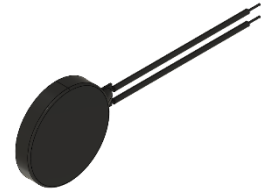




PUIaudio



Data Sheet

HD-EMC1002-LW20-R

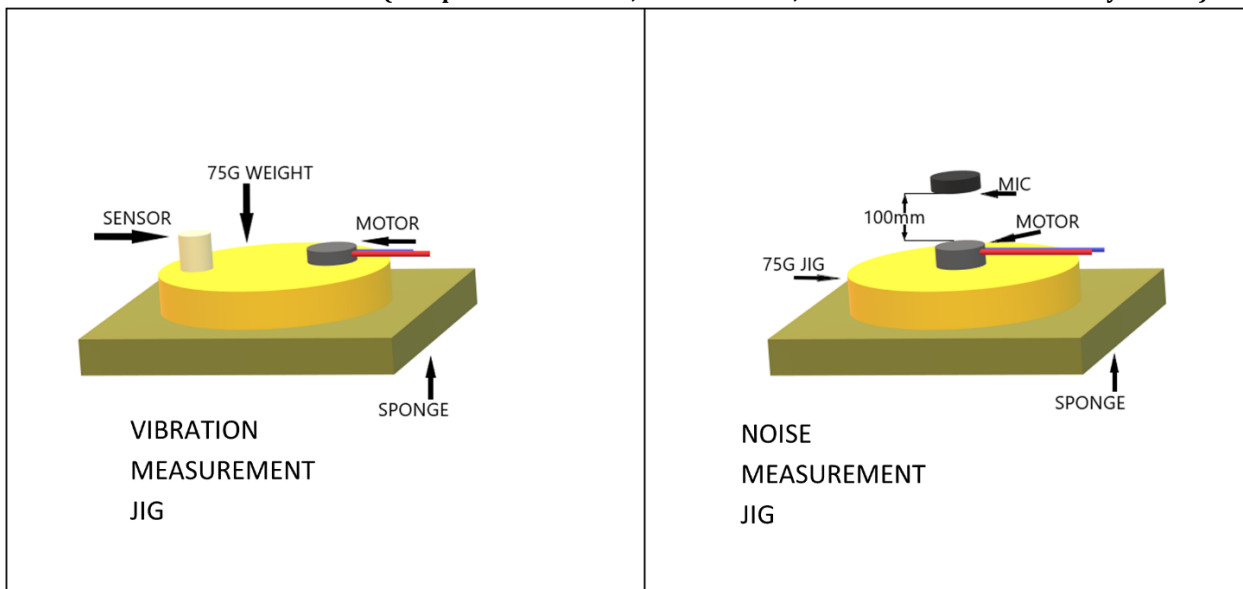
Features:

- 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

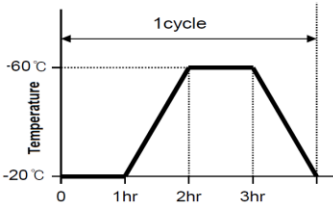
Specifications

| Parameters | Values | Units |
|--|--|-----------------|
| Input Voltage (DC) | 3.0 | V _{DC} |
| Starting Voltage | 2.4 | V _{DC} |
| Operating Voltage Range (DC) | 2.5 ~ 3.6 | V _{DC} |
| Direction of Rotation | CW/CCW | - |
| Rated Speed | 12,000 ± 3,000 | RPM |
| Rated Current (Max at 3.0 V _{DC}) | 80 | mA |
| Locked Current (Max at 2.4 V _{DC}) | 130 | mA |
| Terminal Resistance | 1 Phase: 30 ± 20% 2 Phase: 60 ± 20% | Ohms |
| Shaft Pull Strength (Min) | 1 | Kg |
| Mechanical Noise (Max) | 50 | dBA |
| Environmental Compliances | RoHS/REACH | - |
| Weight | (approx.) 1 | Grams |
| Storage Temperature | -40 ~ +85 | °C |
| Operating Temperature | -30 ~ +70 | °C |

