



# BEARING & TOOL CENTRE



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## Our Sister Concern : RELIEF SERVICE CENTRE

Repairs, Removal of Jaw Error, Bore Gauge Extension, Instrument Modifications & Spares

## Quotation

### 85 | Sound Level Meter – Lutron & ACD Make

Model	4001	4010	4011	4012	4013	4022	SC-941	S4000	SC-942	M&W
Range	35-130	30-130 b	35-130	35-130	30-130	3 Range		35-150	2 Range	30-130
Least count	0.1 db	0.1 db	0.1 db	0.1 db	0.1 db	0.1 db	0.1 db		0.1 db	1.5db
Rs.	6700	5000	9200	10500	4000	15850	15450	8400	15950	4200
Calibration	3500	3500	3500	3500	3500	3500	-		-	-
Catalog	Page – 3	Page – 5	Page – 7	Page – 9,11	Page – 13	Page – 15	Page – 17	Page – 18	Page – 17	

### 85 – 1 | Digital Sound Level Meter - Metrix+ @ With 10% Discount | Model | Rs | Catalog

1	30 ~ 130 db A & C Weighting	SL 4001	2900	Page -18
2	30 ~ 130 db A & C Weighting P C Interface Competible	SL 4005	3500	Page -18
3	PC Interface RS 232C + Software + USB Adaptor for SL 4005		3400	Page -18

## Note : No any warranty in all above Testing Instruments

## Terms & Conditions –

- Goods offered - Subject to Prior Sale
- Price Validity: "15 Days from Date of Quotation"
- C.S.T 2% extra against form C. Otherwise 5% without form C For Out of Gujarat Sales only.
- VAT 5% extra for Sales within Gujarat. Prices Ex-Godown Ahmedabad.
- Payment against Proforma Invoice, Packing, Forwarding & Freight extra.
- **Bank Detail** – Kotak Mahindra Bank Ltd.
- **Branch** – Shivranjini
- **Bank IFSC Code** - KKBK 0000 810
- **Bank Account No.** 08102 00000 2689
- Note - While making payment online do mention your Company's name.
- TIN NO 24070901229 , CST No. 24570901229
- We are looking forward to your valued orders.

# LUTRON MAKE

SL-4010 LUTRON SOUND LEVEL METER. Range : 30 ~ 130 dB, 3 ranges. 50dB on each step	
SL-4030 SAME AS ABOVE but with 94dB inbuilt Calibration	
SL-4001 LUTRON SOUND LEVEL METER 3 ranges Range : 35 ~ 130 dB (Typical 30dB ~ 130dB)	
SL-4011 LUTRON SOUND LEVEL METER all same as above	
SL-4012 LUTRON SOUND LEVEL METER all same as above	
SL-4013 LUTRON with Separate Sound Probe same as SL-4010	All
SL-4022 LUTRON CLASS 'A' SOUND LEVEL METER Ranges : 3 Ranges (30~70dB, 60~100dB, 90~130dB)	
AZ-8925 SOUND LEVEL METER Range : 40dB ~ 130dB Auto Ranging	
SC-941 LUTRON SOUND CALIBRATOR 0.5" MICROPHONE Sound Pressure Level : 94dB 0.8 dB	
SC-942 LUTRON All same as SC-941 but with Sound Pressure level (2 Ranges) : 94dB +0.75dB / 114dB +0.9dB .	
ND-9 HATCO Sound Pressure Level : 94dB +0.5dB / 114dB +0.5dB.	

