



产品规格书

PRODUCT SPECIFICATION

客户名称 Buyer Name	
客户料号 Buyer Part No.	
客户承认签章 Buyers Approval & Signatures	

文件编号 Spec No.		版本	A/0
品名描述 Product Description	LRA 扁平振动马达 LRA Coin Vibration Motor		
型号Part No.	VG0415001W-240H		
送样日期Date			
设计Designed by	审核Checked by	批准Approved by	
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Revised record

Rev. No.	Rev. Date	Page No.	Revised Item	Reason
A/0	2025.02.21	/	Preliminary spec	

1. Applications

This specification provided by Vybronic is applied to model VG0415001W-240H AC linear resonant actuator, which is used for Smart Rings or any device under 10 grams.

2. Storage, Operating Temperature/Humidity Conditions

No.	Item	Condition
2-1	Operating Temperature Range	-20 °C ~ +70 °C
2-2	Storage Temperature Range	-40 °C ~ +85 °C

3. Measurement Conditions, Input Voltage

No.	Item	Condition
3-1	Temperature	20 ± 5 °C
3-2	Humidity	65 ± 20%RH
3-3	Rated Input Voltage	0.4 ± 0.02 Vrms AC, Sinewave
3-4	Input Voltage Range	0.1 ~ 0.42 Vrms AC
3-5	Operating Attitude	Refer to Figure

Refer to figure:

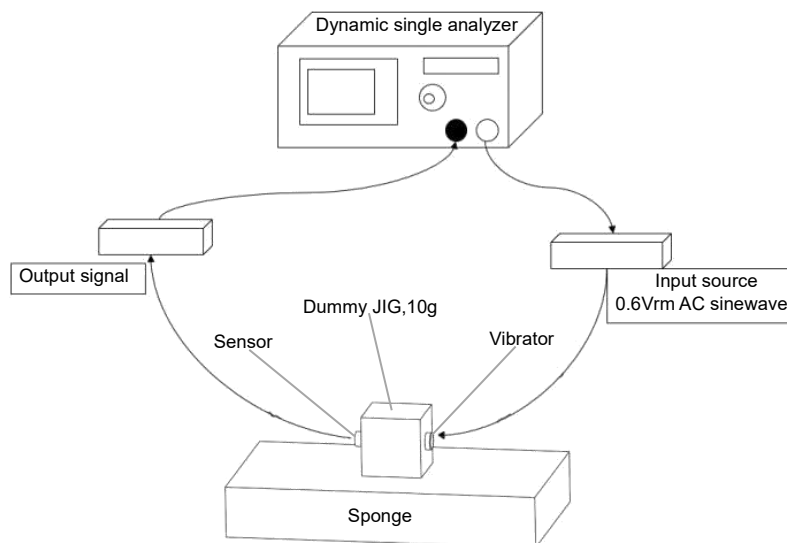


Figure1: An example of measurement method of linear vibrator

Note;

- Dummy Jig size is 20mm x 20mm x 20mm, 10 g (with Sensor).
- Jig should be put it on the sponge before measurement.
- Linear vibrator should be mounted to the center.
- Also, acceleration sensor should be mounted the Dummy Jig's back corner.
- At measurement of acceleration, Dummy Jig should be stabilized.
- When use customer requirements JIG, according to customer conditions.

4. Characteristics

No.	Item	Specifications	Conditions & Remarks
4-1	Motor Diameter	$\Phi 4 \pm 0.1$ mm	See appendix 1
4-2	Motor Height	1.5 ± 0.1 mm	See appendix 1
4-3	Weight	0.1 ± 0.01 Gram	Motor (without line)
4-4	Resistance	$13 \pm 2 \Omega$	$25 \pm 3 ^\circ \text{C}$
4-5	Rated Current	Max. 50 mArms	Input Source: F0, 0.4Vrms AC, sine wave
4-6	Vibration Acceleration	Min 0.12 Grms	Input Source: F0, 0.4Vrms AC, sine wave, Use 10g JIG
4-7	Operating Frequency	240 ± 10 Hz	See figure 2
4-8	Rising Time	Max. 40 msec	From 0 to 50% of nominal vibration @ 0.4Vrms, F0
4-9	Falling Time	Max. 60 msec	From 100% to 50% of nominal vibration @ 0.4Vrms, F0
4-10	Mechanical Noise	Max. 45 dB(A)	See figure 3 10cm distance from microphone, Input Source :F0, 0.4Vrms AC, sine wave
4-11	Insulation Resistance	Min. 10 M Ω	100V DC input, between Case and Land of FPC.

