Pressure Sensors in Common Rail System

Modern diesel engines have significantly improved their performance by means of electronic injection. And common rail systems are used to provide the diesel engine with fuel, generate the high pressure needed for fuel injection and distribute the fuel to the individual cylinders, inject precisely correct amount of fuel at exactly the right moment in time, accumulate injection system.

The advantages of common rail diesel system are many, including increasing engine power, improving fuel economy, reducing combustion noise, and improving vehicle drive-ability, creating clean exhaust emission.

The pressure sensor measures the pressure in the rail and inputs the information to the common rail ECU, which controls and monitors the complete injection process.



SensPro Electronics' sensor is used in a common rail diesel injection system. The sensor's readings are used to control a voice coil actuator that controls the fuel delivery.

The pressure sensor operates on 5 VDC and provides a 0.5 to 4.5 VDC linear amplified analog output proportional to pressure. The

cost-effective pressure sensor is EMI/EMC protected, has low power consumption, and is capable of operation in high vibration environments. Fully temperature compensated across the entire measurement range, the sensor has an operational temperature of -20°C to 105°C.

The pressure ranges are available from 0 to 700 Bar, 0 to 1800 Bar and above. The sensor can be customized to accommodate a wide array of pressure ports and electrical connector options dependent upon each OEM application-specific requirement.

