



Immediate Release
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BORGWARNER SUPPLIES ADVANCED SOLENOID TECHNOLOGY
FOR GM HYBRID ELECTRIC VEHICLES

*BorgWarner's Mini Direct-Acting Variable Force Solenoid
Improves Transmission Oil Pump Efficiency*

Auburn Hills, Michigan, September 30, 2015 – BorgWarner produces its mini direct-acting variable force solenoid (VFS) in Water Valley, Mississippi, for the 2016 Chevrolet Volt, Chevrolet Malibu hybrid and Cadillac ELR as well as future General Motors (GM) vehicle applications powered by the same transmission. For these applications, BorgWarner's mini direct-acting VFS controls line pressure from the transmission oil pump. Designed to deliver increased accuracy with significantly lower leakage, the advanced solenoid reduces parasitic losses from the pump, saving battery power to propel the vehicle.

“Proven in GM's global front-wheel drive 6-speed automatic transmission program for a range of Chevrolet, Buick and GMC vehicles, BorgWarner's mini direct-acting VFS technology adapts easily from combustion to hybrid powertrains, making this solenoid a fast-to-market solution for automakers,” said Robin Kendrick, President and General Manager, BorgWarner Transmission Systems. “Our latest hydraulic control technology demonstrates BorgWarner's drivetrain expertise in a variety of applications.”

BorgWarner's mini direct-acting VFS features an optimized hydraulic design to deliver increased accuracy compared with variable bleed solenoids. Substantially less leakage also allows the transmission to operate with lower main supply pressures, which reduces pump demands and improves energy efficiency. Suited for a variety of applications, BorgWarner's mini direct-acting VFS is virtually insensitive to temperature and supply-side pressure variations, making the transmission easier to calibrate.

BorgWarner Inc. (BorgWarner Supplies Advanced Solenoid Technology for GM Hybrid Electric Vehicles) – 2

About BorgWarner

BorgWarner Inc. (NYSE: BWA) is a product leader in highly engineered components and systems for powertrains around the world. Operating manufacturing and technical facilities in 57 locations in 18 countries, the company delivers innovative powertrain solutions to improve fuel economy, reduce emissions and enhance performance. For more information, please visit borgwarner.com.



BorgWarner's mini direct-acting variable force solenoid is a fast-to-market control solution for a wide range of powertrains, including combustion and hybrid electric.

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