

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/1
品名描述 Product Description	LRA 扁平振动马达 LRA Coin vibration motor		
型号Part No.	VG1036001D		
送样日期Date			
设计Designed by	审核Checked by 批准Approved by		proved by
陳満	fr. wif	7	fun
2020.07.01	2020.07.01	2020	0.07.01

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1. Scope

These specification are applied to VG1036001D Linear vibrator to be used for cellular and PDA phone, manufactured by Vybronics.

2. Standard Operating Condition

NO	ITEM	SPECIFICATION	
2-1	Working temperature range	-25℃ ~ +70 ℃	
2-2	Storage temperature range	-40℃ ~ +85℃	

3. Measurement Environment Conditions

NO	ITEM	SPECIFICATION	
3-1	Temperature	20°C ± 3°C	
3-2	Humidity	65%RH ± 20%RH	
3-3	Rated voltage	2.0 Vrms AC(Sine wave) 5.6 VP-P	
3-4	Operating Voltage Range	0 ~ 2.05 Vrms	
3-5	Rated Frequency	175 Hz	

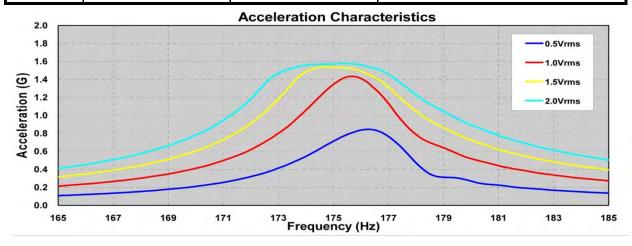


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4. Product Characteristics

No.	ITEM	Specification	Measuring condition	
4-1	Resistance	27 Ohm +/- 5	Standard Test Condition	
4-2	Rated current	90 mArms Max	Input source : 2.0Vrms AC, Sinewave, 175HZ	
4-3	Acceleration	1.5 +/- 0.3 Grms	Input source : 2.0Vrms AC, Sinewave, 175Hz	
4-4	Frequency Characteristics	Refer to the frequency spectrum	Standard Test Condition	
4-5	Dimension	Refer to outline drawing	Standard Test Condition	
4-6	Weight	2.0 +/- 0.1 gram	Standard Test Condition	
4-7	Noise	Max 50dBA	10cm distance from microphone, Input Voltage : 2.0Vrms AC, Sinewave	
4-7-1	Noise by mechanical touch	Max 35dBA	Test : LVIT-201H (2.0Vrms AC, Sinewave)	
4-8	Ringing	Max 0.4 Grms	0.2Vrms AC, Sinewave (Frequency sweep)	
4-9	Insulation resistance	Min 10M Ohm	100V DC input, between Case ~ Terminal	
4-10	Rising Time	Max 55mS	Input source : 2.0Vrms AC, Sinewave, 175HZ	
4-11	Falling Time	Max 200mS	Input source : 2.0Vrms AC, Sinewave, 175HZ	



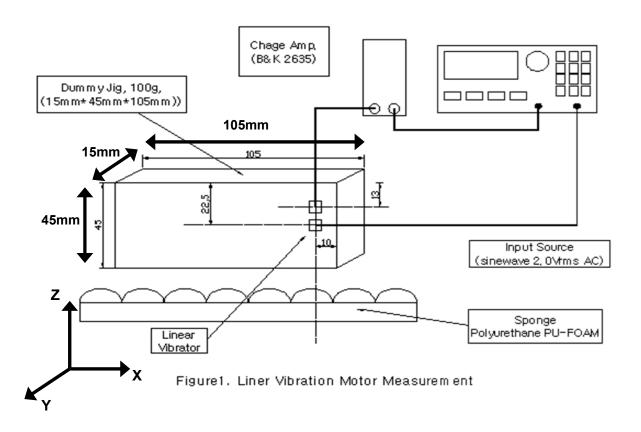
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5. Acceleration Testing Methods

Figure 2.0
Linear Vibrator Method of Measurement



5.1) Linear Vibrator / Accelerometer mounting position (Refer the Figure 1.0)

- Linear Vibrator should be mounted to position of 15mm direction (Y-direction) on Dummy Fixture
- Also, Accelerometer should be mounted to measure Y-direction vibration on Dummy Fixture

5.2) Dummy fixture position

- 15mm*105mm plane of Dummy fixture should be located on sponge
- At measurement of acceleration, Dummy fixture should be stabilized

5.3) Measurement of Acceleration

- Acceleration of Linear Vibrator should be measured 2~3 second later when source inputted (2.0Vrms AC, sinewave)
- For the precise measurement, Acceleration of Linear vibrator should take average data from 3 times repeating.

