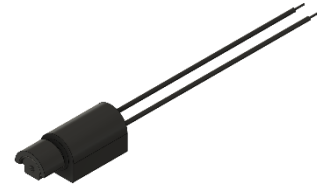




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Data Sheet

HD-EMB1205-LW30-R

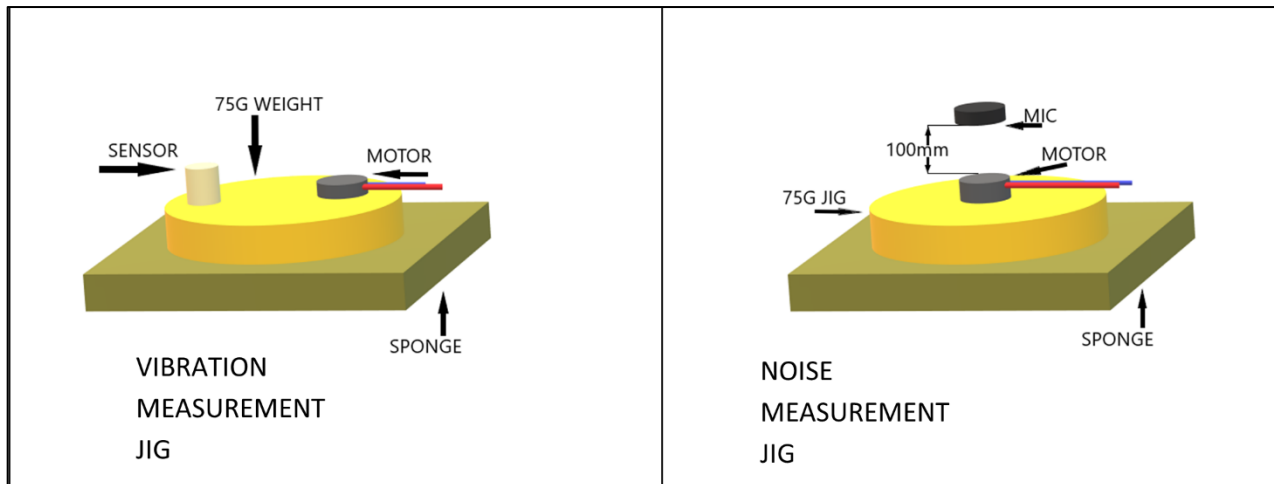
Features:

- Designed to be driven with a 3V DC signal
- Convenient 30mm lead wires for easy implementation
- Generates 10,000 rpm with less than 50dB mechanical noise

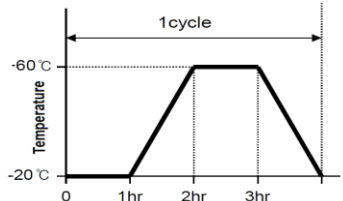
Specifications

Parameters	Values	Units
Input Voltage (DC)	3	V _{DC}
Starting Voltage (DC)	2.4	V _{DC}
Operating Voltage Range (DC)	2.5 ~ 3.7	V _{DC}
Direction of Rotation	CW/CCW	-
Rated Speed	10,000 ± 3,000	RPM
Rated Current (Max at 3.0 V _{DC})	90	mA
Starting Current (Max at 2.4 V _{DC})	130	mA
Terminal Resistance	30 ± 20%	Ohms
Shaft Pull Strength (Min)	3	Kg
Shaft End Play (Max)	0.3	mm
Mechanical Noise (Max)	50	dBA
Housing Material	SPC	-
Environmental Compliances	RoHS/REACH	-
Weight	(approx.) 1	Grams
Storage Temperature	-40 ~ +85	°C
Operating Temperature	-20 ~ +60	°C

Measurement Methods



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 0.5 seconds on, 0.5 seconds off at rated voltage Repeat cycle shown 2 times (8 hours total)  The graph shows a temperature cycle. The y-axis is labeled 'Temperature' with values -20°C and -60°C. The x-axis is labeled with time: 0, 1hr, 2hr, 3hr. The cycle starts at -20°C at 0hr, ramps up to -60°C at 1hr, holds at -60°C until 2hr, and then ramps back down to -20°C at 3hr. A horizontal double-headed arrow labeled '1 cycle' spans from 0hr to 3hr.
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: 2 times per side (12 total)
Load Test	200,000 operating cycles at room temperature Test Cycle: 0.5 seconds on, 0.5 seconds off

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

Item	Tray	Inner Box	Outer Box
DIV.	PET	Carton box	Carton box
Dimension	141(L) x 150(W) x 11(H)	150(L) x 160(W) x 115(H)	330(L) x 330(W) x 270(H)
Quantity	50ea	1,000ea	8,000ea

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