MH2000
Portable Laser Vibration Analyzer

Product introduction

MH2000 is a portable laser Doppler vibrometer (HLDV) for convenient handheld non-contact vibration testing. It features an integrated data processing unit, computing unit, and rechargeable battery, allowing for quick measurements in field or factory environments. At its core, MH2000 utilizes an integrated optical chip that integrates optical coherent light paths, modulation light paths, and other components onto a single optoelectronic chip, overcoming the drawbacks of traditional discrete components such as large volume and greatly enhancing the convenience of laser Doppler vibrometer in-field usage. The MH2000 features a sampling rate of 65 Msps, ensuring excellent noise tolerance. This capability supports a maximum testing distance of up to 10 meters.

The MH2000 leverages innovative block decoding capability and an integrated optical design, allowing the instrument test result to remain stable despite shaking and in-plane movement in the measurement environment. As a laser Doppler vibrometer, it supports both handheld and fixed measurements simultaneously. This versatility enables the MH2000 to conduct rapid non-contact vibration measurements in noisy environments, such as outdoor areas and factories. It accurately captures vibration displacement, velocity, and acceleration information of the object under test.MH2000 features an LCD touchscreen and rich measurement analysis functions. Additionally, MH2000 includes a USB Type-C interface for device charging and data transfer.

Product features

- Non-contact laser Doppler vibration measurement.
- Supports both handheld and fixed measurement modes.
- Advanced anti-vibration algorithm.
- Complies with ISO vibration testing standards.
- Built-in time-frequency domain analysis capability.
- Accurate measurement of vibration displacement.
- velocity, and acceleration Data recording and analysis functionality.
- LCD display.
- Real-time audio output.
- Triangular tripod system.
- Type-C charging and communication interface.
- 1310nm measurement laser + 655nm red light indicator.
- Includes rechargeable battery, sustain able use for over 3 hours.
- Replaceable lens group, suitable for various scenarios.

Application scenarios

Industrial vibration inspection

Rapid vibration fault diagnosis

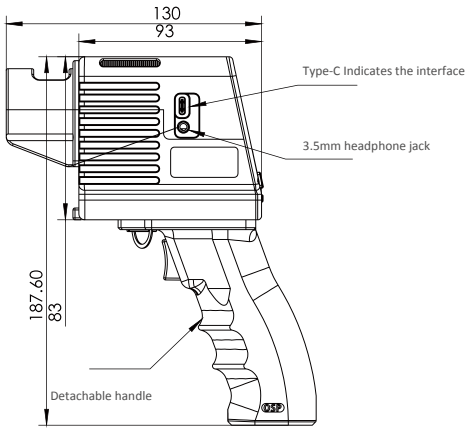
Abnormal noise locating

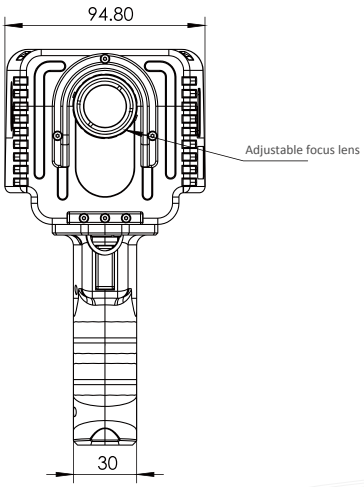
Performance parameters

Basic parameters			
Model	MH2000B	MH2000S	MH2000P
Detection distance(m)	0.4 - 3	0.3 - 5	0.3 -10
Frequency range(Hz)	DC-3000	DC-10000	DC- 100k
Frequency accuracy(Hz)	0.1	0.01	0.01
Displacement accuracy(%)	0.1	0.1	0.1
Static testing range(mm/s)	<1500	<4500	<4500
Dynamic measurement testing range(mm/s)	<10	<50	<200
Velocity resolution(mm/s)	0.1	0.01	0.01
Acceleration resolution(mg)		0.1	0.1
Data output rate(sps)	<100k	<1.25M	<5M
Measurement light wavelength(nm)	1310	1310	1310
Measurement light safety rating	Class I	Class I	Class I
Indicator light wavelength(nm)	655	655	655
Indicator light safety rating	Class II or adjustable	Class II or adjustable	Class II or adjustable
Lens focusing	Manual	Manual	Manual
Dynamic anti-shake testing capability	yes	yes	yes
Data statistics function	time domain	time domain, FFT domain	time domain, FFT, STFT domain
Audio output	None	None	Real-time output
Output to external storage	None	SD card	SD card
Charging	USB Type-C Supports optical data output	USB Type-C Supports optical data output	USB Type-C Supports optical data output
light	"Three primary colors" LED indicator lamp	"Three primary colors" LED indicator lamp	"Three primary colors" LED indicator lamp
LCD touchscreen	Yes	Yes	Yes
Buttons	Yes	Yes	Yes
Audio interface	None	None	3.5mm wired headphone jack
Usage method	Supports handheld or tripod mounting	Supports handheld or tripod mounting	Supports handheld or tripod mounting
Power supply method	Lithium battery	Lithium battery	Lithium battery
Battery life(h)	3-4	3-4	3-4
Weight(g)	<800	<800	<800

*The above performance parameters apply to the fixed measurement mode.

Diagram illustrating product button functions





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