exposure throughout the day.

INTRINSICALLY SAFE (I.S.) MODELS

Intrinsically Safe versions of the instruments are available meeting the requirements of ATEX EEx ia I M1, EEx ia IIC T4 II 1 G, certificate number 05ATEX2027X. This makes Casella CEL I.S. dosimeters and sound level meters particularly suitable for use in hazardous areas such as mines, printing works, petrochemical plants and other areas that require safe monitoring instruments. To order I.S. versions simply add /IS to the part number of the instrument you require.

SOFTWARE:

The dB10 and dB12 software packages are designed to enable quick and easy downloading of data from the CEL-320 and CEL-360 instruments. The software allows the standard setups to be changed or new setups created to suit individual preferences, as well measurement results to be downloaded to a PC. dB10 is the text report version supplied as standard with the CEL-320 kits, whilst dB12 is the graphical and reprocessing package supplied as standard with the CEL-360 kits. This is particularly useful to analyse the effect of parts of an individual's working day on the overall noise exposure. Overall run data can be viewed in a standard report format that allows the user to inspect noise exposure measurements quickly and easily. When measurements have been made with a CEL-360 logging dosimeter, up to 10 profiles may be recorded and inspected to see the time history of the varying levels. A built in word processor is provided as standard to allow for the simple preparation of documents containing all the necessary graphics and text for a comprehensive report.



NOISE DOSIMETER SURVEY REPORT FORM

Software produces noise survey reports

Actual Size

SPECIFICATION

Common Features to CEL-320 and CEL-360 Instruments

Applicable Standards

IEC 61252, ANSI S1.25 Noise dosimeter
IEC 60651 - 1979 Type 2*
IEC 60804 - 2000 Type 2*
ANSI S1.4 - 1983 Type S(1)
ANSI S1.43 - 1997

Measured Parameters

Dosimeter mode:
L, L_{max}, L_{min}, L_{peak}, L_{eq}, L_e, L_{avg}, Dose%, Projected dose%, $L_{EP,d}$, 5x $L_{N\%}$, Pa^2hr, TWA, Duration

Sound Level Meter mode:
L, L_{eq}, L_{avg}, L_e, L_{max}, L_{min}, L_{peak}, Duration

SETTINGS

Total measurement range:	30 to 140 (dB) in 3 ranges, 30 to 100, 50 to 120, 70 to 140
Frequency weightings rms:	A & C
Frequency weightings Peak:	C & Lin (Z)
Time weightings:	Slow, Fast & Impulse
Amplitude weightings:	Q3, 3+4, 3+5 & 3+6
Thresholds:	70 to 90 (dB) 2 settable in 1 dB steps
Criterion:	80 to 90 (dB) 1 settable in 1 dB steps
Runs stored:	50
Default setups:	7 predefined from OSHA, MSHA, DoD, ACGIH, ISO85, ISO90, METER
User defined setups:	13 available using dB10 or dB12 software
Calibration information:	Stores pre and post run calibration date, time and level
Pause during run:	Yes
Security:	Lockout via keypad or software
Output (Printer):	Preformatted report direct to printer via adaptor
Output (P.C.):	Control, Setup, Download, from CEL-320 and CEL-360 to dB10 or dB12 software package
Power supply:	Battery 9V (PP3), I.S. models require Duracell MN1604 (PP3) or Duracell 'Procell'
Battery life:	Typically >35 Hours (>30 Hours on I.S. models)
Size mm (in):	120 x 65 x 30 (4.8 x 2.6 x 1.2)
Weight gm (oz):	280 (9), I.S. models: 380 (12)
Operating temperature range*:	0 - 40°C for an accuracy of <+/-0.5dB

Extra features for CEL-360 models only

Profiles available:
At least 220,000

Parameters per profile:
Up to 10 maximum

Fixed elapsed timers:
5, 10, 15, 30, 60 min, 2, 4, 8, 10, 12, 16, 24 hours

Delay timers:
16 pairs of start and stop times up to 31 days in advance

ORDERING INFORMATION

CEL-320:	Noise dosimeter with cable microphone c/w dB10 control & download software and PC cable
CEL-320X:	Noise dosimeter with cable microphone
CEL-320S:	Sound Level Meter with stalk microphone c/w dB10 control & download software and PC cable
CEL-320SX:	Sound Level Meter with stalk microphone
CEL-360:	Logging Noise dosimeter with cable microphone c/w dB12 control & download software and PC cable
CEL-360X:	Logging Noise dosimeter with cable microphone
CEL-360S:	Logging Sound Level Meter with stalk microphone c/w dB12 control & download software and PC cable
CEL-360SX:	Logging Sound Level Meter with stalk microphone

Intrinsically Safe Models

For Intrinsically Safe (I.S.) models, add /IS to the part number. E.g. CEL-360X/IS

Instrument kits

Complete kits are available with acoustic calibrator (CEL-110/2), kit case (CEL-6682), windshield (CEL-6625) and instruction manuals. For a complete instrument kit add /K1 to the part number. E.g. CEL-360X/IS/K1.

OTHER ACCESSORIES

CEL-6648	Dosimeter belt pouch	CEL-425	Stalk microphone for use as a sound level meter
CEL-90336	USB adaptor and driver software	CEL-425/IS	Intrinsically safe stalk microphone for use as an I.S. sound level meter
C6672/0.5	Printer adaptor for hard copy output	CEL-6681	Cable microphone for use as a dosimeter
CEL-6679	Kit case for 10 dosimeters	CEL-6681/IS	Intrinsically safe cable microphone for use as an I.S. dosimeter

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