SD card real time data recorder 4 to 20 mA output

SOUND LEVEL DATA RECORDER

Model: MSL-388SD ISO-9001, CE, IEC1010

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The Art of Measurement

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Model: MSL-388SD

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* Frequency and Time weighting are designed to meet IEC 61672 class 2.
* A & C weighting networks comply with standards.
* LCD is dot-matrix with backlight and easy reading.
* Data-logger and Sound level meter.
* 0.5" standard microphone head.
* Time weighting (Fast & Slow) dynamic characteristic modes.
* Condenser microphone for high accuracy & long-term stability.
* Memory function to store the Max. & Min. value.
* Hold functions.
* Real time Datalogger
Records device of an external
memory device (SD memory card) ,Real time Datalogger, it Built-in
Clock and Calendar, real time data recorder, sampling time set
from 5,10,30,60,120,300,600,1800,3600 seconds.
* Manual datalogger is available (set the sampling
time to 0 second).
* 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 download 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.
* Can default auto power off or manual power off.
* 4-20 mA analog output.
* Microcomputer circuit, high accuracy.
* Power by UM4/AAA (1.5 V) x 6 batteries or DC 9V adapter.
* RS232/USB PC COMPUTER interface.
* Heavy duty & compact housing case.

SPECIFICATIONS

<u>SPECIFICATIO</u> Circuit	Custom one-chip of microprocessor LSI					
Circuit	circuit.					
Display	LCD size : 50 mm x 30 mm					
Display	LCD with green backlight (ON/OFF).					
Measurement	SPL : Sound pressure level					
Туре						
Measurement	SPL: 30-80,50-100,80-130, Auto 30 - 130 dB.					
Range						
Resolution	0.1 dB.					
Function	dB (A & C frequency weighting),					
	Time weighting (Fast, Slow),					
	Data hold					
	Record (Max., Min.).					
Accuracy	Characteristics of " A " frequency weighting					
(23 ± 5 °C)	network meet IEC 61672 class 2.					
	Under 94 dB input signal, the accuracy					
	are:					
	31.5 Hz ± 3.5 dB					
	63 Hz ± 2.5 dB					
	125 Hz					
	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					
Frequency	Characteristics of A & C.					
Weighting	A weighting:					
Network	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.					
	level of the tested equipment.					
	To freeze the measurement value.					
Data hold						