*IEC 61672 class 2*

# **SOUND LEVEL METER**

**Model : SL-4001**

*ISO-9001, CE, IEC1010*



**LUTRON ELECTRONIC**



***The Art of Measurement***

## SPECIFICATIONS

Display	18mm (0.7") LCD (Liquid Crystal Display), 3 1/2 digits.
Function	dB (A & C frequency weighting), Time weighting(Fast, Slow), Max. hold, AC & DC output.
Measurement Range	3 ranges, 30 to 130 dB, input signal only.
Resolution	0.1 dB.
Accuracy (23 ± 5 °C)	Frequency weighting meet IEC 61672 class 2, calibrating input signal on 94 dB(31.5 Hz to 8 kHz), then the accuracy of frequency weighting is specified as following: <i>31.5 Hz - ± 3.5 dB, 63 Hz - ± 2.5 dB, 125 Hz - ± 2.0 dB</i> <i>250 Hz - ± 1.9 dB, 500 Hz - ± 1.9 dB, 1 kHz - ± 1.4 dB</i> <i>2 kHz - ± 2.6 dB, 4 kHz - ± 3.6 dB, 8 kHz - ± 5.6 dB</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.
Frequency	31.5 Hz to 8,000 Hz.
Calibrator	B & K (Bruel & kjaer), multi-fuction acoustic calibrator, model : 4226.
Microphone type	Electric condenser microphone.
Size of microphone	1/2 inch standard size.
Range selector	30 to 80 dB, 50 to 100 dB, 80 to 130 dB, 50 dB on each step, with over & under range indicating.
Time weighting (Fast & Slow)	Fast - t = 200 ms, Slow - t = 500 ms, * "Fast" range is simulated the human ear response time weighting. "Slow" range is easy to get the average values of vibration sound level.
Calibration	* Build in external calibration VR, easy to calibrate by external screw driver. * Internal oscillation system, 1 KHz sine wave generator.
Output Signal	AC output - AC 0.5 Vrms corresponding to each range step. DC output - DC 0.3 to 1.3 VDC, 10 mV per dB. Out put impedance - 600 ohm.
Output terminal	3.5 mm phone output terminal is provided for connection with analyzer, level recorder, tape recorder.
Operating Temp.	0 °C to 50 °C ( 32 °F to 122 °F ).
Operating Humidity	Less than 80% RH
Power Supply	006P DC 9V battery(heavy duty type).
Power Consumption	Approx. DC 6mA.
Dimension	205 x 80 x 35 mm ( 8.1 x 3.2 x 1.4 inch).
Weight	280 g/0.62 LB (including battery).
Standard Accessories	Instruction Manual ..... 1 PC. Calibration screw driver..... 1 PC.
Optional Accessories	94 dB Sound Calibrator, Model : SC-941.
	94 dB/114 dB Sound Calibrator, Model : SC-942.
	Hard carrying case, Model : CA-06.

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

0711-SL4001



*IEC 61672 class 2, economical type*

# **SOUND LEVEL METER**

**Model : SL-4010**

*ISO-9001, CE, IEC1010*



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***The Art of Measurement***

## FEATURES

* Large LCD display, easy to read.	* LCD display for low power consumption & clear read-out even in bright ambient light condition.
* Characteristic of " A " frequency weighting network are designed to meet IEC 61672 class 2.	
* " Fast " time weighting characteristic mode.	* Used the durable, long-lasting components, including a strong, light weight ABS-plastic housing case.
* Build in adj. VR is available for easy calibration.	
* Condenser microphone for high accuracy & long-term stability.	* Small and light weight design allow one hand operation.
* Hold function to freeze the display value.	* Low battery indicator.
* Warning indicator for over and under range.	* High quality with economical cost.

## SPECIFICATIONS

Display	18 mm ( 0.7" ) LCD ( Liquid Crystal Display ), 3 1/2 digits.
Measurement Range	35 to 130 dB, 3 ranges : <i>range 1 - 35 to 80 dB, range 2 - 50 to 100 dB, range 3 - 80 to 130 dB,</i> <i>Each range with warning indicator for over &amp; under load.</i>
Resolution	0.1 dB.
Measurement Frequency	31.5 Hz to 8,000 Hz.
Frequency Weighting Network	Characteristics of " A " frequency weighting network. <i>The " A weighting " characteristic is simulated as "Human Ear Listing" response.</i>
Time Weighting	Default to " Fast " time weighting characteristics. <i>" Fast time weighting " is simulated the human ear response character.</i>
Accuracy (23 ± 5 °C)	Characteristics of " A " frequency weighting network meet IEC 61672 class 2. Under 94 dB input signal, the accuracy are : <i>31.5 Hz - ± 3.5 dB, 63 Hz - ± 2.5 dB, 125 Hz - ± 2.0 dB</i> <i>250 Hz - ± 1.9 dB, 500 Hz - ± 1.9 dB, 1 kHz - ± 1.4 dB</i> <i>2 kHz - ± 2.6 dB, 4 kHz - ± 3.6 dB, 8 kHz - ± 5.6 dB</i>
Calibrator	B & K (Briel & kjaer), multi-fuction acoustic calibrator, model : 4226.
Microphone type	Electric condenser microphone.
Size of microphone	1/2 inch standard size.
Calibration VR	Build in external calibration VR, easy to calibrate on 94 dB level by screw driver.
Data Hold	Hold function to freeze the display value.
Operating Temp.	0 °C to 50 °C ( 32 °F to 122 °F ).
Operating Humidity	Less than 80% RH
Power Supply	006P DC 9V battery ( heavy duty type ).
Power Consumption	Approx. DC 6 mA.
Dimension	225 x 70 x 28 mm ( 8.9 x 2.8 x 1.1 inch).
Weight	250 g/0.55 LB ( including battery ).
Standard Accessories	Instruction Manual ..... 1 PC.
Optional Accessories	94 dB Sound Calibrator, Model : SC-941. 94 dB/114 dB Sound Calibrator, Model : SC-942. Hard carrying case, Model : CA-06.

