

SD Card, real time data logger, Patent

SOUND LEVEL METER

Model : SL-4023SD

ISO-9001, CE, IEC1010

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**SD Card real time data logger
SOUND LEVEL METER
Model : SL-4023SD**

FEATURES

- * Main functions are designed to meet IEC 61672 class 2.
- * A & C weighting networks comply with standards.
- * 0.5" standard microphone head.
- * Time weighting (Fast & Slow) dynamic characteristic modes.
- * Build External calibration VR.
- * Auto range & Manual range selection.
- * Available for external calibration adjustment.
- * Condenser microphone for high accuracy & long-term stability.
- * Memory function to store the Max. & Min. value.
- * Hold and Peak Hold functions.
- * Real time SD memory card Datalogger, it Built-in Clock and Calendar, real time data recorder, sampling time set from 1 second to 3600 seconds.
- * Manual datalogger is available (set the sampling time to 0 second), during execute the manual datalogger function, it can set the different position (location) No. (position 1 to position 99).
- * Innovation and easy operation, computer is not need to setup extra software, after execute datalogger, just take away the SD card from the meter and plug in the SD card into the computer, it can down load the all the measured value with the time information (year/month/date/ hour/minute/second) to the Excel directly, then user can make the further data or graphic analysis by themselves.
- * SD card capacity : 1 GB to 16 GB.
- * LCD with green light backlight, easy reading.
- * Can default auto power off or manual power off.
- * Data hold, record max. and min. reading.
- * Microcomputer circuit, high accuracy.
- * Power by UM3/AA (1.5 V) x 6 batteries or DC 9V adapter.
- * RS232/USB PC COMPUTER interface.
- * Heavy duty & compact housing case.

GENERAL SPECIFICATIONS

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| Circuit | Custom one-chip of microprocessor LSI circuit. |
| Display | LCD size : 52 mm x 38 mm LCD with green backlight (ON/OFF). |
| Measurement Range | 30 - 130 dB. |
| Resolution | 0.1 dB. |
| Function | dB (A & C frequency weighting), Time weighting (Fast, Slow), Peak hold, 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 : 31.5Hz ± 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 <i>Remark :</i> <i>The above spec. are tested under the environment RF Field Strength less than 3 V/M & frequency less than 30 MHz only.</i> |
| 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. |
| Data hold | To freeze the measurement value. |
| Peak hold | To keep the peak (max.) measurement value. |

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| Time weighting (Fast & Slow) | Fast - t = 200 ms * "Fast" range is simulated the human ear response time weighting. Slow - t = 500 ms * "Slow" range is easy to get the average values of vibration sound level. |
| Range selector | <i>Auto range :</i> 30 to 130 dB. <i>Manual range :</i> 3 range, 30 to 80 dB, 50 to 100 dB, 80 to 130 dB, 50 dB on each step, with over & under range indicating. |
| Frequency | 31.5 to 8,000 Hz. |
| Microphone type | Electric condenser microphone. |
| Microphone size | 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, optional). |
| Calibrator | B & K (Bruel & kjaer), MULTIFUNCTION ACOUSTIC CALIBRATOR 4226. |
| Datalogger Sampling Time | Auto 1 second to 3600 seconds <i>@ Sampling time can set to 1 second, but memory data may loss.</i> |
| Setting range | Manual Push the data logger button once will save data one time. <i>@ Set the sampling time to 0 second.</i> <i>@ Manual mode, can also select the 1 to 99 position (Location) no.</i> |
| Memory Card Advanced setting | SD memory card. 1 GB to 16 GB. * Set clock time (Year/Month/Date, Hour/Minute/ Second) * Decimal point of SD card setting * Auto power OFF management * Set beep Sound ON/OFF * Set sampling time * SD memory card Format |
| 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 UPCB-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 (UM3, AA) x 6 PCs, or equivalent. * DC 9V adapter input. (AC/DC power adapter is optional). |
| Power Current | Normal operation (w/o SD card save data and LCD Backlight is OFF) : <i>Approx. DC 8.5 mA.</i> When SD card save the data but and LCD Backlight is OFF) : <i>Approx. DC 30 mA.</i> * If LCD backlight on, the power consumption will increase approx. 14 mA. |
| Weight | 489 g/1.08 LB. |
| Dimension | 245 x 68 x 45 mm. (9.6 x 2.7 x 1.9 inch). |
| Accessories Included | * Instruction manual..... 1 PC |
| Optional Accessories | * Sound calibrator (94 dB), SC-941. * Sound calibrator (94/114 dB), SC-942. * Sound wind shield ball, SB-01 * SD Card (1 GB) * SD Card (2 GB) * USB cable, USB-01. * RS232 cable, UPCB-02. * Data Acquisition software, SW-U801-WIN. * AC to DC 9V adapter. * Soft carrying case, CA-05A. * Hard carrying case, CA-06. |

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| PATENT | CHINA : ZL 2008 2 0189918.5 ZL 2008 2 0189917.0 Germany : Nr. 20 2008 016 337.4 JAPAN : 3151214 | TAIWAN : M 358970 M 359043 U.S.A. : Pending |
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* Appearance and specifications listed in this brochure are subject to change without notice.