

SIKECO AUTO PARTS CO., LTD.

AIR FLOW METERS DESCRIPTION:

Air flow measure, that is, the weight of the air entering the engine through the time (kg/h) is used by the engine management computer in order to evaluate and supply the proper amount of fuel to the engine, in its different operating conditions. Two basic methods and two different kinds of devices are being used to this purpose.

In older flap air flow meters, used in gasoline injection engines, the air flow measurement is obtained by measuring the angular position of a rotating flap device. The flap position depends on the action both of the entering air flow, from one side, and of a counter spring from the other. Such position is read by the engine computer by means of an electrically supplied circuit including a potentiometer, which is being directly moved by the flap itself, through a mechanical linkage.

In hotwire air flow meters, also called mass air flow sensors, used both in gasoline and in diesel engines, a sensing resistor, fitted in the middle of a Venturi tube, is kept constantly heated at a temperature which is some degrees over that of the incoming air. By this device, the air flow is being measured by measuring the current flow needed to keep the sensing resistor at a given constant temperature level. The most recent types of these devices have hot metallic film resistors with hybrid circuits in a ceramic substrate and result far less sensitive to contamination with respect to previous discrete-component types.

FAILURE SYMPTOMS:

A failed MAF sensor will trigger the vehicle warning light. It may cause hesitation, stalling and poor performance.

Inspection/Replacement

The MAF should be visually inspected at every tune-up for cracks. This sensor should be replaced when a trouble code indicates a problem.

SIKECO BRAND FEATURES:

1. Direct mass flow measurement
2. Exceptional low speed sensitivity
3. High turn-down ration
4. Large temperature and pressure range
5. Solid-state, no moving parts, shock resistant
6. very good repeat ability
7. Fast response to velocity and ambient Temperature changes

SPECIFICATION:

Voltage output	1-5V
Accuracy	<3%
Response time	<15ms
Operating temperature range	-40°C to 150°C
Dimension	Compatible with Standard

