

MFSS-10

10-channel synchronous measurement system

Product Introduction

The MFSS-10 Multi-channel Measurement System is a fully integrated vibration testing system specifically designed for high-precision, multi-channel synchronous measurement tasks. Developed by OmniSensing Photonics, this system can connect to a variety of vibrometer sensing modules. It is capable of simultaneously connecting up to 10 vibrometer or interferometers, supporting synchronous data acquisition of key metrics such as vibration displacement, velocity, accelera.



Key features of the MFSS-10 include efficient data management and processing control functions that facilitate continuous, long-term measurement with multi-channel sensors. The system also offers capabilities for external trigger and synchronous measurement, which enhance the flexibility and efficiency of data acquisition. Its robust data storage capabilities ensure comprehensive long-term data accumulation and analysis.

Additionally, the MFSS-10 supports a distributed measurement arrangement of sensors, allowing for remote testing with distances of up to 15 meters between sensors and the main unit. This feature is particularly beneficial for synchronous measurement of large structures, ensuring accurate multi-channel synchronous data acquisition from large targets.

The accompanying user control software is compatible with both Windows and Linux operating systems, providing users with the flexibility to choose the version that best suits their needs. The software interface is designed to be user-friendly and easy to operate, and it includes options for customization of user analysis functions and database management, tailored to meet the specific requirements of various industries and clients.

Product Features

- Industrial-grade control unit.
- Suitable for multi-point real-time modal measurement.
- Suitable for multi-point transfer function measurement.
- Supports continuous measurement.
- Supports internal and external trigger. synchronous measurement.
- Includes data storage capability.
- Includes user-end control software.
- Customizable user analysis functions.

Supported Sensors

Model Number	Category	Description
MotionGo	Universal Laser Vibrometer	high-performance, with indication of displacement, velocity, acceleration, absolute distance
MV-H/G sensors	Micro Doppler vibration displacement sensor	high-performance displacement sensor
MMX sensors	laser interferometer sensor	High performance laser positioning sensor, 10nm accuracy
Motion-Go 3D	In plane Vibration Displacement Sensor	in-plane and out-of-plane vector vibration measurement

Performance parameters

Functional item	Functional subclass	Description
Model		MFSS-10
measurement capability	Maximum number of connected channels	10
	Sensor connection range(m)	<15
	Synchronization accuracy(μm)	<0.2
	Measurement content of a single channel	Displacement, velocity, acceleration, absolute distance
	Multi-channel measurement content	FRF, modal data, physical dimensions
	Measurement bandwidth(Hz)	DC-2.5M
	Maximum test distance(m)	40
	Maximum displacement measurement accuracy(nm)	1
	Maximum distance measurement accuracy(pm)	1
Software features	operating system	Windows
	Quantitative method	continuous mode, triggered mode
	Signal analysis function	Configurable window function, configurable digital wave recorder (low pass, high pass, band pass) median filter.
Physical interfaces	touchscreen(inch)	8.9
	100Base-T	12
	USB 3.0	6
	video	HDM
	audio	3.5mm wired headphone jack
Power supply	Voltage(V)	AC 110/220

Product profile dimensions

UNIT: mm

