

Sophisticated Balance, the Professionals's Choice

LN Series

**ViBRA**  
Measure the Future



SHINKO DENSHI CO., LTD.

## PRECISION TUNING-FORK BALANCE

LN Series



### Sophisticated Balance, the Professional's Choice

ViBRA LN series always offers you the complete weighing solution. The capacity ranges from 220g to 31kg, the readability from 1mg to 0.1g. The advantages like quick response, clear

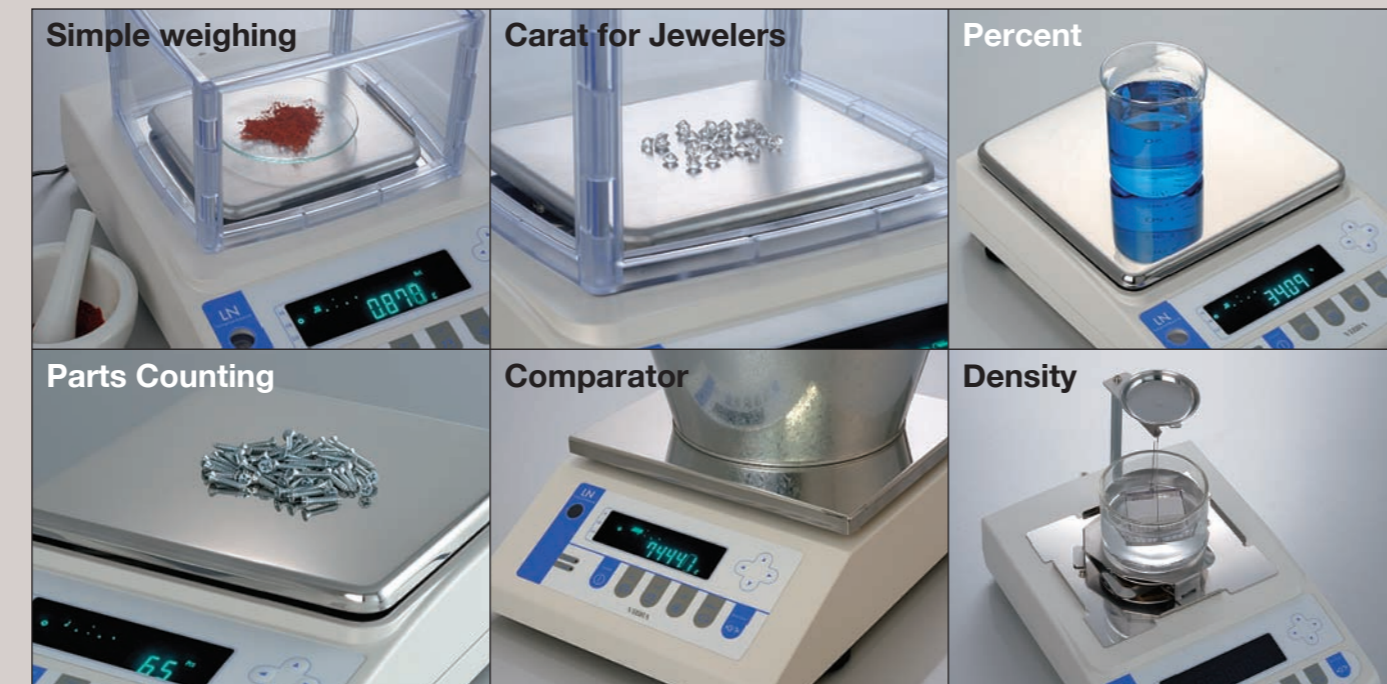
fluorescent display, tough housing, stylish design... ViBRA LN series can be suitable for every occasions from laboratory, light&heavy industry, and jewelers.

Complete weighing solution with wide range and much applications

Statistics function for quality control use

Comfortable operation in quick response and stable indication

For laboratory, light&heavy industry, jewelry shops, etc...



### Statistics function for QC & etc...



ViBRA LN series has the function to automatically calculate the various statistical data from the measurement results. This data can be useful for the quality control in the assembling line and the statistical checks of prepackaged products. The data can be output to the printer and PC.

### Fluorescent display, clearly visible

The large fluorescent display is clearly visible. It can make it easy to operate the balance even in the dark location.



### Quick response and stable indication

The quick response and the stable indication are important for almost all the weighing operations. ViBRA LN series promises you the quickness and stableness so that it can make the measurement works much more efficient and less time-consuming.



### Accurate measurement by appropriate calibration

It is highly important to keep the accuracy of the balance by calibration. The procedure of the calibration is sometimes bothering, but in ViBRA LN series, you can adjust the balance with one-touch of CAL key (internal weight model only).

### Density measurement mode

To measure the density of the object is one of the most typical applications for the precision balance. ViBRA LN series offers you the function to easily calculate the density from the measurement results. \* the density measurement kit in the image is option.



### Connection to the outside devices

ViBRA LN series has RS232C as standard (two outputs) and can be easily connected to the printer, PC. You can keep the weighing results in the printed and/or electric forms.