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

0711-SL401

*IEC 61672 class 2*

# **SOUND LEVEL METER**

Model : SL-4011 *ISO-9001, CE, IEC1010*





# DIGITAL SOUND LEVEL METER

## Model : SL-4011

### FEATURES

* Large LCD display, easy to read.	* Max. Hold function for stored the maximum value on display.
* Frequency weighting networks are designed to meet the IEC 61672 class 2.	* Warning indicator for over and under load.
* A & C weighting networks are conformity to standards.	* LCD display for low power consumption & clear read-out even in bright ambient light condition.
* Time weighting(FAST & SLOW) dynamic characteristic modes.	* Used the durable, long-lasting components, including a strong, light weight ABS-plastic housing case.
* AC/DC output for system expansion.	* Small and light weight design allow one hand operation.
* Build in adj. VR is available for easy calibration.	* Low battery indicator.
* Condenser microphone for high accuracy & long-term stability.	

### SPECIFICATIONS

Display	18mm (0.7") LCD (Liquid Crystal Display), 3 1/2 digits.
Function	dB (A & C frequency weighting), Time weighting(Fast, Slow), Max. hold, AC & DC output.
Measurement Range	3 ranges, 30 to 130 dB, input signal only.
Resolution	0.1 dB.
Accuracy (23 ± 5 °C)	Frequency weighting meet IEC 61672 class 2, calibrating input signal on 94 dB(31.5 Hz to 8 kHz), then the accuracy of frequency weighting is specified as following: 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 kHz - ± 1.4 dB 2 kHz - ± 2.6 dB, 4 kHz - ± 3.6 dB, 8 kHz - ± 5.6 dB
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.
Frequency	31.5 Hz to 8,000 Hz.
Calibrator	B & K (Bruel & kjaer), multi-fuction acoustic calibrator, model : 4226.
Microphone type	Electric condenser microphone.
Size of microphone	1/2 inch standard size.
Range selector	30 to 80 dB, 50 to 100 dB, 80 to 130 dB, 50 dB on each step, with over & under range indicating.
Time weighting (Fast & Slow)	Fast - t = 200 ms, Slow - t = 500 ms, * "Fast" range is simulated the human ear response time weighting. "Slow" range is easy to get the average values of vibration sound level.
Calibration	* Build in external calibration VR, easy to calibrate by external screw driver.
Output Signal	AC output - AC 0.5 Vrms corresponding to each range step. DC output - DC 0.3 to 1.3 VDC, 10 mV per dB. Out put impedance - 600 ohm.
Output terminal	3.5 mm phone output terminal is provided for connection with analyzer, level recorder, tape recorder.
Operating Temp.	0 °C to 50 °C ( 32 °F to 122 °F ).
Operating Humidity	Less than 80% RH
Power Supply	006P DC 9V battery(heavy duty type).
Power Consumption	Approx. DC 6mA.
Dimension	255 x 70 x 28 mm (10.0x2.8x1.1 inch).
Weight	280 g/0.62 LB (including battery).
Standard Accessories	Instruction Manual ..... 1 PC.
Optional Accessories	94 dB Sound Calibrator, Model : SC-941. 94 dB/114 dB Sound Calibrator, Model : SC-942. Hard carrying case, Model : CA-06.

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0807-SL4011



*Auto range, AC output, Memory*

# **SOUND LEVEL METER**

**Model : SL-4012**

*ISO-9001, CE, IEC1010*



## **FEATURES**

- \* Large LCD display, easy to read.
- \* Frequency weighting meet IEC 61672 class 2.
- \* Auto range & manual range.
- \* A & C frequency weighting.
- \* Fast & Slow time weighting
- \* AC output for system expansion.
- \* RS232 computer interface.
- \* External calibration VR.
- \* Hold & Memory record.
- \* High accuracy condenser microphone
- \* Peak Hold.
- \* Over and under load indicator.
- \* LCD display.
- \* Durable, strong light weight ABS-plastic housing case.



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**Auto range, AC output, Memory**

# DIGITAL SOUND LEVEL METER

**Model : SL-4012**

## FEATURES

* Large LCD display, easy to read.	* Hold & Memory record ( max., min. )
* Frequency weighting networks are designed to meet IEC 61672 class 2.	* Condenser microphone for high accuracy & stability.
* Auto range & manual range.	* Peak Hold function for stored the maximum value.
* A & C weighting networks are conformity to standards.	* Warning indicator for over and under load.
* Fast & Slow dynamic characteristic modes.	* LCD display for low power consumption & clear read-out even in bright ambient light condition.
* AC output for system expansion.	* Used the durable, long-lasting components, including a strong light weight ABS-plastic housing case.
* RS232/USB computer interface.	* Compact and light weight plastic housing.
* Build in adj. VR is available for easy calibration.	