Time	Fast - t = 1	125 ms
weighting		nge is simulated the human ear
(FAST &SLOW)		e time weighting.
	Slow - t =	1 s ange is easy to get the average
		of vibration sound level.
Function selector	range :	or vibration sound level.
SPL	30-80	dB, 50-100dB, 80-130dB
		ange: 30~130dB.
Frequency Microphone type	31.5 to 8,0	ou nz. ndenser microphone.
Microphone size		2.7 mm DIA. (1/2 inch).
Calibration VR		ternal calibration (key), easy to
	calibrate or	n 94 dB level by key button.
		d via external SOUND
Calibrator		TOR (SC-941, SC-942, optional). el & kjaer), MULTIFUNCTION
Calibrator		CALIBRATOR Type 4226.
Datalogger	Auto	5,10,30,60,120,300,600,1800,
Sampling Time		3600 seconds
Setting range		@ Sampling time can set to 1 second, but memory data may loss.
	Manual	Push the data logger button
	riariaar	once will save data one time.
		@ Set the sampling time to
		0 second.
Memory device		emory device (AC Adapter only) : ory card. 1 GB to 16 GB.
Advanced	* Set clock	
setting	(Year/M	onth/Date,Hour/Minute/ Second)
	* Set sam	
		ver OFF management
		Sound ON/OFF point of SD card setting
	* SD mem	orv card Format
Over Indication	Show "	
Data Hold		display reading.
Memory Recall		& Minimum value.
Sampling Time of Display	Approx. 1	second.
Data Output	RS 232/US	B PC computer interface.
	* Connect	the optional RS232 cable, UPCB-02 will
	* Connect get the F	the optional RS232 cable, UPCB-02 will RS232 plug.
	* Connect get the F * Connect	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get
	* Connect get the F * Connect the USB	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get
Data Output Power off	* Connect get the F * Connect the USB	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by
Data Output Power off Operating	* Connect get the F * Connect the USB Auto shut of	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n.
Data Output Power off Operating Temperature	* Connect get the F * Connect the USB Auto shut opush butto 0 to 50 °C.	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n.
Power off Operating Temperature Operating	* Connect get the F * Connect the USB Auto shut of push butto	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n.
Data Output Power off Operating Temperature	* Connect get the F * Connect the USB Auto shut opush butto 0 to 50 °C.	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n.
Power off Operating Temperature Operating Humidity	* Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. Less than 8 * Alkaline (UM4, A	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n. B5% R.H. or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent.
Power off Operating Temperature Operating Humidity	* Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. Less than E * Alkaline (UM4, A * DC 9V ac	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n. B5% R.H. or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent. dapter input. (AC/DC power
Power off Operating Temperature Operating Humidity Power Supply	* Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. Less than 8 * Alkaline (UM4, A * DC 9V ar adapter	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n. B5% R.H. or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent. dapter input. (AC/DC power is optional).
Power off Operating Temperature Operating Humidity	* Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. Less than 8 * Alkaline (UM4, A * DC 9V are adapter Normal ope	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n. B5% R.H. or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent. dapter input. (AC/DC power
Power off Operating Temperature Operating Humidity Power Supply	* Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. Less than 8 * Alkaline (UM4, A * DC 9V and adapter Normal ope LCD Backlig, Approx.	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n. 35% R.H. or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent. dapter input. (AC/DC power is optional). eration (w/o SD card save data and ght is OFF): DC 16 mA.
Power off Operating Temperature Operating Humidity Power Supply	* Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. Less than E * Alkaline (UM4, A * DC 9V and adapter Normal ope LCD Backlig Approx. When SD c	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n. 85% R.H. or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent. dapter input. (AC/DC power is optional). eration (w/o SD card save data and ght is OFF) :
Power off Operating Temperature Operating Humidity Power Supply	* Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. Less than E * Alkaline (UM4, A * DC 9V at adapter Normal opt LCD Backling Approx. When SD cis OFF):	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n. B5% R.H. or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent. dapter input. (AC/DC power is optional). eration (w/o SD card save data and ght is OFF): DC 16 mA. ard save the data but and LCD Backlight
Power off Operating Temperature Operating Humidity Power Supply	* Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. Less than 8 * Alkaline (UM4, A * DC 9V and adapter Normal ope LCD Backling Approx. When SD co is OFF): Approx.	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n. B5% R.H. or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent. dapter input. (AC/DC power is optional). eration (w/o SD card save data and ght is OFF): DC 16 mA. ard save the data but and LCD Backlight DC 16 mA.
