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Pierburg GmbH

Electric throttle bodies use actuator modular concept

The throttle body is the component that translates the driver's demands regarding torque and other functions such as driveability and idle speed control, as well as comfort functions like cruise control or antiskid control. Pierburg GmbH has been producing throttle bodies since 1952 and today has reached its fourth product generation of electric throttle bodies.

The outstanding feature of this is a higher level of functional integration – fewer total individual parts are needed to fulfil all functions, which favourably affects costs. One new item is the use of so called ECO-sensors. At significantly reduced costs, they offer all the advantages that only full redundant sensors could offer until now: even though only one sensor element is employed they provide two independent output signals for a redundant signal transmission.

Modular concept shows advantages

The latest generation throttle body design concept is to utilize components for the entire actuator product family. The throttle bodies actuating elements are thus not only found in classical fresh air management applications for diesel and gasoline engines, but also in EGR valves. The resulting advantages in terms of robustness of the components and volume effects support the success of the current generation of actuators.

The Electric Actuation Modules (EAM) for exhaust control valves which Pierburg produces in volumes of two to three million items annually also take advantage of the modular concept with positive effects on costs. With the increasing use of electric components in vehicles the electric exhaust control valve suits customer needs and makes decisive contribution towards reducing emissions and noise.