



## SOUND LEVEL METER



ULTRA COMPACT

LIGHTWEIGHT

HIGH-PERFORMANCE

Sound Level Meter *NL-27* 



(Actual size)

## Sound Level Meter *NL-27*

- Features
- Compliant with Japan Measurement Law, JIS, and IEC requirements
- Wide 107 dB linearity range allows sound level measurements from 30 to 130 dB without range switching
- Easy measurement of sound level( $L_p$ ), equivalent continuous sound level( $L_{eq}$ ), maximum sound level( $L_{max}$ ), sound exposure level( $L_E$ ), and peak sound level( $L_{Cpeak}$ )
- Manual store function and capability to transfer data to a computer via optional USB adapter cable
- 9 hours operation on two AAA (IEC R03) alkaline batteries



## 

## Specifications

Standard compliance	
Otariaara compilarios	General-Purpose Sound Level Meter according to Japan
	Measurement Law JIS C 1509-1: 2005 Class 2, IEC 61672-1:
	2002 Class 2
	CE mark (EMC Directive 2004/108/EC), WEEE Directive
Measurement functions	Sound level $L_p$ , equivalent continuous sound level $L_{eq}$ , sound
Processing functions	exposure level $L_{\rm E}$ , maximum sound level $L_{\rm max}$ , peak sound level
(normal mode)	L <sub>Cpeak</sub> (only when peak range was selected)
Measurement time settings	1 min, 5 min, 10 min, 1 h
Microphone	1/2 inch electret condenser microphone
	Model: UC-52,
	sensitivity level: -33 dB ± 3 dB (re.1 V/Pa)
Measurement level range	A-weighting: 30 dB to 130 dB,
(normal mode)	C-weighting: 36 dB to 130 dB
Linear operation range	30 dB to 137 dB
(A-weighting, 1 kHz)	
Peak sound level	65 dB to 140 dB
measurement range	
Residual noise level	A-weighting: max. 24 dB, C-weighting: max. 30 dB
Measurement frequency	20 Hz to 8 kHz
range	
Reference frequency,	Reference frequency: 1 kHz,
reference sound pressure level	reference sound level: 94.0 dB
Frequency weighting characteristics	A-weighting, C-weighting
Time weighting characteristics	F (Fast), S (Slow)
Level range	Wide range: 30 dB to 130 dB, peak range*: 65 dB to 130 dB
	*Peak range is used for peak sound level measurements
RMS detection method	Digital processing
Processing	Digital sampling cycle: 30.3 µs (Lp, Leq, LE, Lmax, Lpeak)

Calibration	Calibration frequency: 1 kHz,
	Calibration sound level: 94 dB
	Japan Measurement Law: electrical calibration with internal
	signal source; JIS, IEC: acoustic calibration using NC-74
Windscreen	Unit is compliant with JIS C 1509-1 Class 2 and IEC 61672-1
	Class 2 with and without windscreen
Display	Numeric display: 0.1 dB resolution
(TN positive display, reflective)	Bar graph: Scale range 100 dB, 5 dB resolution (update frequency 0.1 s
	Warning indicators: Over (Overload) appears at 137.4 dB
	(1 kHz) Under (Underload) appears from -0.6 dB of lower scale
	limit Battery capacity 3-stage indicator for remaining capacity
Store function	Number of data: 199
(processing results saved in internal	Stored data can be checked on recall screen
memory, using manual store)	
DC output connector	DC output: 3 V (full scale), 25 mV/dB, output impedance: 50 Ω
	Load impedance: 10 kΩ or more
AC monitor output	AC output: 1 Vrms +600 -400 mVrms (at 110 dB), overload: +2 dB
connector	Output impedance: 600 $\Omega$ , load impedance: 10 k $\Omega$ or more,
	frequency weighting: Z-weighting
USB connector	For transfer of stored data to a computer, using optional USB adapter cable
Power requirements	Current consumption: approx. 80 mA (3 V operation)
(size AAA [IEC R03] battery x 2	Battery life: approx. 9 hours (with alkaline batteries),
Normal temperature)	(Wide range) approx. 3 hours (with manganese batteries)
Temperature /	-10 °C to +50 °C, 10 % to 90 % RH (no condensation)
humidity range for operation	
Dimensions, weight	Approx. 120 mm (H) × 63 (W) × 23.5 mm (D), approx. 105 g (including batteries)
Supplied accessories	Windscreen x 1, Windscreen fall prevention rubberx 1, Silicon
	cover x 1, strap x 1, AAA [IEC R03] alkaline battery x 2

<sup>\*</sup> Due to integrated construction of unit and preamplifier, microphone extension is not possible.

- \* Windows is a trademark of Microsoft Corporation.
- \* Specifications subject to change without notice.

Distributed by:

ISO 14001 RION CO., LTD.
ISO 9 0 0 1 RION CO., LTD.

RION CO., LTD.
http://www.rion.co.jp/english/

3-20-41, Higashimotomachi, Kokubunji, Tokyo 185-8533, Japan Tel: +81-42-359-7888 Fax: +81-42-359-7442

