



PUIaudio



Data Sheet

HD-EMC0803-LW20-2-R

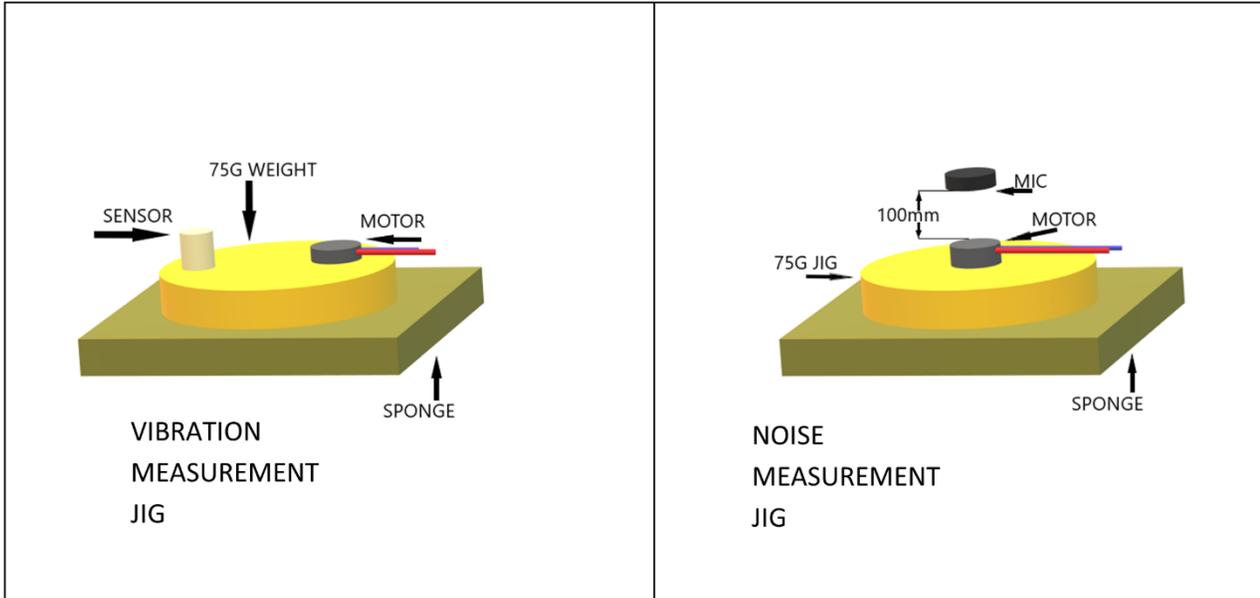
Features:

- Designed to be driven with a 3.0V DC signal
- Convenient 20mm lead wires and double-sided adhesive for easy implementation
- Generates 12,000 rpm with less than 50dB mechanical noise

Specifications

Parameters	Values	Units
Input Voltage (DC)	3.0	V _{DC}
Starting Voltage (DC)	2.4	V _{DC}
Operating Voltage Range (DC)	2.6 ~ 3.6	V _{DC}
Direction of Rotation	CW/CCW	-
Rated Speed	12,000 ± 3,000	RPM
Rated Current (Max at 3.6 V _{DC})	85	mA
Locked Current (Max at 2.4 V _{DC})	140	mA
Terminal Resistance	1 Phase: 30 ± 20% 2 Phase: 60 ± 20%	Ohms
Shaft Pull Strength (Min)	3	Kg
Shaft End Play (Max)	0.3	mm
Mechanical Noise (Max)	50	dBA
Environmental Compliances	RoHS/REACH	-
Weight	(approx.) 1	Grams
Storage Temperature	-40 ~ +85	°C
Operating Temperature	-20 ~ +60	°C

Measurement Methods (Temperature: 25±2°C; RH: 45 ~ 85%; Motor Position: Horizontally locked)