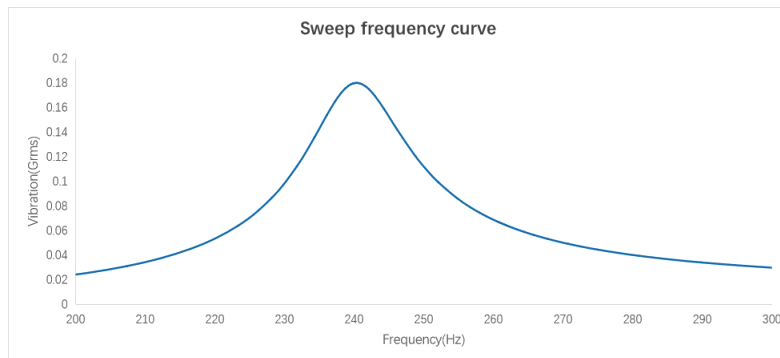


Figure2: Typical Acceleration characteristics

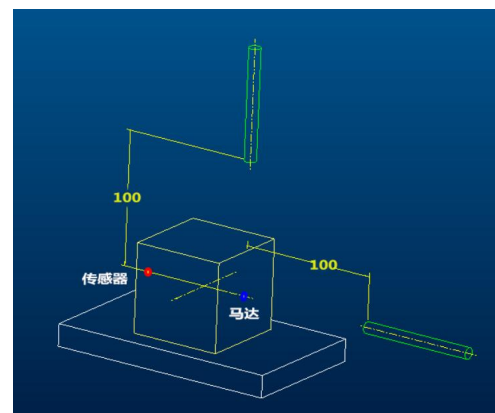
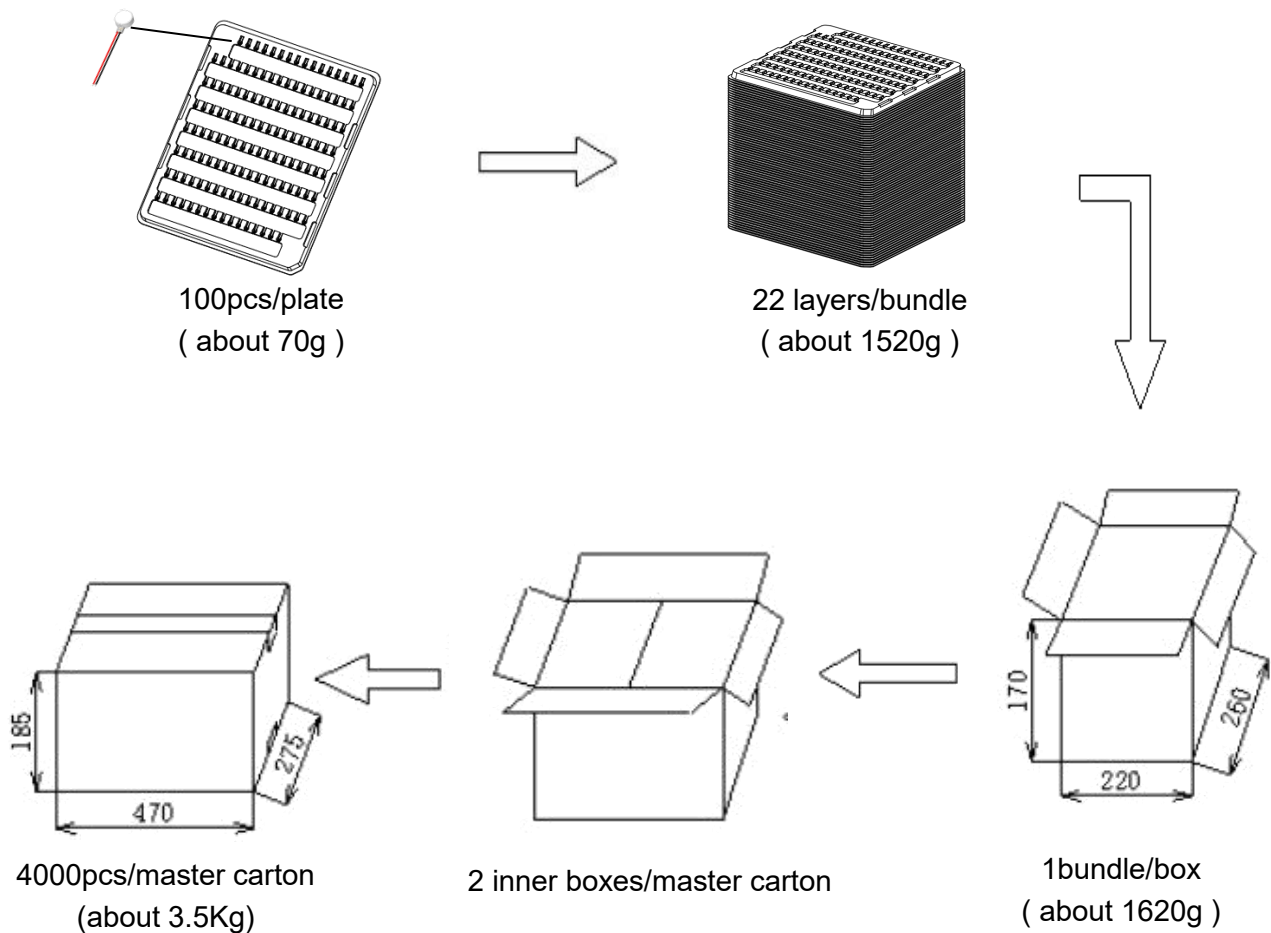


Figure3: Noise measurement condition

5. Reliability test

TBD

6. Packing



7. Cautions & Handling

- (1) Do not press the product with more than 0.5 kgf or drop it.
It can cause the transformation of performance or external appearance.
- (2) Don't use under the following conditions. It may cause a decline in performance.
 - Do not drop into fluid (such as: water, alcohol, etc.)
 - Do not keep at high temperature or high humidity for extended periods of times
 - Do not use near gases which cause erosion
 - Please refrain from operating the vibrator near magnetic devices.
- (3) The vibrator has a strong magnet, so please be aware that it has a magnetic force on the surface of the bracket.
- (4) To optimize the vibration force, rated frequency and voltage could be changed as to assemble condition.

8. Appendix 1 (Outline drawing)

