

TECHNICAL NEWSLETTER

Fuel Level Sensor



Worldwide Exporter
of Automotive Technology

CONCEPT:

The fuel level sensor measures the amount of fuel existing in the tank and informs the Electronic Control Unit (ECU), which, on its turn, controls the position of the fuel gauge indicator on the vehicle's dashboard.



PRINCIPLE:

The principle of the fuel level sensor is the variation of electrical resistance according to the fuel level in the tank. This variation controls the current that moves the gauge indicator on the panel.

In Flex-fuel vehicles, the fuel level sensor has a very important additional function. During fueling, the ECU receives the "notice" from the level sensor and, together with information obtained through the other sensors part of in the vehicle (lambda sensor, knock sensor, temperature sensor, etc.), it identifies the fuel in the tank. After that, the ECU can adjust the ideal air/fuel ratio.

LOCATION:

The sensor is located next to the fuel module. It is basically composed of a float fixed to an articulate rod that moves the sliding contact.

HOW DO YOU TEST THE FUEL LEVEL SENSOR OF A STRADA 1.4 8V (DS 2307)?

- 1-** Remove the fuel module from the tank and replace the damaged level sensor for a DS one. Use a bench to perform the test;



- 4-** Locate the pins related to the level sensor on the flange (lid);
5- Insert the test leads into the identified pins;



- 2-** Leave the module in the 90° position (standing up);



- 6-** Move the sensor rod, simulating a full tank. The value obtained shall be between 59 and 67 Ω ;



- 3-** Adjust the multimeter to the resistance scale (Ohm);



- 7-** Now, simulate an empty tank with the sensor rod. The value obtained shall be between 359 and 367 Ω ;
8- Also check if there is no loss of reading between the full/empty positions.



WARNING:

- Do not modify the shape of the articulate rod;
- Do not perforate the float;
- Fit the sensor carefully as the fuel module locks may break.