

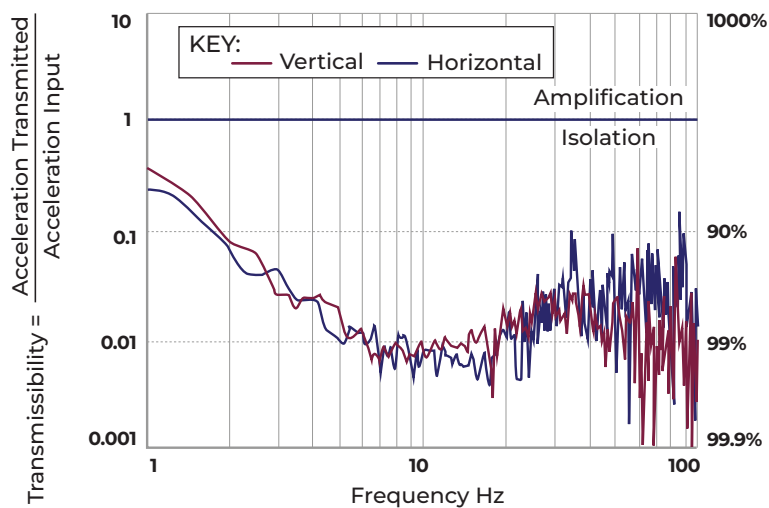
# DAEIL SYSTEMS DVIA-MB

## DESCRIPTION

The DVIA-MB Series is the preferred active vibration isolation system for high- & ultrahigh-resolution electron microscopes and analytical equipment. The sophisticated active vibration control algorithms deliver top-tier performance in six degrees of freedom.



## VIBRATION TRANSMISSIBILITY



50% – 80% vibration isolation at 1 Hz  
≥90% vibration isolation at ≥2 Hz

## KEY FEATURES

### Exceptional Low & High-Frequency Active Vibration Isolation

The DVIA-MB's active component isolates vibrations from 0.1 Hz to around 20 Hz, while the passive system excels beyond 20 Hz.

### Highly Configurable Based on Unique Instrument Footprint & Location

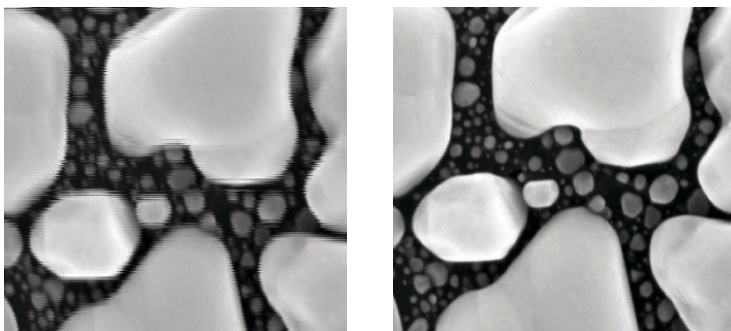
Customizable to integrate with enclosures, raised floor pedestals, integrated electronics cabinets, and standard designs for Thermo Fisher TEMs.

### More Resistant to Variations in Floor Stiffness

Uses a pneumatic passive component and feedforward control for active isolation, making it less dependent on floor stiffness than piezoelectric systems.

### Low Power Consumption Requirements

Integrated pneumatic isolators allow the active isolators to consume less power than other systems while providing outstanding low-frequency isolation performance.



Before

After



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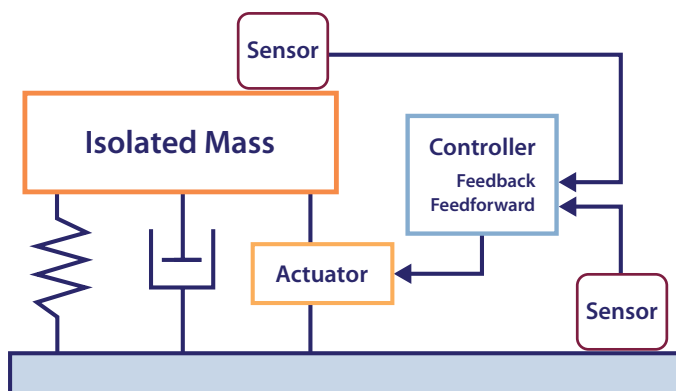
## INSTALLATION EXAMPLES



VEC has the ability to install the DVIA-MB for a wide variety of instruments & environments.

## HOW DOES DVIA-MB WORK?

The DVIA-MB uses the feedback & feedforward control systems to continuously detect vibrations disturbing an isolated payload base and instantaneously react to minimize vibration in real time.



## TECHNICAL SPECIFICATIONS

Model No.		DVIA-MB1000	DVIA-MB3000	DVIA-MB6000
Dimensions (WxDxH)	Isolator Unit	180 x 180 x180 mm	232 x 232 x180 mm	308 x 308 x 180 mm
	Platform	Custom-Made		
Maximum Load Capacity		500 – 1,700 kg	1,500 – 3,500 kg	3,000 – 6,000 kg
Actuator		Electromagnetic Actuator		
Maximum Actuator Force		Vertical: 40 N, Horizontal: 20 N		Vertical: 80 N Horizontal: 40 N
Active Isolation Range		0.5 – 100Hz		
Degrees of Freedom		6 degrees		
Vibration Isolation Performance		≥90% at 2 Hz / 99% at 10 Hz		
Input Voltage (V)		AC 80 – 260 V / 50-60 HZ		
Power Consumption (W)		Maximum 110 W, Below 50W in normal operation		
Operating Range	Temperature (°C)	5 – 50 °C		
	Humidity (%)	20 – 90%		
Required Air Pressure		≥5 kg/cm <sup>2</sup>		
Settling Time		≤0.3 sec*		

\*0.3 sec settling time is measured after 90% reduction of input. (The settling time varies with several conditions, such as payload, force, natural frequency, etc.)



For more information about the DVIA-MB, scan this QR code



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