



## Article Side

Properly Monitoring Industrial Engines and Equipment with Sensors by [CMR Group](#)

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For diesel and gas engines used in industrial applications, there are various types of sensors that help the engine function properly. Each type of sensor performs a unique and valuable task. Having the correct type of sensor can be a cost effective solution for even the most challenging application. To provide the proper amount of fuel for every operating condition, it is important to have high-functioning, reliable sensors.

### Temperature Sensors

Temperature sensors do just what the name says; they measure the temperature of the engine. When that information is obtained, the temperature sensor will send the information to the computer. Once there, the information will then be sent out to the other various sensors and drives of the engine. A temperature sensor helps the computer determine if the fuel needs to be made richer or leaner. It also helps the computer make necessary adjustments for speed while the engine is in operation.

### Pressure Sensors

Pressure sensors gauge how much power is being produced. These sensors monitor the pressure of the air intake in the manifold. The manifold is the part of the engine in which the exhaust gases from multiple cylinders are collected. A good indication of how much power the engine is producing is the amount of air being drawn into the manifold. The more air that is drawn into the engine, the lower the manifold pressure.

### Speed Sensors

Speed sensors monitor the speed of the engine and send the information to the speedometer. The speed sensor is typically mounted on the output shaft of the transmission. From there, the sensor sends electrical pulses to the computer. The pulses are generated through a magnet that spins a sensor coil. The frequency of the pulses directly relates to the speed of the vehicle.

### Level Sensors

The main field of application for a level sensor is to measure the level of motor oil. This ensures there is minimum filling level when the engine is not in motion, as well as a dynamic range when the engine is running. The engine cannot work without enough oil. An oil level sensor can measure the oil level continuously, both in the dynamic and in the static range; therefore it provides information about the oil level within the whole period of engine operation. Since the level sensor monitors the oil level continuously during the entire engine operation, this means the oil level can be prevented from falling below the minimum level during operation. If the oil level were to fall below the minimum level while in operation it could lead to engine damage.

Using quality, durable sensors can reduce the amount of fuel an engine requires. This not only saves money, but also has a positive impact on the environment. Using sensors developed for specialized applications also increase safety and reliability. Using sensors built to the specifications of an engine increases the longevity and ensures better performance.

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