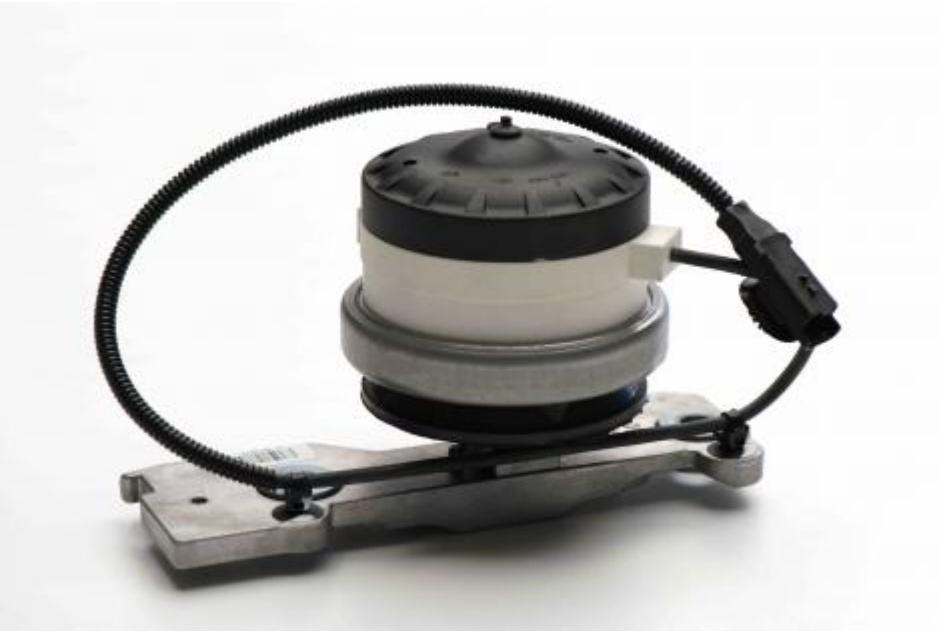
SMARTDAMPER®



Our SmartDamper® neutralizes vibrations and improves the acoustic comfort for vehicles' drivers and passengers. It also contributes to CO_2 emissions reduction by enabling the implementation of innovative solutions to reduce fuel consumption, weight and emissions. Removing balance shafts in 4 and 3 cylinder engines, downsizing engines, and applying cylinder deactivation are some examples. It solves the most complex NVH issues by addressing several engine orders simultaneously and provides unique NVH performance. Our SmartDamper® is designed to cancel vibrations from engines, particularly internal combustion engines, guaranteeing superior passenger comfort when the vehicle is at idle or in motion.

- Products Family: **Engine Suspension NVH & Acoustics**

TECHNICAL FEATURES

- The comprehensive system includes an electromagnetic inertial actuator, a sensor and an electronic control unit.
- Operates in a closed-loop control connected to the vehicle CAN.
- Does not attach to the engine mount system.

BENEFITS

- Sensor Integration
- Energy Efficiency

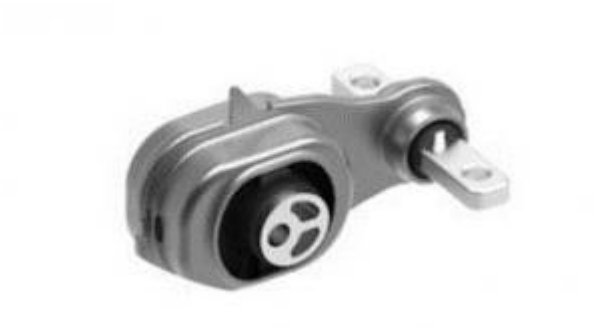
MARKET AND EXPERTISE

AUTOMOTIVE & TRUCKS

Vibration Control Systems

ALL PRODUCTS FAMILIES

All Products Families for Automotive Vibration Control Systems



Engine Suspension NVH & Acoustics

Our Engine Suspension NVH & Acoustics solutions are designed to absorb vibrations from engines, particularly internal combustion engines, guaranteeing superior passenger comfort when the vehicle is idle or in motion.

Chassis NVH & Acoustics

Our Chassis NVH & Acoustics solutions are designed to dampen vibrations from the road and absorb shocks. They play a key role in improving vehicle performance, safety and passenger comfort.

Metal Mesh Technology

The metal mesh cushions consist of knitted and pressed wire which offers absolutely constant behavior over a wide temperature range and provide the perfect solution for vibration isolation and damping.

Decoupling Element for Gasoline Direct Injection Systems

Decoupling Elements with integrated metal cushion are used for Gasoline Direct Injection Systems, to solve the problem of the high vibration emission of the needle valve on the cylinder head. Air- and structure-borne noise can be minimized.

Metal Isolator

Metal Isolators consist of one or more Metal Mesh Cushions combined with load-bearing and surrounding metal parts. It combines the technical benefits of the metal mesh with a multi-directional load capacity and functionality.