## SPECIFICATIONS

Display	52 mm x 32 mm LCD (Liquid Crystal Display), 5 digits.
Function	dB (A & C frequency weighting), Time weighting(Fast, Slow), Hold, Memory ( max. & min. ), Peak hold, AC & RS232 output.
Measurement Range	30 - 130 dB.
Resolution	0.1 dB.
Accuracy (23 ± 5 °C)	Frequency weighting meet IEC 61672 class 2, calibrating input signal on 94 dB(31.5 Hz to 8 kHz), then the accuracy of frequency weighting is specified as following: 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 kHz - ± 1.4 dB 2 kHz - ± 2.6 dB, 4 kHz - ± 3.6 dB, 8 kHz - ± 5.6 dB
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.
Frequency	31.5 Hz to 8,000 Hz.
Calibrator	B & K (Bruel & kjaer), multi-fuction acoustic calibrator, model : 4226.
Microphone type	Electric condenser microphone.
Size of microphone	1/2 inch standard size.
Range selector	Auto range : 30 to 130 dB. Manual range : 3 range, 30 to 80 dB, 50 to 100 dB, 80 to 130 dB, 50 dB on each step, with over & under range indicating.
Time Weighting (Fast & Slow)	Fast - t = 200 ms, Slow - t = 500 ms, * "Fast" range is simulated the human ear response time weighting. "Slow" range is easy to get the average values of vibration sound level. * The "Fast" & "Slow" time weighting range are designed to IEC 61672 class 2 requirement.
Output Signal	* AC output - AC 0.5 Vrms corresponding to each range step. Output impedance - 600 ohm. * RS232 output.
Output terminal	Terminal 1 : RS232 computer interface terminal. Terminal 2 : AC output terminal. * Terminal socket size : 3.5 mm dia. phone socket.
Calibration VR	Build in external calibration VR, easy to calibrate on 94 dB level by screw driver.
Operating Temp.	0 °C to 50 °C ( 32°F to 122°F ).
Operating Humidity	Less than 80% RH.
Power Supply	006P DC 9V battery ( Alkaline or heavy duty type ).
Power Consumption	Approx. DC 6mA.
Dimension	268 x 68 x 29 mm ( 10.6 x 2.7 x 1.1 inch).
Weight	295 g/0.65 LB.
Standard Accessories	Instruction Manual .....1 PC.
Optional	Sound Calibrator, model : SC-941 ( 94 dB ). SC-942 ( 94dB, 114 dB ). Carrying case : CA-06 RS232 cable, Model : UPCB-02 USB cable, Model : USB-01 Application software, Model : SW-U801-WIN

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0711-SL4012

*Auto range, AC output, Memory*

# **SOUND LEVEL METER**

**Model : SL-4012**

*ISO-9001, CE, IEC1010*



## **FEATURES**

- \* Large LCD display, easy to read.
- \* Frequency weighting meet IEC 61672 class 2.
- \* Auto range & manual range.
- \* A & C frequency weighting.
- \* Fast & Slow time weighting
- \* AC output for system expansion.
- \* RS232 computer interface.
- \* External calibration VR.
- \* Hold & Memory record.
- \* High accuracy condenser microphone
- \* Peak Hold.
- \* Over and under load indicator.
- \* LCD display.
- \* Durable, strong light weight ABS-plastic housing case.



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**DIGITAL SOUND LEVEL METER****Model : SL-4012****FEATURES**

* Large LCD display, easy to read.	* Hold & Memory record ( max., min. )
* Frequency weighting networks are designed to meet IEC 61672 class 2.	* Condenser microphone for high accuracy & stability.
* Auto range & manual range.	* Peak Hold function for stored the maximum value.
* A & C weighting networks are conformity to standards.	* Warning indicator for over and under load.
* Fast & Slow dynamic characteristic modes.	* LCD display for low power consumption & clear read-out even in bright ambient light condition.
* AC output for system expansion.	* Used the durable, long-lasting components, including a strong light weight ABS-plastic housing case.
* RS232/USB computer interface.	* Compact and light weight plastic housing.
* Build in adj. VR is available for easy calibration.	

