DELPHI

POWERTRAIN SYSTEMS

Delphi Diesel Electronic Throttle Control

Description

Delphi Diesel Electronic Throttle Control regulates the intake manifold pressure on diesel engines to help increase exhaust gas recirculation (EGR) rates. These valves can also provide low minimum flow for smooth diesel engine shutdown.

Delphi offers a variety of Diesel Electronic Throttle Controls to meet environmental and customer requirements including:

- Aluminum or composite body valves to meet very stringent vibration and temperature requirements
  - Includes wrap-around motor design (DC brush), composite gears, and needle bearings
- Composite body valves to meet requirements for lower mass
- Valves with torque motor (direct drive) actuation for constrained packaging requirements

Delphi Diesel Aluminum Electronic Control Throttle with non-contact sensor and DC motor

Benefits

- Accurate manifold flow control designed to achieve high EGR flow rates with minimum system effect
- Achieves low minimum flow rates for smooth engine shutdown, and minimizes noise, vibration and harshness (NVH)
- Accurate and repeatable flow control provides suitability for NO_x adsorber function
- DC motor and gear train provide high torque
- Non-contact throttle position sensor technology provides improved reliability and durability
- Composite body offers lower mass
- Torque motor enables direct drive, smaller overall package size, and fast response

Delphi Corporation
World Headquarters
5725 Delphi Drive
Troy, Michigan 48098-2815 USA

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Typical Applications

Delphi Diesel Electronic Throttle Controls are well-suited for all light duty, medium duty, and heavy duty diesel engine applications to contribute to reduced NO_x emissions.

Performance Advantages

The principal feature of Delphi Diesel Electronic Throttle Control is to provide accurate regulation of the manifold pressure. They also accurately repeat—and hold—any given position or flow so they are especially effective for the NO_x adsorber-rich regeneration function. Delphi Diesel Manifold Vacuum Regulator Valves provide smoother engine shutdown compared to conventional technologies.

The Delphi Advantage

Delphi is actively involved in the development of advanced diesel technologies to help manufacturers meet stringent emissions standards while enhancing fuel economy. Delphi designs and supplies complete diesel engine management systems for light duty, medium duty and heavy duty applications including injection systems and electronics. Delphi has six diesel design and engineering centers in Europe, Asia, North America, and South America and eleven diesel manufacturing facilities in eight countries enabling exceptional on-time delivery.

Delphi Diesel Composite Electronic Throttle Control with non-contact sensor and DC motor

Delphi Diesel Composite Electronic Throttle Control with non-contact sensor and torque motor

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