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6. Reliability test conditions

No	Items	Specification	Judgement
6-1	High temperature Storage test	+70°C, 168, After test, the Vibrator should be measured after room-temperature storage for 4Hrs. Sample quantity: 4 pcs	Acceleration variation : ±30% Rated current : 90mA Max
6-2	Low temperature Storage test	-30°C, 168, After test, the vibrator should be measured after room-temperature storage for 4hrs. Sample quantity: 4 pcs	Acceleration variation : ±30% Rated current : 90mA Max
6-3	High/Low Temperature Humidity cycle storage test	-40°C ~ 80°C / 85% humidity, Total 6cycles Sample quantity : 4 pcs One cycle 25°C,50%RN -40°C 3hr 6hr 6hr 3hr Time	Acceleration variation : ±30% Rated current : 90mA Max
6-4	Thermal shock Resistance test	-40°C ~ 80°C in each of 30Min(1cycle),Total 50cycles. Transition is 5minutes max. After the test, the vibrator should be measured after room-temperature storage for 4Hrs. Sample quantity: 4pcs	Acceleration variation : ±30% Rated current : 90mA Max

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6. Reliability test conditions

No	Items	Specific	Judgement
6-5	Room Temperature life test	Operation at rated Input volt Input Frequency(175Hz) for 1,000,000cycle,On(2sec)/Ot	Acceleration variation : ±30% Rated current : 90mA Max
6-6	Low Temperature Life test	-20°C, Operation at rated In AC,Sinewave), Input Freque 53,000cycles, 2.5sec On/Of 20,000cycles, Continue test Sample Quantity: 10pcs	Acceleration variation : ±30% Rated current : 90mA Max
6-7	High Temperature Humidity life test	+60°C, 95% humidity, Ope (2.0Vrms AC, Sinewave), In 53,000cycles, 2.5sec on/off, 20,000cycles, Continue tes Sample Quantity : 4pcs	Acceleration variation : ±30% Rated current : 90mA Max
6-8	H2S Corrosion Resistance	+40±2°C, 80% humidity, Co Test Duration time : 24hours Sample Quantity : 4pcs	Acceleration variation : ±30% Rated current : 90mA Max
6-9	Non operating Random Vibration test	Non-operating R 3 axes, 10 minutes Frequency(Hz) 20 80 350 2000 Sample Quantity: 4pcs	Acceleration variation : ±30% Rated current : 90mA Max
6-10	Free fall drop test	The Vibration that is attache fixture is dropped to a steel Direction ±X, ±Y, ±Z(Total Each face 3 times, Sample	Acceleration variation : $\pm 30\%$ Rated current : 90mA Max
6-11	Vibration Grms Force test	Fixture Material : ABS(D=1. Weight : 100±5% g Fixture Cubic Sample Quantity	



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7. Cautions

(1) Allowable range for use

Unless it is used in accordance with the specifications, the performance and life may be considerably reduced. Due attention should be paid to voltage and current ranges for use.

(2) Storage

Avoid storing in high temperature, high humidity or corrosive gas environment.

(3) Handling of motor

To handle the motor, hold the motor case softly.

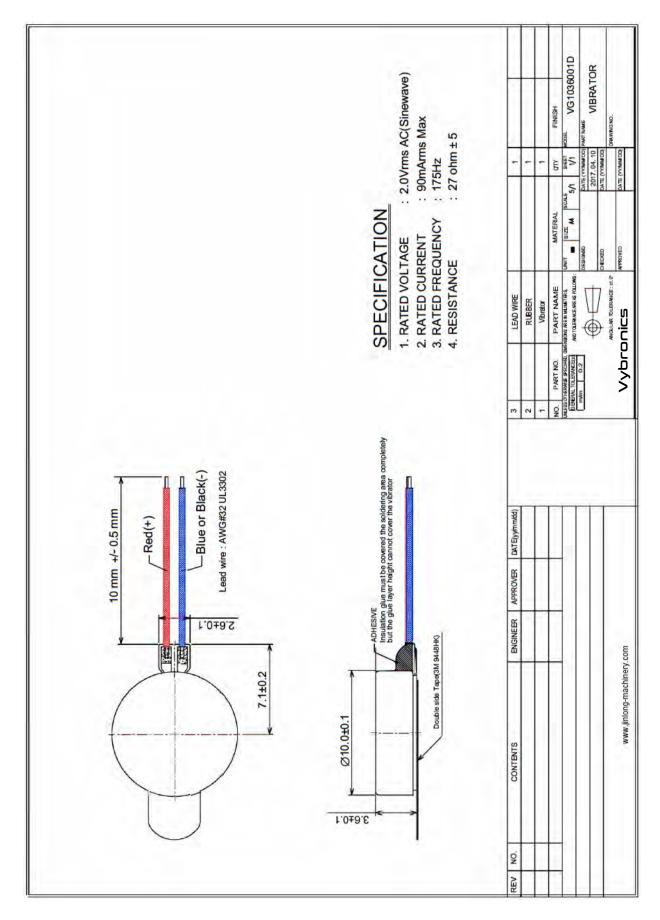
Do not bring a magnetized object near or into contact with the surface because there is a fear of performance being deteriorated.

Due attention must be paid to the handling and working environments because such objects.

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8. Outline drawing





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9. Change Records

Rev. No.	Rev. Date	Page No.	Revised Item	Reason
A/0	2017.04.20	/	产品颁布/ Release for Production	
A/1	2020.07.01	/	changed company name from JINLONG MACHINERY to VYBRONICS, changed part # from G1036001D to VG1036001D	Rebranding