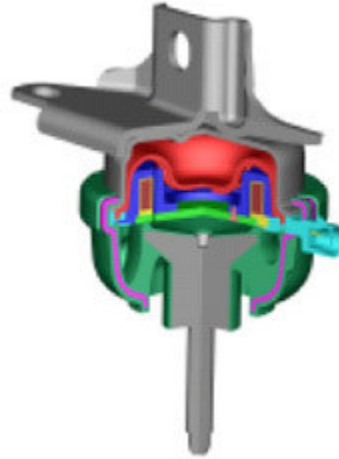


# Delphi Magneto-Rheological (MR) Powertrain Mount

Delphi is well known around the world for providing a wide range of vehicle innovations. As a manufacturer of components, modules, and systems for each segment of the vehicle, Delphi specializes in tailoring products to support each customer's specific requirements. For example, with expertise in the areas of suspension, brakes, and steering, Delphi can simply provide a suspension system or integrate ride dynamics technologies to create a complete chassis system.



Delphi's expertise extends to the design and manufacture of a complete line of powertrain and suspension mounts, including adaptive hydraulic mount systems, to meet a range of automotive requirements. Numerous technical centers and manufacturing sites located from North America to China help Delphi provide personalized customer service and timely delivery of products.

### ► Description

By using magneto-rheological (MR) fluid in the Delphi MR powertrain mount, the damping and dynamic stiffness properties of the mount can be instantaneously controlled during a variety of road inputs, including uneven surfaces, potholes, and bumps. The MR mount also helps control the engine's torque transient response to the engagement and shifting of gears. The MR powertrain mount system comprises the appropriate MR mount(s), a sensor or sensor set, a system controller (electronic control unit), and the associated wiring.

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Features	Benefits
Instantaneous changes in mount properties (dynamic stiffness and damping)	Provides a better compromise between isolation and bounce control through improved control of powertrain vertical motions, while maintaining low rate for isolation at low displacements (idle and engine-induced motions)
Available with substantial low-frequency damping control	Can use low-frequency rate and damping authority to help control powertrain motions due to torque transients
Comparable in size to a hydraulic passive mount	Direct bolt-in replacement for passive hydraulic fluid mount

### ▶ Typical Applications

The MR powertrain mount is applicable to front- and rear-wheel-drive engine configurations. The controllable MR mount can be applied as a load-bearing mount to help control vertical motion of the powertrain, or as a torque-reaction mount to help control motion due to torque transients. Ideally, it would be applied as a combination of both. The MR mount is appropriate for passenger cars, SUVs, and light- and medium-duty trucks.

### ▶ Performance Advantages

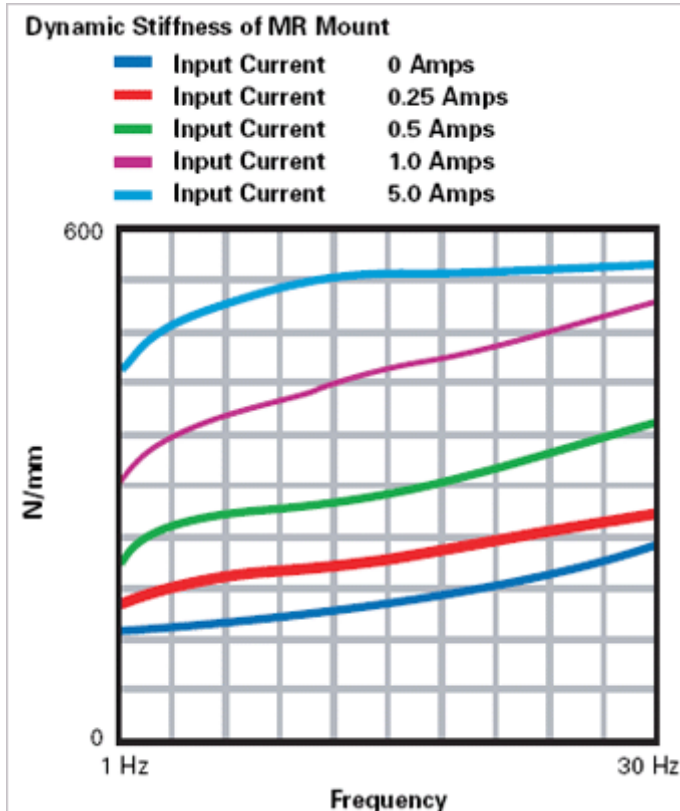
The MR powertrain mount uses magneto-rheological fluid instantaneous-change-in-state technology. This helps enable real-time control of the mount dynamic properties, which allows the mount to adapt to road and powertrain motion inputs. As a result, the driver and passengers experience less noise, bounce, and vibration from the powertrain and suspension systems.

### ▶ Availability

The MR powertrain mount is scheduled to be available for the 2007 model year.

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### ► Performance Specifications



### Delphi Magneto-Rheological (MR) Powertrain Mount