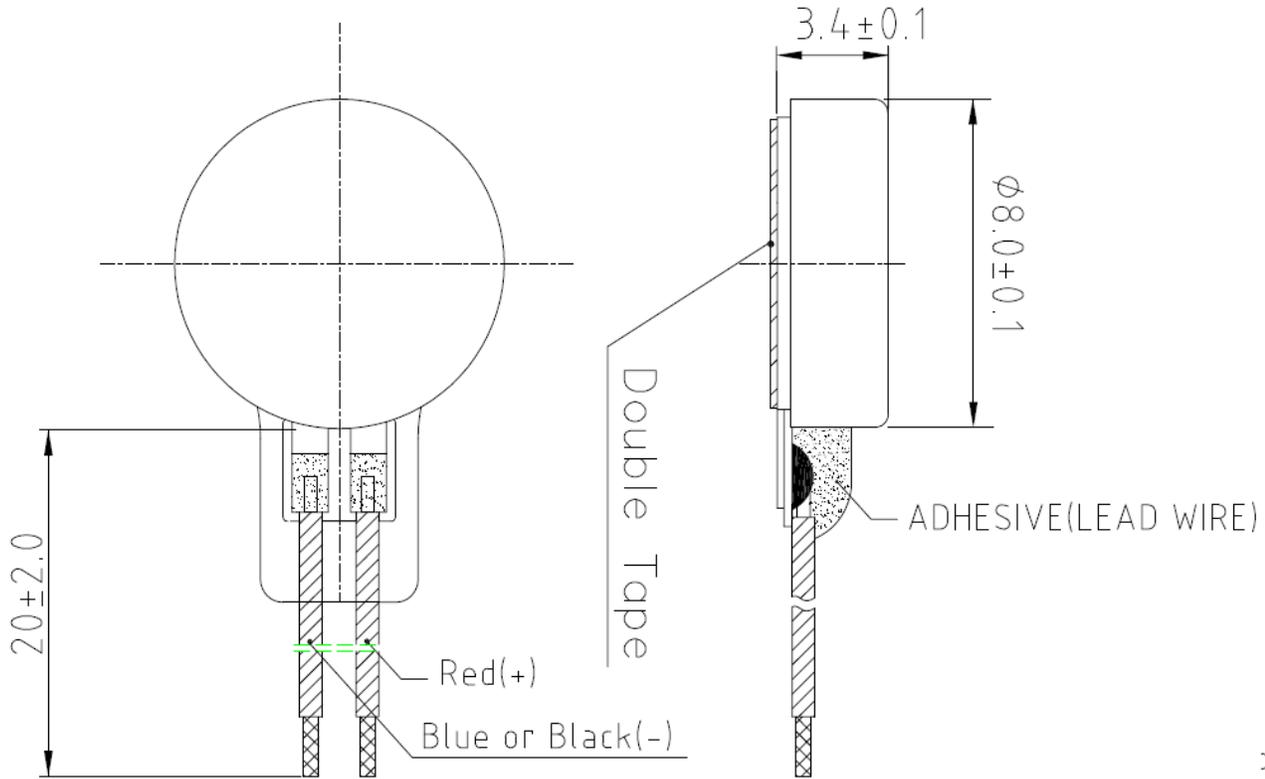


Reliability Testing

Type of Test	Test Specifications
High Temperature Test	Temperature: +85±2°C Test Duration Time: 96 hours
Low Temperature Test	Temperature: -40±2°C Test Duration Time: 96 hours
Humidity Test	Temperature: 70°C Relative Humidity: 90% Test Duration Time: 96 hours
Thermal Shock Test	Temperature Cycle: -40 to +85°C Cycle Time: 1 hour Test Repetition: 24 cycles (24 hours total)
Temperature Cycle Testing	Drive motor for 2 seconds on, 2 seconds off at rated voltage Repeat cycle shown 2 times (8 hours total)
Vibration Test	Vibration: 3mm, 1000cpm Test Axis: XYZ Test Repetition: 10 minutes per axis (30 minutes total)
Drop Test	Drop Condition: 1.5m onto iron plate at weight 150g Test Repetition: 6 times per side (36 total)
Load Test	60,000 operating cycles at room temperature Test Cycle: 2 seconds on, 2 seconds off

Rated current, speed, starting voltage, and mechanical noise must meet specifications after allowing the device to rest for 12 hours after test.

Dimensions



Packaging

Item	Tray	Inner Box	Outer Box
DIV.	PET	No inner box 1 bundle 215(L) x 170(W) x 60(H) 1,000ea	Outer box size is different one by packing quantity
Dimension	215(L) x 170(W) x 11(H)		
Quantity	100ea		

Specifications Revisions

Revision	Description	Date
A	RELEASED FROM ENGINEERING	04/08/2022

Note:

- Unless otherwise specified:
 - All dimensions are in millimeters.
 - Default tolerances are ± 0.5 mm and angles are $\pm 3^\circ$.ssw
- Specifications subject to change or withdrawal without notice.