

Piezoelectric Diesel Injectors for Advanced High-Pressure Common Rail Commercial Engines

Specifications :

Price	Contact us
Place of Origin	China
Min.Order Quantity	10
Payment Terms	OEM?ODM?OBM
Supply Ability	1000
Delivery Detail	3-7

Detail Introduction :

Modern high-pressure common rail systems require rapid injector response to meet modern emissions standards and fuel economy targets. Replacing traditional solenoids with piezoelectric actuator stacks, these injectors open and close in milliseconds. This ultra-fast switching speed allows the engine control unit to execute complex pilot, main, and post-injection strategies within a single combustion stroke. The result is complete diesel fuel vaporization, reduced combustion noise (diesel knock), and maximum power output.

Key Product Highlights:

Microsecond Switch Response: Piezo crystal actuators react up to five times faster than standard solenoids, allowing flexible multi-injection timing.

Ultra-Fine Pressure Atomization: Converts dense diesel fuel into microscopic vapor droplets under extreme common rail pressures.

Lower Emissions & Quieter Operation: Smoother pressure rise inside cylinders significantly reduces engine noise and toxic tailpipe emissions.

Optimal Fuel Economy: Pinpoint fuel metering ensures every milligram of fuel is completely burned for maximum kinetic energy.

Target Applications:

Advanced Commercial Engines: Next-generation commercial trucks, high-efficiency transport buses, and eco-friendly diesel fleet vehicles.

Why Choose Us:

We utilize clean-room manufacturing and precision laser-drilling technology for piezo crystal stack assembly. Every piezo injector is fully calibrated for capacitance, needle lift speed, and multi-pulse flow rates, ensuring flawless integration with modern engine management computers.