### Specifications

#### INTERNAL WEIGHT MODELS

Model	LN 223RCE	LN 323RCE	LN 423RCE	LN 623RCE	LN 1202RCE	LN 2202RCE	LN 3202RCE	LN 4202RCE
Capacity	220g	320g	420g	620g	1200g	2200g	3200g	4200g
Read-out(d)		0.001g					0.01g	
Verification(e)		0.01g					0.1g	
Repeatability(s)		0.001g					0.01g	
Non-Linearity(typ.)		±0.001g					±0.01g	
Pan size		120×140mm					200×200mm	
Calibration	with internal and external weight							
Dimensions	330×220×190mm (including windshield)				333×220×88mm			
Weights	Approx. 3.5kg				Approx. 4.0kg			

#### EXTERNAL WEIGHT MODELS

Model	LN 223CE	LN 323CE	LN 423CE	LN 623CE	LN 1202CE	LN 2202CE	LN 3202CE	LN 4202CE	LN 6202CE	LN 8201CE	LN 12001CE	LN 15001CE	LN 21001CE	LN 31001CE
Capacity	220g	320g	420g	620g	1200g	2200g	3200g	4200g	6200g	8200g	12000g	15000g	21000g	31000g
Read-out(d)		0.001g					0.01g						0.1g	
Verification(e)		0.01g					0.1g						1g	
Repeatability(s)		0.001g					0.01g						0.1g	
Non-Linearity(typ.)		±0.001g					±0.01g						±0.1g	
Pan size		120×140mm					200×200mm				200×200mm		220×250mm	
Calibration	with external weight only													
Dimensions	330×220×190mm (including windshield)				333×220×88mm				330×220×88mm		330×220×111mm		330×220×111mm	
Weights	Approx. 3.5kg				Approx. 4.0kg				Approx. 4.0kg		Approx. 8.5kg		Approx. 9.5kg	

### Options

LNBT	Rechargeable battery
LNLM	Relay contact
LNUI	Under weighing hook
LNBU	Buzzer output
LNRA	RS422A output
LNDR	Density measurement kit

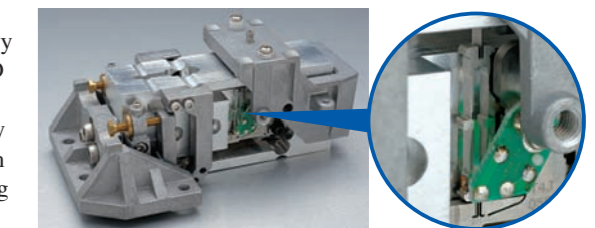
### Common Specification

Power source	: AC120/230V, DC12V
Output	: RS232C (2 outputs)
Measuring system	: Tuning-fork frequency system
Tare	: Full weighing range
Display	: Fluorescent display
Weighing units	: g, kg, ct
EC type approval	: available for all models (I & II)

### What makes the tuning-fork sensor so precise?

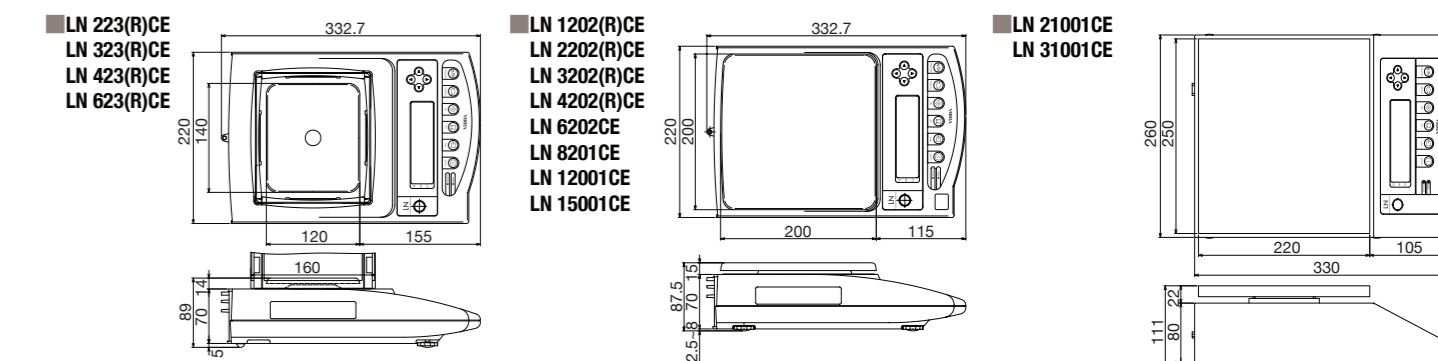
The tuning-fork sensor measures force or mass by gauging changes in oscillation frequency when a load is applied to a long, narrow vibrator, and it digitally outputs the readings.

Unlike load cell or electromagnetic systems, the tuning-fork sensor does not rely on material distortion, electromagnetic force, heavy power consumption, or A/D converters, so its inherent margin of error is extremely small, and its high precision can be maintained for a long time.



Double-Ended tuning fork (DET) vibrator

### Dimensions



The contents of this catalogue are subject to change due to modifications and/or other reasons.

## SHINKO DENSHI CO., LTD.

SHINKO DENSHI CO., LTD.  
3-9-11 YUSHIMA, BUNKYO-KU, TOKYO 113-0034  
TEL : 81-3-3835-4577 FAX : 81-3-5818-6066  
URL : <http://www.vibra.co.jp/global/>  
E-mail : [shinko@vibra.co.jp](mailto:shinko@vibra.co.jp)

Distributed by: