DAEIL

Vibration Isolation Systems

DVIA-B TYPE

FLOOR PLATFORM ACTIVE VIBRATION ISOLATORS

DVIA-B type Floor Platform Active Vibration Isolators designed for electron microscopes and ultra-precise measuring equipment control vibrations in the very low frequency ranges. It has the high-performance digital controller that we have developed for years, and adopts an Advanced Control Scheme.
Pneumatic springs support heavy payload, and strong linear actuators control the vibrations. Unlike general pneumatic actuator for heavy load, linear actuators operated by electric power require low air consumption, so only small air compressor and power source are used for operation.

General Specifications

- Load Capacity : 500 ~ 2,500 kg
- Size : Upon customer's requirement
- Total height : 227 mm

Features

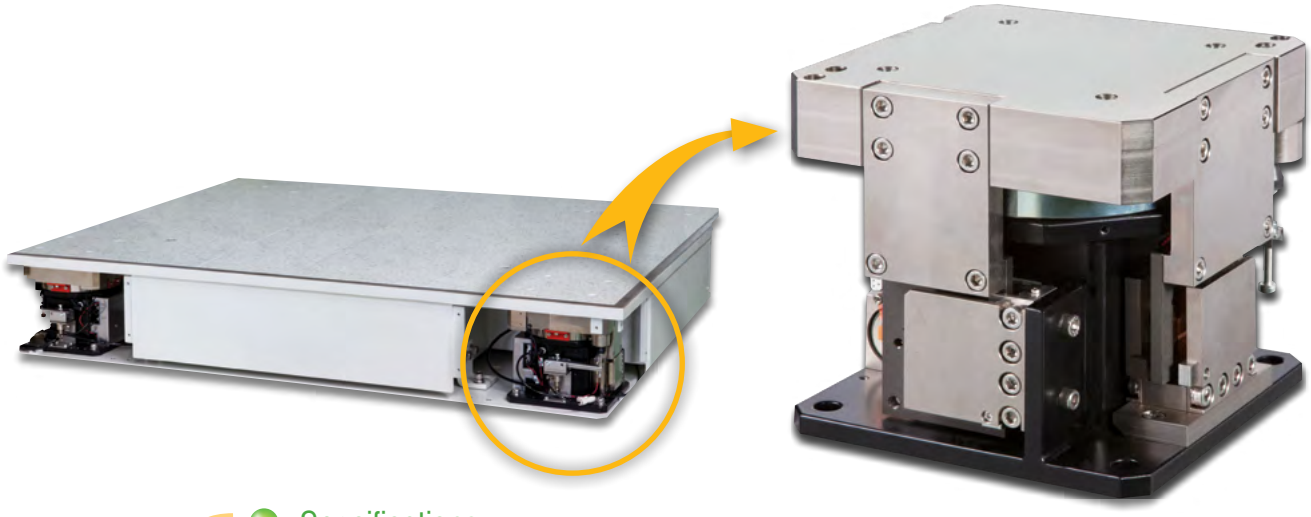
- Optimized Settings
  Exclusive Program enabling the observation of the vibration wave of environment, offering the most suitable solution
- Robust control by high-performance digital controller
- Excellent isolation performance in the low frequency domain
- Designed for mass loading (500~3,500kg)
- Low air consumption (equivalent to passive isolators)

Application

- Scanning Electron Microscopes (SEM)
- Transmission Electron Microscopes (TEM)
- Atomic Force Microscopes (AFM)
- Scanning Probe Microscopes (SPM)
- Scanning Tunneling Microscopes (STM)
- Other ultra-precise measurement systems

(주)대일시스템

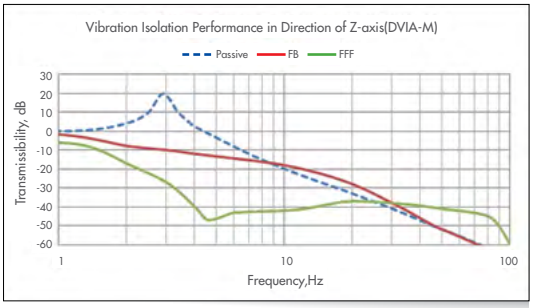
Isolator : DVIA-M SERIES ACTIVE VIBRATION ISOLATORS



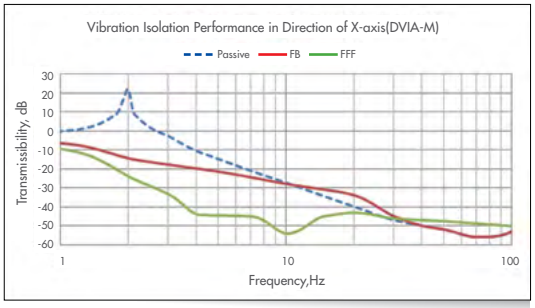
Specifications

Model No.		DVIA–M1000	DVIA–M3000
Dimensions (mm)	Unit	215 (W) × 215 (D) × 180 (H) mm	232 (W) × 232 (D) × 180 (H) mm
	Controller	335 (W) × 357 (D) × 120 (H) mm	335 (W) × 357 (D) × 120 (H) mm
Max. Load Capacity (kg)		500~1700	1500~3500
Weight (kg)		12	15
Actuator		Using Electro–Magnetic Force	
Controlled degrees of Freedom		6	
Isolation Performance		Please refer to the below pictures	
Settling Time		〈 0.5 sec	
Control Force		Vertical 〉 20N, Horizontal 〉 40N 4 Module basis	
Input Voltage (V)		AC 85~264/50~60 Hz	
Power Consumption (W)		Maximum 110W, below 50W in stable conditions	
Required Air Pressure		Over 0.5MPa (Equivalent to passive isolators)	
Temperature (℃)/Humidity (%)		5~50/20~90	
System Composition		4units of isolators and a separate controller	
Active Control Range		about 0.5Hz~100Hz	
Leveling		Automatic adjustment by leveling valves	
Lock when moving		Locking system	
Confirmation of Vibration Isolation Status		LED display on the control box. When connected to a computer, the exclusive program allows users to confirm the detailed vibration signals.	

• Picture 1–Vertical Transmissibility



• Picture 2–Horizontal Transmissibility



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