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

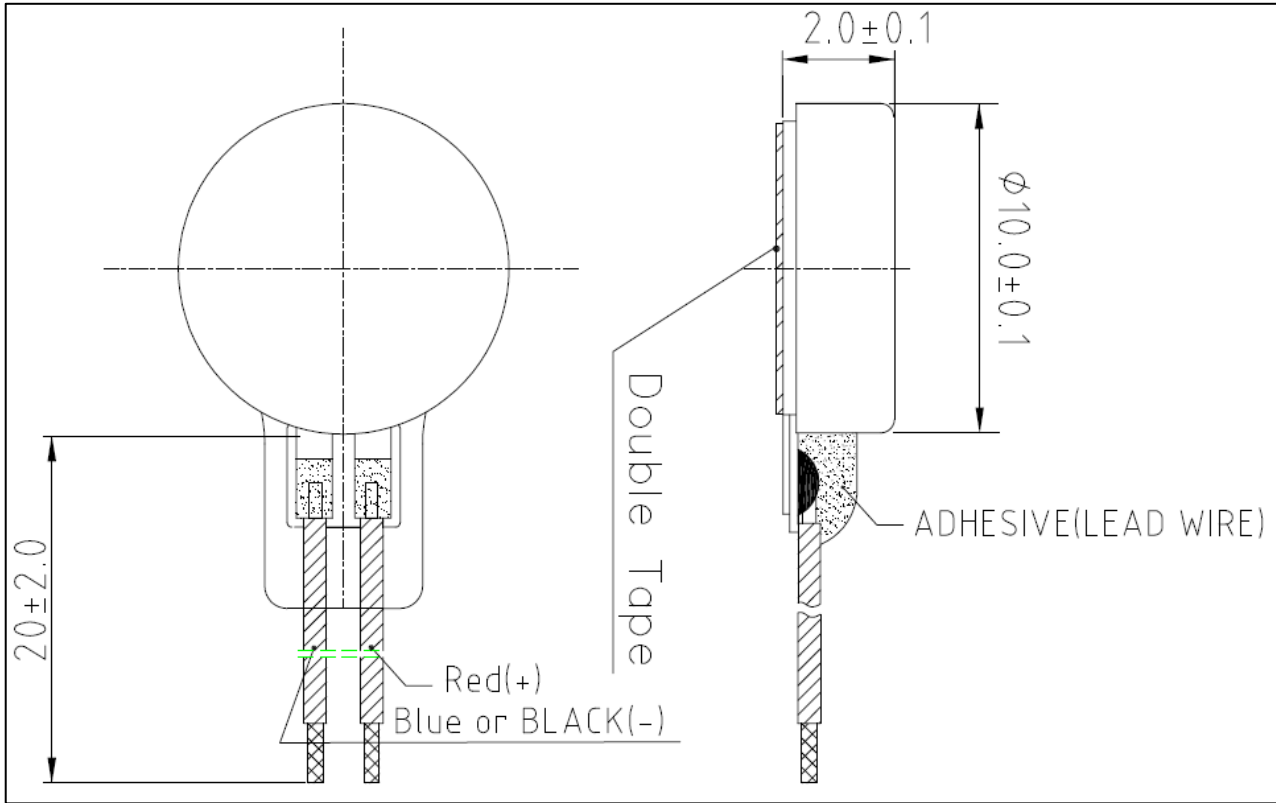


Reliability Testing

| Type of Test | Test Specifications |
|---------------------------|---|
| High Temperature Test | Temperature: $+85\pm 2^{\circ}\text{C}$ Test Duration Time: 96 hours |
| Low Temperature Test | Temperature: $-40\pm 2^{\circ}\text{C}$ 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 $+85^{\circ}\text{C}$ Cycle Time: 1 hour Test Repetition: 24 cycles (24 hours total) |
| Temperature Cycle Testing | Drive motor for 2.0 seconds on, 2.0 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: 2.0 seconds on, 2.0 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:

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