Power off Operating Temperature Operating Humidity Power Supply Power Current	* Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. Less than 8 * Alkaline (UM4, A DC 9V and adapter Normal ope LCD Backling Approx. When SD color is OFF): Approx. * If LCD be increase	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. Off saves battery life or manual off by n. B5% R.H. or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent. dapter input. (AC/DC power is optional). eration (w/o SD card save data and ght is OFF): DC 16 mA. ard save the data but and LCD Backlight DC 16 mA. acklight on, the power consumption will approx. DC 8 mA.
Power off Operating Temperature Operating Humidity Power Supply Power Current Weight	* Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. Less than 8 * Alkaline (UM4, A * DC 9V and adapter Normal ope LCD Backlig Approx. When SD c is OFF): Approx. * If LCD be increase 250 g/ 0.55	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. Off saves battery life or manual off by n. B5% R.H. Or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent. dapter input. (AC/DC power is optional). eration (w/o SD card save data and ght is OFF): DC 16 mA. Backlight on, the power consumption will approx. DC 8 mA. 5 LB. (without battery)
Power off Operating Temperature Operating Humidity Power Supply Power Current	* Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. Less than 8 * Alkaline (UM4, A * DC 9V and adapter Normal ope LCD Backling Approx. When SD of is OFF): Approx. * If LCD basincrease 250 g/ 0.59 132 x 80 x	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. Off saves battery life or manual off by m. B5% R.H. or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent. dapter input. (AC/DC power is optional). eration (w/o SD card save data and ght is OFF): DC 16 mA. ard save the data but and LCD Backlight DC 16 mA. acklight on, the power consumption will approx. DC 8 mA. 5 LB. (without battery) 32 mm.
Data Output Power off Operating Temperature Operating Humidity Power Supply Power Current Weight Dimension	* Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. Less than E * Alkaline (UM4, A * DC 9V at adapter Normal opt LCD Backlight Approx. When SD of is OFF): Approx. * If LCD backlight increase 250 g/ 0.51 132 x 80 x (5.2 x 3.1	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n. B5% R.H. or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent. dapter input. (AC/DC power is optional). eration (w/o SD card save data and ght is OFF): DC 16 mA. ard save the data but and LCD Backlight DC 16 mA. acklight on, the power consumption will approx. DC 8 mA. 5 LB. (without battery) 32 mm. x 1.3 inch).
Data Output Power off Operating Temperature Operating Humidity Power Supply Power Current Weight Dimension Accessories	* Connect get the F * Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. Less than E * Alkaline (UM4, A * DC 9V and adapter Normal ope LCD Backling Approx. * If LCD backling Approx. * If LCD backling * A	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n. B5% R.H. or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent. dapter input. (AC/DC power is optional). eration (w/o SD card save data and ght is OFF): DC 16 mA. ard save the data but and LCD Backlight DC 16 mA. acklight on, the power consumption will approx. DC 8 mA. 5 LB. (without battery) 32 mm. x 1.3 inch). on manual
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Data Output Power off Operating Temperature Operating Humidity Power Supply Power Current Weight Dimension Accessories Included Optional	* Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. Less than E * Alkaline (UM4, A * DC 9V at adapter Normal opt LCD Backlin Approx. * If LCD ba is OFF): Approx. * If LCD ba 132 x 80 x (5.2 x 3.1 * Instructi Plug of 4 * Micopho * AC to DC * Sound ca * Sound ca * Sound ca	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n. B5% R.H. or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent. dapter input. (AC/DC power is optional). eration (w/o SD card save data and ght is OFF): DC 16 mA. eard save the data but and LCD Backlight DC 16 mA. acklight on, the power consumption will approx. DC 8 mA. 5 LB. (without battery) 32 mm. x 1.3 inch). on manual
Data Output Power off Operating Temperature Operating Humidity Power Supply Power Current Weight Dimension Accessories Included Optional	* Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. * Alkaline (UM4, A * DC 9V ac adapter Normal ope LCD Backlic Approx. * If LCD backlic Approx. * Sound Company Control Control * Sound company Control * Sound contr	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n. B5% R.H. or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent. dapter input. (AC/DC power is optional). eration (w/o SD card save data and ght is OFF): DC 16 mA. ard save the data but and LCD Backlight DC 16 mA. acklight on, the power consumption will approx. DC 8 mA. S LB. (without battery) 32 mm. x 1.3 inch). to to 20 mA output (SKT-AS385)
Data Output Power off Operating Temperature Operating Humidity Power Supply Power Current Weight Dimension Accessories Included Optional	* Connect get the F * Connect the USB Auto shut of push butto 0 to 50 °C. * Alkaline (UM4, A * DC 9V ac adapter Normal ope LCD Backlic Approx. * If LCD backlic Approx. * Instructic Plug of 4 * Micophole AC to DC * Sound call Sound acceptable Sound with Sound acceptable	the optional RS232 cable, UPCB-02 will RS232 plug. the optional USB cable, USB-01 will get plug. off saves battery life or manual off by n. B5% R.H. or heavy duty DC 1.5 V battery AA) x 6 PCs, or equivalent. dapter input. (AC/DC power is optional). eration (w/o SD card save data and ght is OFF): DC 16 mA. eard save the data but and LCD Backlight DC 16 mA. eacklight on, the power consumption will approx. DC 8 mA. 5 LB. (without battery) 32 mm. x 1.3 inch). on manual

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

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