**SPECIFICATIONS**

Display	52 mm x 32 mm LCD (Liquid Crystal Display), 5 digits.
Function	dB (A & C frequency weighting), Time weighting(Fast, Slow), Hold, Memory ( max. & min. ), Peak hold, AC & RS232 output.
Measurement Range	30 - 130 dB.
Resolution	0.1 dB.
Accuracy (23 ± 5 °C)	Frequency weighting meet IEC 61672 class 2, calibrating input signal on 94 dB(31.5 Hz to 8 kHz), then the accuracy of frequency weighting is specified as following: 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 kHz - ± 1.4 dB 2 kHz - ± 2.6 dB, 4 kHz - ± 3.6 dB, 8 kHz - ± 5.6 dB
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.
Frequency	31.5 Hz to 8,000 Hz.
Calibrator	B & K (Bruel & kjaer), multi-fuction acoustic calibrator, model : 4226.
Microphone type	Electric condenser microphone.
Size of microphone	1/2 inch standard size.
Range selector	Auto range : 30 to 130 dB. Manual range : 3 range, 30 to 80 dB, 50 to 100 dB, 80 to 130 dB, 50 dB on each step, with over & under range indicating.
Time Weighting (Fast & Slow)	Fast - t = 200 ms, Slow - t = 500 ms, * "Fast" range is simulated the human ear response time weighting. "Slow" range is easy to get the average values of vibration sound level. * The "Fast" & "Slow" time weighting range are designed to IEC 61672 class 2 requirement.
Output Signal	* AC output - AC 0.5 Vrms corresponding to each range step. Output impedance - 600 ohm. * RS232 output.
Output terminal	Terminal 1 : RS232 computer interface terminal. Terminal 2 : AC output terminal. * Terminal socket size : 3.5 mm dia. phone socket.
Calibration VR	Build in external calibration VR, easy to calibrate on 94 dB level by screw driver.
Operating Temp.	0 °C to 50 °C ( 32°F to 122°F ).
Operating Humidity	Less than 80% RH.
Power Supply	006P DC 9V battery ( Alkaline or heavy duty type ).
Power Consumption	Approx. DC 6mA.
Dimension	268 x 68 x 29 mm ( 10.6 x 2.7 x 1.1 inch).
Weight	295 g/0.65 LB.
Standard Accessories	Instruction Manual .....1 PC.
Optional	Sound Calibrator, model : SC-941 ( 94 dB ). SC-942 ( 94dB, 114 dB ). Carrying case : CA-06 RS232 cable. Model : UPCB-02 Application software, Model : SW-U801-WIN

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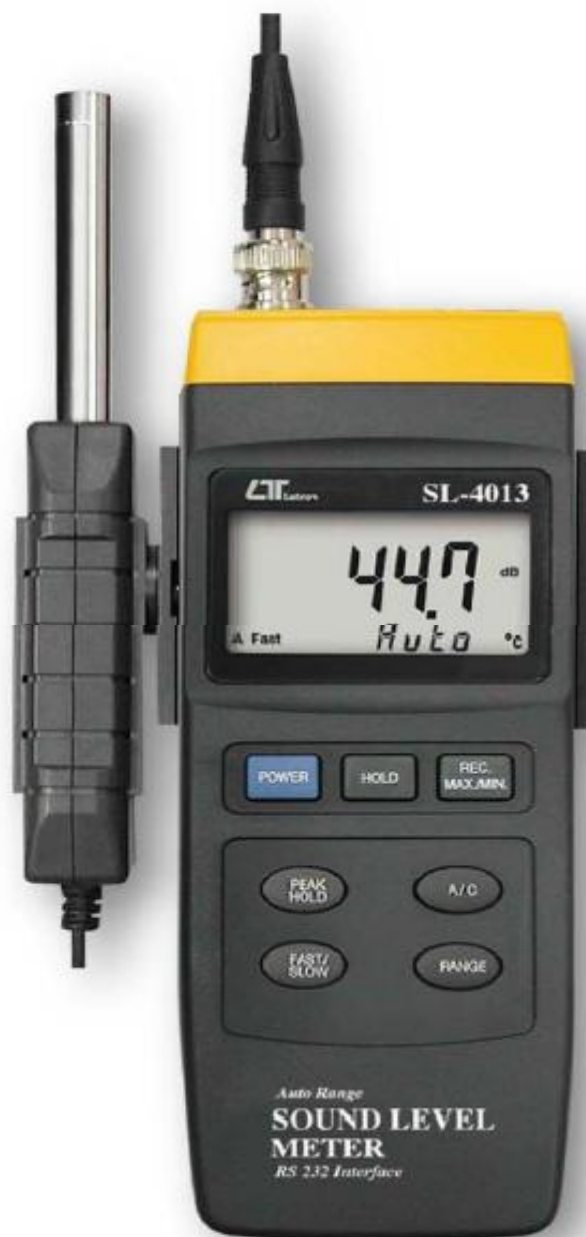
0711-SL4012

*Auto range, Separate probe, AC output, Memory*

# **SOUND LEVEL METER**

**Model : SL-4013**

**ISO-9001, CE, IEC1010**



## **FEATURES**

- \* Separate sound probe, easy operation.
- \* Large LCD display, easy to read.
- \* Frequency weighting meet
- \* IEC 61672 class 2.
- \* Auto range & manual range.
- \* A & C frequency weighting.
- \* Fast & Slow time weighting
- \* AC output for system expansion.
- \* RS232 computer interface.
- \* External calibration VR.
- \* Hold & Memory record.
- \* High accuracy condenser microphone
- \* Peak Hold.
- \* Over and under load indicator.
- \* LCD display.
- \* Durable, strong light weight
- \* ABS-plastic housing case.



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## Auto range, Separate probe, AC output, Memory

# DIGITAL SOUND LEVEL METER, Model : SL-4013

### FEATURES

* Large LCD display, easy to read.	* Build in adj. VR is available for easy calibration.
* Frequency weighting networks are designed to meet IEC 61672 class 2.	* Hold & Memory record ( max., min. )
* Auto range & manual range.	* Condenser microphone for high accuracy & stability.
* A & C weighting networks are conformity to standards.	* Peak Hold function for stored the maximum value.
* Fast & Slow dynamic characteristic modes.	* Warning indicator for over and under load.
* AC output for system expansion.	* LCD display for low power consumption & clear read-out even in bright ambient light condition.
* RS232/USB computer interface.	* Used the durable, long-lasting components, including a strong light weight ABS-plastic housing case.
* Separate sound probe, easy for remote sound measurement.	* Compact and light weight plastic housing.

### SPECIFICATIONS

Display	52 mm x 32 mm LCD (Liquid Crystal Display), 5 digits.	
Function	dB (A & C frequency weighting), Time weighting(Fast, Slow), Hold, Memory ( max. & min. ), Peak hold, AC & RS232 output.	
Measurement Range	30 - 130 dB.	
Resolution	0.1 dB.	
Accuracy (23 ± 5 °C)	Frequency weighting meet IEC 61672 class 2, calibrating input signal on 94 dB ( 31.5 Hz to 8 kHz), then the accuracy of frequency weighting is specified as following: 31.5 Hz - ± 3 dB, 63 Hz - ± 2.5 dB, 125 Hz - ± 2.0 dB 250 Hz - ± 1.9 dB, 500 Hz - ± 1.9 dB, 1 kHz - ± 1.4 dB 2 kHz - ± 2.6 dB, 4 kHz - ± 3.6 dB, 8 kHz - ± 5.6 dB	
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.	
Frequency	31.5 Hz to 8,000 Hz.	
Calibrator	B & K (Bruel & kjaer), multi-fuction acoustic calibrator, model : 4226.	
Microphone	Electric condenser microphone.	
Size of microphone	1/2 inch standard size.	
Range selector	Auto range : 30 to 130 dB.	
	Manual range : 3 range, 30 to 80 dB, 50 to 100 dB, 80 to 130 dB, 50 dB on each step, with over & under range indicating.	
Time Weighting (Fast & Slow)	Fast - t = 200 ms, Slow - t = 500 ms, * "Fast" range is simulated the human ear response time weighting. "Slow" range is easy to get the average values of vibration sound level. * The "Fast" & "Slow" time weighting range are designed to IEC 61672 class 2 requirement.	
Output Signal	* AC output - AC 0.5 Vrms corresponding to each range step. Output impedance - 600 ohm. * RS232 output.	
Output terminal	Terminal 1 : RS232 computer interface terminal.	
	Terminal 2 : AC output terminal. * Terminal socket size : 3.5 mm dia. phone socket.	
Calibration VR	Build in external calibration VR, easy to calibrate on 94 dB level by screw driver.	
Operating Temp.	0 °C to 50 °C ( 32°F to 122°F ).	
Operating Humidity	Less than 80% RH.	
Power Supply	006P DC 9V battery ( Alkaline or heavy duty type ).	
Power Consumption	Approx. DC 6mA.	
Dimension	Main instrument	205 x 68 x 29 mm ( 8.07x2.7x1.1 inch ).
	Sound probe	170.5 x 24.5 x 19 mm ( 6.7x1.0x0.7 inch ).
Weight	405 g/0.89 LB ( including probe ).	
Standard Accessories	Instruction manual ..... 1 PC.	
	Separate sound probe..... 1 PC.	
	Probe holder..... 1 PC.	
Optional	Sound Calibrator, model : SC-941 ( 94 dB ). SC-942 ( 94dB, 114 dB ).	
	Carrying case : CA-06	
	RS232 cable, Model : UPCB-02	
	USB cable, Model : USB-01	
	Application software, Model : SW-U801-WIN	

