

A controller is required for a brushless motor to function, so it goes without stating that one is required to operate a brushless fuel pump. Basic controllers have functionality for simple plug-and-play, designed for maximum flow at 100 percent duty cycle, while high-end controllers allow for full control with variable pressure ranges and duty cycles. The brushless fuel pump also has the ability to be fully integrated with an OEM or aftermarket Engine Control Unit (ECU). Employing a controller allows for the motor speed to be increased or decreased to the desired flow rate to maintain optimal fuel pressure. Additionally, the fuel pump speed can be turned on and off, as required, for vehicles with stop-start systems.

Furthermore, a brushless fuel pump can last longer than a brushed fuel pump – more no-wear components increase longevity. These no-wear parts lead to less overall heat created by friction achieving greater efficiency with minimal electrical load.

Brushless fuel pumps are capable of full “tune-ability.” Through the use of the controller, it’s possible to change the fuel demand to a higher flow rate for racing applications with the ability to change it back to a lower flow rate for street use. Unheard of before brushless fuel pumps, this has created an advantage for the weekend racer who commutes with the same car or even just drives back and forth to an event.

Does Your Car Need a Brushless Fuel Pump?

While a brushless fuel pump provides obvious advantages, it may not necessarily provide an advantage to your application. This advanced technology comes with a higher cost for the pump and the needed controller. The advantages of controllability and efficiency throughout its life may outweigh the increased cost. Cars with older fuel injection or carbureted fuel systems may not reap the advantages of a brushless fuel pump, but it may be advantageous to consider it if your plans include upgrading to a more modern and advanced fuel system.

Contact your TI Automotive representative if you have any questions about upgrading to a brushless fuel pump.

ABOUT TI AUTOMOTIVE

Fluid thinking™ shapes the mindset of TI Automotive. Global automotive manufacturers turn to TI Automotive to develop and produce industry-leading automotive fluid systems technology. Two-thirds of the world’s vehicles contain technology from TI Automotive.

With 28,700 employees at more than 114 locations in 28 countries, our strength lies in our ability to creatively meet and exceed the increasing fuel economy and emissions regulations of tomorrow’s auto industry.



OUR MICHIGAN MANUFACTURING SITE

The Caro, MI plant is TI Automotive’s high-performance and aftermarket fuel pump and module manufacturing site. Our fuel pumps and modules are never manufactured or assembled by a third party or sourced from an outside company.