

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...

SHINKO DENSHI CO., LTD.

# PRECISION TUNING-FORK BALANCE



#### Sophisticated Balance, the Professional's Choice

ViBRA LN series always offers you the complete fluorescent display, tough housing, stylish weighing solution. The capacity ranges from 220g design... ViBRA LN series can be suitable for to 31kg, the readability from 1mg to 0.1g. The advantages like quick response, clear industry, and jewelers.

every occations from laboratory, light&heavy



**Density measurement** 

To measure the density of the object is one

precision balance. ViBRA LN series offers

\* the density measurement kit in the image is option.

of the most typical applications for the

you the function to easily calculate the

density from the measurement results.

Statistics function for QC & etc...

### Fluorescent display, clearly visible

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

Connection to the outside devices

ViBRA LN series has RS232C as

standard (two outputs) and can be

easily connected to the printer, PC.

the printed and/or electric forms

You can keep the weighing results in



#### 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-consum



ViBRA LN series has

the various statistical

measurement results.

This data can be useful

for the quality control

in the assembling line

products. The data can be output to the print

and the statistical checks of prepackaged

data from the

tically calculate

# 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).

## **Specifications**

EXTERNAL WEIGHT MODELS



#### INTERNAL WEIGHT MODELS

Model	LN 223R	LN 323R	LN 423R	LN 623R	LN 1202R	LN 2202R	LN 3202R	LN 4202R
Capacity	220 <b>g</b>	320g	420g	620g	1200g	2200g	3200g	4200g
Readability		0.0	01g		0.01g			
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							
Weighing Units	g, ct, oz, lb, dwt, GN, tl(Hong Kong), tl(Taiwan), tl(Singapore), momme, tola							
Dimensions(LWH)	330×220×190mm (including windshield)				333×220×88mm			
Weights		Approx	k. 3.5kg	<u> </u>	Approx. 4.0kg			

LNBT	Rechargeable battery
LNLM	Relay contact
LNUH	Under weighing hook
LNBZ	Buzzer output
LNR4	RS422A output
LNDK	Density measurement kit

#### **Common Specification**

Power source : AC120/230V, DC12V : RS232C (2 outputs) Measuring system : Tuning-fork frequency system : Full weighing range : Fluorescent display

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

The tuning-fork sensor measures force or mass by gauging changes in oscillation frequencey 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,

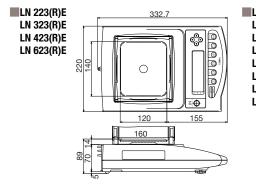
power cunsumption, or A/D onverters, so its inherent margin of error is extremely small, and its high precision can be maintained for a long

electromagnetic force, heavy

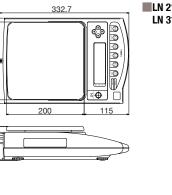


Double-Ended tuning fork (DETF) vibrator

#### **Dimensions**



**III** LN 1202(R)E LN 2202(R)E IN 3202(R)F LN 4202(R)E LN 6202E LN 8201E LN 12001E



VÎBRA®
Measure the Future

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

# SHINKO DENSHI CO., LTD.

3-9-11 YUSHIMA, BUNKYO-KU, TOKYO 113-0034

TEL: 81-3-3835-4577 FAX: 81-3-5818-6066





SHINKO DENSHI CO., LTD.

URL: http://www.vibra.co.jp/global/