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0711-SL4013



Frequency and time weighting meet IEC 61672, Class 1

# SOUND LEVEL METER

Model : SL-4022 *ISO-9001, CE, IEC1010*



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**DIGITAL SOUND LEVEL METER****Model : SL-4022****FEATURES**

* Frequency weighting and time weighting are meet IEC 61672 Class 1.	* Max. Hold function for stored the maximum value on display.
* Large LCD display, easy to read.	* Warning indicator for over and under load.
* A & C weighting networks are conformity to standards.	* LCD display for low power consumption & clear read-out even in bright ambient light condition.
* FAST & SLOW dynamic characteristic modes.	* Used the durable, long-lasting components, including a strong, light weight ABS-plastic housing case.
* AC output for system expansion.	* Compact and heavy duty housing case.
* Build in adj. VR, available for easy calibration.	* Low battery indicator.
* Condenser microphone for high accuracy & long-term stability.	
* Build max. hold reset switch.	

**SPECIFICATIONS**

Display	1.8 mm (0.7") LCD (Liquid Crystal Display), 3 1/2 digits.
Function	dB (A & C frequency weighting), Time weighting (Fast, Slow), Max. hold, Max. hold reset, AC output.
Measurement Range	3 ranges ( 30 - 70 dB, 60 - 100 dB, 90 - 130 dB ),
Resolution	0.1 dB.
Accuracy (23 ± 5 °C)	Frequency weighting meet IEC 61672 Class 1, calibrating input signal on 94 dB the accuracy of frequency weighting is specified as following: 31.5 Hz : ± 2.0 dB, 63 Hz : ± 1.5 dB, 125 Hz : ± 1.5 dB, 250 Hz : ± 1.4 dB, 500 Hz : ± 1.4 dB, 1 KHz : ± 1.1 dB, 2 KHz : ± 1.6 dB, 4 KHz : ± 1.6 dB, 8 KHz : + 2.1 dB to -3.1 dB,
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.
Frequency	31.5 Hz to 16 KHz. * Accuracy is tested within 31.5 Hz to 8 KHz.
Calibrator	B & K (Bruel & kjaer), multi-fuction acoustic calibrator, model : 4226.
Microphone type	Electric condenser microphone.
Size of Microphone	1/2 inch standard size.
Range Selector	30 to 70 dB, 60 to 100 dB, 90 to 130 dB, 40 dB on each step, with over & under range indicating.
Time Weighting (F & S)	Fast - t = 200 ms, Slow - t = 500 ms, * "Fast" range is simulated the human ear response time weighting. "Slow" range is easy to get the average values of vibration sound level. * The "Fast" & "Slow" time weighting range are designed to IEC 61672 Class 1 requirement.
Output Signal	AC output - AC 750 mVrms corresponding to each range step.
Calibration	Build in external calibration VR, easy to calibrate on 94 dB level by screw driver. Internal oscillation system, 1 KHz sine wave generator.
Output Terminal	3.5 mm dia. phone output terminal is provided for connection with analyzer, level recorder, tape recorder.
Operating Temp.	0 °C to 50 °C ( 32 °F to 122 °F).
Operating Humidity	Less than 80% RH.
Power Supply	DC 9V battery x 2 PCs, 006P, MN1604 ( PP3 ) or equivalent, heavy duty or alkaline type.
Power Consumption	Approx. DC 17 mA.
Dimension	260 x 87 x 36 mm ( 10.2 x 3.4 x 1.4 inch ).
Weight	450 g/0.99 LB
Standard Accessories	Instruction Manual..... 1 PC. Calibration screw driver..... 1 PC. Carrying case..... 1 PC.
Optional Accessories	94 dB Sound Calibrator, model : SC-941. 94/114 dB Sound Calibrator, model : SC-942. Wind shield ball, model : SB-01.

## SOUND LEVEL METER

Model : S-02



- CONDENSER MICROPHONE
- ANALOGUE METER

RANGE : 40 dB - 140 dB

RESPONSE : FAST & SLOW

A & C WEIGHT AGE

WEIGHT : SENSOR - 130 gms.  
INSTRUMENT - 655 gms.  
TOTAL WITH CARRY CASE - 1080 gms.

