

Compact size + data logger

NOISE DOSIMETER

Model : DS-9200

ISO-9001, CE, IEC1010



LUTRON ELECTRONIC

The Art of Measurement

Compact size + data logger

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Model : DS-9200

FEATURES

* Personal sound exposure meet IEC 61252.
* Frequency and Time weighting are designed to meet IEC 61672 class 2.
* A & C weighting networks comply with standards.
* Combination Dose meter, Data-logger and Sound level meter.
* 0.5" standard microphone head.
* Time weighting (Fast & Slow) dynamic characteristic modes.
* Build Internal calibration .
* User-defined measurement configurations. Selectable Criterion Level,
* Exchange Rate, Threshold, Frequency Weighting, and Response Time setting.
* Condenser microphone for high accuracy & long-term stability.
* Memory function to store the Max. & Min. value.
* Hold functions.
* Can default auto power off or manual power off.
* Noise Dose % · SPL measurements.
* Microcomputer circuit, high accuracy.
* Power by UM4/AAA (1.5 V) x 3 batteries .
* RS232/USB PC COMPUTER interface.
* Heavy duty & compact housing case.

SPECIFICATIONS

Circuit	Custom one-chip of microprocessor LSI circuit.																		
Display	LCD size : 35 x 30 mm. LCD with green backlight (ON/OFF).																		
Measurement Type	SPL : Sound pressure level Dose : test noise exposure																		
Measurement Range	SPL : Auto 35 to 130 dB. Dose : 70 to 130dB																		
Resolution	0.1 dB.																		
Function	dB (A & C frequency weighting), Time weighting (Fast, Slow), Data hold Record (Max., Min.).																		
Accuracy (23 ± 5 °C)	Characteristics of " A " frequency weighting network meet IEC 61672 class 2. Under 94 dB input signal, the accuracy are : <table border="1" style="margin-left: 20px;"> <tr><td>31.5 Hz</td><td>± 3.5 dB</td></tr> <tr><td>63 Hz</td><td>± 2.5 dB</td></tr> <tr><td>125 Hz</td><td>± 2.0 dB</td></tr> <tr><td>250 Hz</td><td>± 1.9 dB</td></tr> <tr><td>500 Hz</td><td>± 1.9 dB</td></tr> <tr><td>1 K Hz</td><td>± 1.4 dB</td></tr> <tr><td>2 K Hz</td><td>± 2.6 dB</td></tr> <tr><td>4 K Hz</td><td>± 3.6 dB</td></tr> <tr><td>8 K Hz</td><td>± 5.6 dB</td></tr> </table> Remark : The above spec. are tested under the environment RF Field Strength less than 3 V/M & frequency less than 30 MHz only.	31.5 Hz	± 3.5 dB	63 Hz	± 2.5 dB	125 Hz	± 2.0 dB	250 Hz	± 1.9 dB	500 Hz	± 1.9 dB	1 K Hz	± 1.4 dB	2 K Hz	± 2.6 dB	4 K Hz	± 3.6 dB	8 K Hz	± 5.6 dB
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Frequency Weighting Network	Characteristics of A & C. A weighting : The characteristic is simulated as "Human Ear Listing" response. Typical, if making the environmental sound level measurement, always select to A weighting. C weighting The characteristic is near the "FLAT" response. Typical, it is suitable for checking the noise of machinery (Q.C. check) & knowing the sound pressure level of the tested equipment.																		

Time weighting (Fast & Slow)	Fast - t = 125 ms * "Fast" range is simulated the human ear response time weighting. Slow - t = 1 s * "Slow" range is easy to get the average values of vibration sound level.
Data hold	To freeze the measurement value.
Function selector SPL DOSE	Auto range : 35 to 130dB. Threshold Level(Thr) : 70 to 90dB in 1dB steps. Criterion Level(Crit) : 80 · 84 · 85 · 90dB. Exchange Rate : 3, 4, 5 or 6 dB
Frequency	31.5 to 8,000 Hz.
Microphone type	Electric condenser microphone.
Microphone	Out size, 12.7 mm DIA. (1/2 inch).
Calibration VR	Build in external calibration VR, easy to calibrate on 94 dB level by screw driver. * Calibrated via external SOUND CALIBRATOR (SC-941, SC-942, optional).
Calibrator	B & K (Briel & kjaer), MULTIFUNCTION ACOUSTIC CALIBRATOR Type 4226.
Advanced setting	* Set clock time (Year/Month/Date,Hour/Minute/ Second) * Set sampling time * Auto power OFF management * Set Criterion level in dB * Set Threshold in dB * Set Exchange rate in dB * Check Memory space. * Set Clear Memory
Over Indication	Show " - - - - ".
Data Hold	Freeze the display reading.
Memory Recall	Maximum & Minimum value.
Sampling Time of Display	Approx. 1 second.
Data Output	RS 232/USB PC computer interface. * Connect the optional RS232 cable,U PCB-02 will get the RS232 plug. * Connect the optional USB cable, USB-01 will get the USB plug.
Power off	Auto shut off saves battery life or manual off by push button.
Operating Temperature	0 to 50 °C.
Operating Humidity	Less than 85% R.H.
Power Supply	* Alkaline or heavy duty DC 1.5 V battery (UM4, AAA) x 3 PCs, or equivalent.
Power Current	Normal operation : Approx. DC 8 mA. * Af LCD backlight on, the power consumption will increase approx. DC 10 mA.
Weight	250 g/ 0.55 LB. (without battery)
Dimension	HWD 116 x 45 x 20 mm (4.6 x 1.8 x 1.2 inch).
Accessories Included	* Instruction manual.....1 PC * Soft carrying case, CA-52A.....1 PC * Microphone1 PC * Clip..... 1 PC
Optional Accessories	* Sound calibrator (94 dB), SC-941. * Sound calibrator (94/114 dB), SC-942. * USB cable, USB-01. * RS232 cable, U PCB-02. * Data Acquisition software, SW-E2005

* Appearance and specifications listed in this brochure are subject to change without notice.