

January 26, 2024

Company: Nidec Power Train Systems Corporation
Representative: Noboru Kaneko (Representative Director and President)
Address: 2-24-1 Sobudai, Zama City, Kanagawa, 252-8570, Japan

Nidec Power Train Systems Develops Industry-first Solenoid Valve for Blow-by Gas Leak Diagnosis

Nidec Power Train Systems Corporation (“Nidec Power Train Systems” or the “Company”), a wholly owned subsidiary of Nidec Corporation, announced today that it has developed a solenoid valve for automotive engines’ blow-by gas leak diagnosis.



Nidec Power Train Systems’ Latest Solenoid Valve for Blow-by Gas Leak Diagnosis

In any internal-combustion engine, there is a tiny gap between its piston and the cylinder containing it, from which high-pressure exhaust steam from the combustion stroke and unburned mixture leak into the crankcase. Such gas, called blow-by gas, causes air pollution. This is why recent cars are required to have a closed crankcase to keep such gases, and use a reducing device to return internally accumulating gas to the inlet pipe, thereby to mix the gas with newly inspired air, and send the mixture into the combustion chamber again.

In North America, **meeting the requirements of the On-Board Diagnostics II (OBDII)** of the California Air Resources Board (CARB), the world’s strictest rules of their kind, **requires a car to have a blow-by gas leak diagnosis function installed, and the above product is the industry’s first model to satisfy those needs.**

This product, which is connected to a breather hose that reduces blow-by gas, is used to block a gas passage during a leak diagnosis. Thus, measuring the pressure inside the engine, including the breather hose, enables a diagnosis to see if blow-by gas is leaking to the outside.

The inside of the blow-by gas passage of this and other products requires high reliability, as it is subject to harsh environments caused by, for example, the retention of unburned gas, engine oil, etc., and low temperatures. In that regard, Nidec Power Train Systems, a long-time developer and manufacturer of transmissions and engine solenoid valves, successfully utilized its knowhow to develop this new product.

As a member of the world’s leading comprehensive motor manufacturer, Nidec Power Train Systems stays committed to developing products based on its technologies to create light, thin, short, small, high-efficiency, and highly controlled products, and proposing, at an overwhelming speed, groundbreaking solutions that contribute to the evolution of automobiles.

For more details on the above product, please contact Nidec Power Train Systems Corporation at +81-46-252-3131. Thank you.

-###-