SIZE : CARRY CASE - 225 x 195 x 85 mm

VIBRATION AND SOUND ARE TWO MOST IMPORTANT  
PARAMETERS FOR MONITORING THE MACHINE HEALTH.  
REGULAR LOGGING OF THESE TWO PARAMETERS  
PROVIDES EARLY WARNING OF BREAKDOWN

WE ARE OFFERING PORTABLE INSTRUMENTS FOR  
INDIVIDUAL PARAMETERS AS WELL AS AN INTEGRATED  
METER.

## SOUND LEVEL METER CALIBRATOR, Model : SC-941, SC-942

SPECIFICATIONS		
Futures	Precision 94 dB/1000 Hz sound calibrator, useful to calibrate Sound Level Meter.	
Frequency	1000 Hz $\pm$ 2 %.	
Sound Pressure Level	SC-941	94 dB : $\pm$ 0.75 dB.
	SC-942	94 dB : $\pm$ 0.75 dB, 114 dB : $\pm$ 0.9 dB.
Microphone Type	0.5" microphone & 1" microphone.	
Size	Round 50 mm dia. x 145 mm.	

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

0711-SL4022





#### FEATURES

This instrument is compatible with several standards of **GB/T 3785, IEC 651 Type 2, ANSI S1.4 Type 2**. It is widely used to test the sound level of environment, mechanic, vehicle, ship and other noise. Fit for industry environment protecting, working, sanitation, teaching search and other departments and aircraft noise

#### SPECIFICATIONS

Model	Metrix+ SL 4001	Metrix+ SL 4005
Microphone	1/2 inch Electret Condenser Microphone	
Measuring Range	30~130 dBA 35~130 dBC	LP: 30~130dB (A) 35~130dB (C) 35~130 dB (F) Leq : 30-130dB LN : 0-100%
Accuracy	±1.5dB	±1dB
Frequency Range	31.5HZ~8.5KHZ	20 ~ 12,500Hz
Calibration	---	Built in 94dB at 1kHz (sinusoidal)
Alarm Value Set	---	30 ~ 130dB
Linearity Range	50dB	50dB
Frequency Weighting	A & C	A, C, & F (Flat)
PC Interface RS 232C	---	√
Data Analysis	---	√
Memory	---	30 groups with measuring condition
AC\DC Output	√	√
Low Battery Indication	√	√
Over Range Indication	√	√
Resolution	4 digits & 0.1dB	
Time Weighting Selection	Fast / Slow	
Measuring Level Selection	√	√
Max Hold Function	√	√
Sampling Frequency	2 times / sec	
Power	9V battery	1.5V "AAA" battery
Product Net Weight	225g	170g
Product Size	221 x 66 x 33mm	236 x 63 x 26mm
Accessories	Main Unit, Manual	Main Unit, Manual & Hard carry case
Optional Accessories	ND 9 Sound Calibrator	ND 9 Sound Calibrator, RS 232C PC Interface + USB + Software

# ACD MAKE

## INDUSTRIAL GRADE SOUND LEVEL METER MODEL : S - 4000



- Electret Condenser Microphone
- Direct Digital Reading
- 30 db to 130 db Range
- 'A' Frequency Weightage
- 'Hold' to Freeze the Display Value

The determination and control of Air borne noise has been a vital problem in recent years. It is now generally appreciated that high level noise is detrimental to the normal health and efficiency of the individual, and frequently indicates a fault in the manufacture or design of a product.

Sound waves cause variations in the normal atmospheric pressure. This variation in pressure is measured in dynes per square centimeter. For convenience, a logarithmic scale of decibels is used for sound level measurements. The sound pressure level is defined as the ratio in decibels of the magnitude of the sound pressure to the standard reference sound pressure of 0.0002 dyne per square centimeter.

The Sound Level Meter provides the essential basic instrument for such investigations, since it measures, on an internationally standardized decibel scale, the value of the alternating pressure waves of the air which are caused by the sound.

ACD is making available instrument S-4000 which conforms to the requirements of 'Type 2' instrument as per IS 9779-1981.

This instrument consists of electret microphone, impedance matching circuits, high gain amplifier, attenuator, precise weighting networks and digital meter.

#### **SPECIFICATION**

Standard applied	: IEC 651 Type2
Range	: 1) Weighting: 30- 80 dB 2) Weighting: 50-100 dB 3) Weighting: 80-130 dB
Resolution	: 0.1dB
Frequency Range	: 31.5Hz to 8KHz
Accuracy	: +/- 2dB
Dynamic Range	: 65dB
Frequency Weighting	: 'A'
Time Weighting	: Fast
Operating Condition	: 0 °C to 40 °C< 80% R. H.
Display	: 18 mm LCD ; 3 ½ digits
Power	: One 9V battery
Size	: 225x70x28mm (8.9x2.8x1.1inch)
Weight	: 250g
Accessories	: Instruction Manual, 9VBattery.