

Auto range , +Type K/J Thermometer

SOUND LEVEL METER

Model : SL-4112P

ISO-9001, CE, IEC1010

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02-2389-0101



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The Art of Measurement

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FEATURE

- * Large LCD display, easy to read.
- * Frequency and Time weighting meet IEC 61672 class 2.
- * A, C frequency weighting networks is selected.
- * Time weighting (Fast & Slow) dynamic characteristic modes.
- * 0.5" standard microphone head.
- * AC output for system expansion.
- * RS232 computer interface.
- * 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.
- * Build in type K and type J thermometer.
- * Probe (EM-910P) is included for Humidity/Temp., Light and Anemometer measurement.
- * Data logger with 1,600 no. memory, sampling time can select to 1, 2, 5, 10, 30, 60, 600, 1800 or 3600 seconds.
- * DC 1.5 V battery (UM-4, AAA) X 6 or DC 9V adapter in.
- * Operation key used push button.
- * LCD display for low power consumption & clear read-out even in bright ambient light condition.
- * Using the durable, long-lasting components, including a strong, light weight ABS-plastic housing case.

GENERAL SPECIFICATION

Display	51 mm x 37 mm LCD (Liquid crystal display), 5 digits with annunciator.
Data logger	Data logger with 1,600 no. memory, sampling time can select to 1, 2, 5, 10, 30, 60, 600, 1800 or 3600 seconds.
Operating Temp.	0 to 50 °C (32 to 122 °F).
Operating Humidity	Less than 80% RH.
Power Supply	DC 1.5 V battery (UM4, AAA) x 6 PCs, or equivalent.
Power Consumption	Approx. DC 15 mA max..
Dimension	<i>Main instrument</i> : 246 x 68 x 41 mm (9.6 x 2.7 x 1.6 inch) <i>Probe</i> : 116 x 48 x 30 mm (4.6 x 1.9 x 1.2 inch)
Weight	410 g/0.9 LB (including battery).
Accessory Included	* Instruction Manual 1 PC * Humidity/Light/Anemometer probe EM-910P. 1 PC
Optional Accessories	94 dB Sound Calibrator : Model : SC-941. SC-942. Sound wind shield ball Model : SB-01
	USB cable Model : USB-01 RS232 cable (isolated RS232 cable) : Model : UPCB-02.
	* Data Acquisition software Model : SW-U801-WIN. * Data logger transfer software Model : SW-DL2005., SW-E2005
	Type K Temperature probe :Model : TP-01 TP-02A, TP-03. TP-04

ELECTRICAL SPECIFICATIONS (23± 5 °C)**SOUND LEVEL METER**

Function	dB (A & C frequency weighting), Time weighting (Fast, Slow), Hold, Memory (Max. & Min.), Peak hold, AC output, RS232 output.
Meter default function	Range set to auto range. Frequency weighting set to A weighting. Time weighting set to fast.
Measurement Range	30 - 130 dB.
Resolution	0.1 dB.
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. (0.5 inch).
Frequency weighting network	Characteristics of A & C. <i>*A weighting :</i> The characteristic is simulated as "Human Ear Listing" response. Typical, if making the environmental sound level measurement, always select to A weighting. <i>*C weighting :</i> 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, Slow - t = 1 second, <i>* "Fast" range</i> is simulated the human ear response time. <i>* "Slow" range</i> is easy to get the avg. values of vibration sound level. <i>* The "Fast" & "Slow" response range</i> are designed to meet IEC 61672 class 2 requirement.
Calibrator	B & K (Bruel & kjaer), MULTIFUNCTION ACOUSTIC CALIBRATOR 4226.
Output Signal	<i>* AC output</i> : AC 0.5 Vrms corresponding to each range step. Out put impedance - 600 ohm. <i>* RS232 output.</i>
Output terminal	<i>Terminal 1</i> : RS232 computer interface terminal, photo couple isolated. <i>Terminal 2</i> : AC output terminal. <i>Terminal socket size</i> : 3.5 mm dia. phone socket.
Calibration VR	Build in external calibration VR, easy to calibrate on 94 dB level by screw driver.

TYPE K/J THERMOMETER

Sensor Type	Reso lution	Range	Accuracy
Type K	0.1 °C	-50.0 To 1300.0 °C	±(0.4 %+0.8 °C)
		-50.1 To -199.9 °C	±(0.4 %+1 °C)
	0.1 °F	-58.0 To 2372.0 °F	±(0.4 %+1.5 °F)
		-58.1 To -327.8 °F	±(0.4 %+1.8 °F)
Type J	0.1 °C	-50.0 To 1100.0 °C	±(0.4 %+0.8 °C)
		-50.1 To -199.9 °C	±(0.4 %+1 °C)
	0.1 °F	-58.0 To 2012.0 °F	±(0.4 %+1.5 °F)
		-58.1 To -327.8 °F	±(0.4 %+1.8 °F)

* Accuracy value is specified for the meter only.

* Temp. probe (Type K, TP-01 TP-02A, TP-03. TP-04) is the optional accessories.

PROBE EM-910P

Anemometer

Air velocity

Measurement	Range	Resolution	Accuracy
m/S	0.4 - 25.0 m/s	0.1 m/s	± (2% + 0.2 m/s)
km/h	1.4 - 90.0 km/h	0.1 km/h	± (2% + 0.8 km/h)
mph	0.9 - 55.9 mile/h	0.1 mile/h	± (2% + 0.4 mile/h)
knot	0.8 - 48.6 knots	0.1 knots	± (2% + 0.4 knots)
FPM	80 - 4930 ft/min	1 ft/min	± (2%+40 ft/min.)

Note:
m/S - meters per second km/h - kilometers per hour
FPM - feet per minute knot - nautical miles per hour mph - miles per hour (international knot)

Temperature

Measuring Range	0 °C to 50 °C/32 °F to 122 °F
Resolution	0.1 °C/0.1 °F
Accuracy	± 0.8 °C/1.5 °F

Humidity/Temp. meter

Humidity

Measuring Range	10 % to 95 % R.H.	
Resolution	0.1 % R.H.	
Accuracy	≥ 70%RH	± (3% reading + 1% RH).
	< 70%RH	± 3% RH.

Temperature

Measuring Range	0 °C to 50 °C/32 °F to 122 °F
Resolution	0.1 °C/0.1 °F
Accuracy	± 0.8 °C/1.5 °F

Light meter

Measuring Range	LUX	0 to 20,000 LUX.
	Ft-cd	0 to 1,860 Ft-cd
Resolution	LUX	1 LUX
	Ft-cd	0.1 Ft-cd
Accuracy	± (5% rdg + 8 dgt)	

Note: Ft-cd : Feet candle

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

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