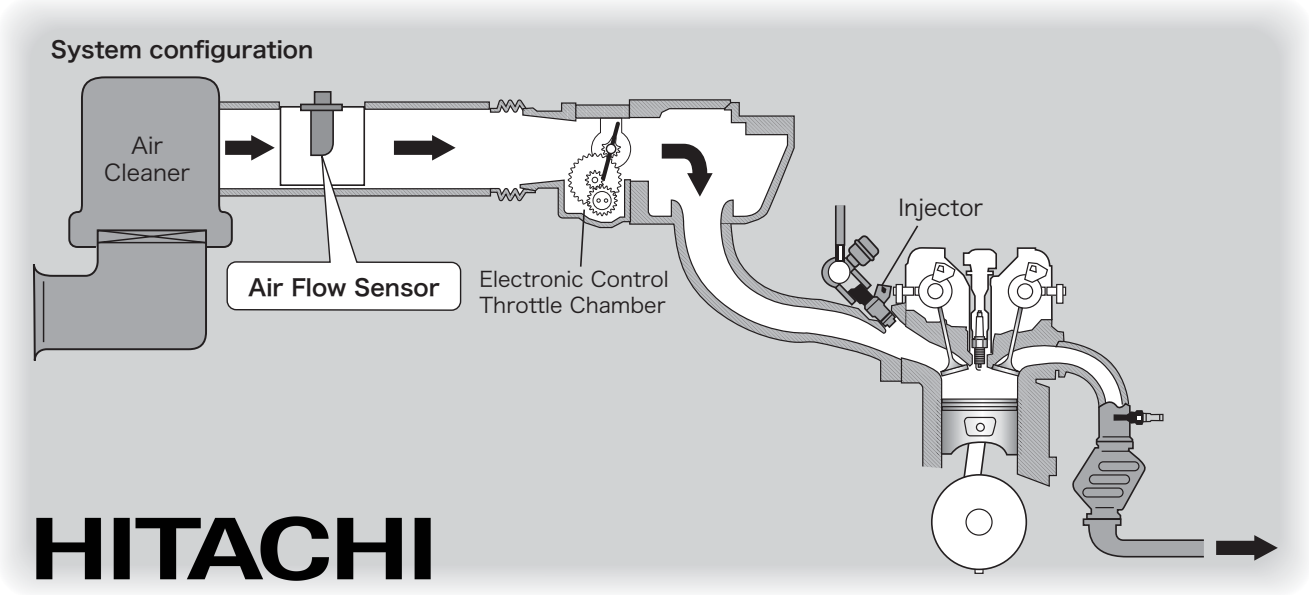
What is an Air Flow Sensor?

An Air Flow Sensor is a sensor installed in the intake system of the electronic control system to measure the volume of passing air flow (volume of the air taken into the engine).

〔Intake air system〕

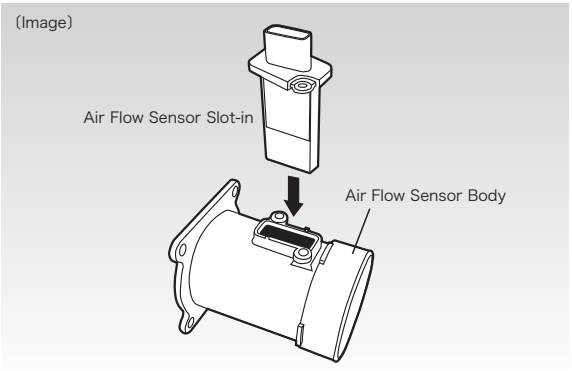
The air taken into the engine is introduced to the Air Flow Sensor through an air cleaner to measure the volume and temperature of the air and the information is transmitted to an ECU (engine control unit). After the Air Flow Sensor the air passes through an electronic control throttle and taken into combustion chambers as air and fuel mixture.



There are two ways to install an Air Flow Sensor.

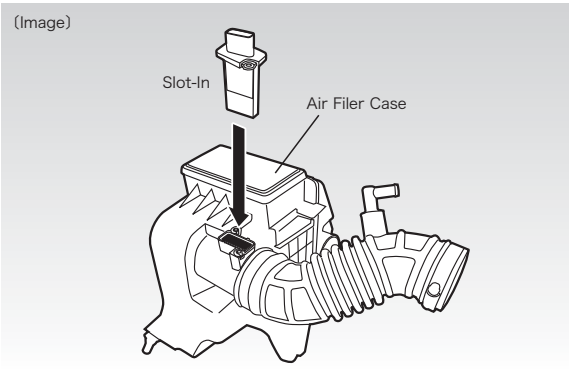
1 The sensor is slotted into an air flow sensor body, which the sensor is integrated with an air flow sensor body.

〔Image〕



2 The sensor is slotted into an air filter case or intake pipe directly.

〔Image〕



Typical troubles and inspection methods

The following troubles appear concerning the Air Flow Sensor failure:

- The engine is going to stall during deceleration to a stop,
- The idle speed decreases,
- The idle speed drops once in a while,
- The engine is going to stall during warm-up or restart.

An inspection method is to check if the air flow sensor output voltage changes according to the engine speed within the defined range using the “current data display (data monitor)” of a fault diagnosis device.

Since the inspection method depends on the maker of the vehicle, check the maintenance manual of the vehicle.