CASELLA

dBadge2

dBadge2
Personal Noise Exposure Meter

Ideal for making noise exposure measurements, the dBadge2 is a shoulder worn dose meter that measures all workplace noise parameters simultaneously.

www.casellasolutions.com

dBadge2

Key Features

- Airwave software to check monitoring remotely
- Multiple ‘simulated’ dosimeters
- Full colour display
- Motion Sensing
- 1 second time history profiling
- Pause function
- Measures all noise dose parameters simultaneously

Applications

- Complete shift exposure measurements
- Task based measurements
- Measurements in accordance with CFR 1910.95 (USA), ISO9612:2009, L108 Controlling Noise at Work.
- Selection of hearing protection

Intelligent display shows remaining hours of battery life and memory capacity

3 way chargers can be linked together and also act as a download station

Airwave

Use Airwave software on a mobile device to remotely monitor multiple dosimeters, without disturbing the wearer.

Start, stop and monitor the dosimeter remotely via an iOS or Android device.

(Airwave is available free in the Apple App Store and Google Play Store and is compatible with multiple Casella products)

dBadge2

Simultaneous Measurements

The dBadge2 has a 'multiple simulated dosimeter' capability to display noise exposure results according to differing regional or international protocols. Regardless of what you have displayed, the dBadge2 always measures all parameters together.

- Simultaneous measurement and storage of all noise dose parameters
- Helps ensure the wrong parameters cannot be measured
- Choose how many parameters to display

Simple Operation

With it's two button operation, the dBadge2 couldn't be easier to use. After switching the dBadge2 on, apply the acoustic calibrator and press one button to perform calibration. Then hold both keys down to start a measurement, it couldn't be simpler!

- Lockable keys and display
- Automatic detection of acoustic calibrator
- Colour coded display
- Easy to mount on employees' shoulder

Intrinsically Safe

For use in flammable atmospheres, intrinsically safe models are available for potentially explosive areas such as in the oil and gas, petrochemical and mining industries.

Ex ia IIC T4 Ga

Ex ia IIIC T135°C Da

EX ia I Ma

-20°C to +45°C

Advanced Features

Different models of dBadge2 are available with advanced functions depending on your requirements.

- Audio notes at the start of a run to record measurement details
- Audio recording of level triggered events to identify anomalous noise
- Octave band analysis for the selection of hearing protection
- Motion sensing to assist in measurement validation

NoiseSafe

Download and exposure analysis software

Designed to simplify downloading, reporting and analysing the data from Casella's dBadge2, our NoiseSafe software is free and available with each purchase of our noise dosimeters. Easy analysis of the results from tests allow for compliance to legislation saving yourself time. Should you have any spurious noise readings, these can easily be selected and excluded from exposure results. The software downloads a typical eight-hour workplace recording in just a few seconds. Audio and motion can be analysed to determine if any of the data is erroneous, which can be quickly and easily removed from exposure data, giving confidence in the results.

- Easily configure data and select the required parameters
- Quickly generate professional reports
- Setup dBadge2 units quickly and easily
- Playback recorded audio to identify spurious noise exposure
- Easily analyse time history data to determine where exposure has occurred
- Remove spurious noise exposure with the 'exclusion zone' feature

Technical Specification

Standards:	ANSI S1.25:1991 R2007, IEC 61252 Ed 1.1 (2002-3)
Linear Operating Range:	55.0-140.3 dB (A) RMS
Peak Measurement Range:	90.0-143.3dB (C or Z weighted)
Sound Exposure Range:	0.0- 6,100.0 Pa2Hours
Frequency Weightings:	A, C and Z, Type 2
Time Weightings:	Fast, Slow and Impulse
Exchange Rate:	Q=3 or Q=5dB exchange rates
Threshold and Criterion:	70-90dB in 1dB steps
Operating Temperature Range:	0°C to +40°C (for <±0.5dB error limit) -10°C to +50°C (for <±0.8dB error limit)
Ambient Pressure Range:	<±0.5dB over 85 - 112kPa
Humidity Range:	<± 0.5dB over 30% - 90% (non-condensing),
Storage Temperature Range:	-10°C to +50°C,
Battery:	Internal NiMH, 800mAH
Run Time:	Typically 35 hours using Broadband Mode Typically 15 hours using Octave mode
Charge Time:	<6 Hours from fully discharged
Maximum Run Duration:	24 hours
Maximum number of Runs:	100
Storage Capacity:	Internal USD Flash memory - 300 hours of run data (including 1 second profile data) and up to 90 minutes of event audio recording
PC Interface:	USB 2.0 Full speed 12Mbps via Docking Station
Dimensions:	85L x 54W x 55H mm
Weight:	117g
Environmental I.P. Rating:	IP65 (with permeable air vent)

Ordering Information

dBadge2	dBadge2 Personal Noise Dosimeter
dBadge2Plus	dBadge2 Plus Personal Noise Dosimeter with Audio Recording
dBadge2Pro	dBadge2 Pro Personal Noise Dosimeter with Audio Recording and Real-time Octave Band frequency analysis

All dBadge2 units come complete with a Field Guide and Calibration Certificate. Operation manuals are available to download.
For Intrinsically Safe models add 'IS' into the part number
e.g. dBadge2ISPlus

Instrument Kits

Instrument Kits are available in a kit case that holds up to 10 dBadge2 units. Kits also include the CEL-120/2 Acoustic Calibrator, docking station, USB download cable, NoiseSafe is free to download separately.

Stored Data Sets

The dBadge2 simultaneously records and computes all noise data for every measurement run. The comprehensive set of data containing all of the below parameters is available to view and analyse within the Casella Insight PC application or using the download utility. The Dosimeter Set-ups D1, D2 and D3 define which parameters are displayed on the instrument itself but all values are automatically stored in the memory of the dBadge2 for download.

L_{Avg}

TWA (8hr)	Projected TWA 8hr	
Dose%	Proj Dose %	
L_{AEQ}	L_{CEQ}	L_{AIEQ}
L_{EPd} / LEX, 8h	Proj L_{EPd}/LEX, 8h	
L_{APk} + Time	L_{CPk} + Time	L_{ZPk} + Time
Pa2Hrs	Pa2Secs	

ISO Dose% (using ISO Criterion level)
ISO Proj Dose% (using ISO Criterion level)
Projected Exposure Points (using ISO Criterion level)
Exposure Points (using ISO Criterion level)
Exceedance time (L_{AS} > Exceedance level)
HML (LC-LA)

L_{Cpk} >135 (count)	L_{Cpk} >137 (count)	L_{Cpk} >140 (count)
L_{AFmx} + Time	L_{AFmin} + Time	
L_{ASmx} + Time	L_{ASmin} + Time	
L_{Almx} + Time	L_{Almin} + Time	

L_{AE}

Cumulative Motion Index (expressed as % motion detected during a measurement run).

Model Selection

	dBadge2	dBadge2 Plus	dBadge2 PRO
H-M-L (C-A)	●	●	●
Programmable delay timer	●	●	●
Fixed run timer	●	●	●
Pause function	●	●	●
Wireless*	●	●	●
Time history	●	●	●
Audio recording		●	●
Octave band			●

*Bluetooth 'Smart' Wireless may be disabled in any version.

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