FOR TECHNICAL PERSONNEL ONLY!

"Air mass too high or too low"

Frequently this fault is not due to the air mass sensor

Vehicle:	Product:	Air mass sensor
All vehicles provided with exhaust gas recirculation and PIERBURG air mass sensors	**PIERBURG No.**	7.18221.51.0/.58.0; 7.22184.04.0 ... .34.0/.50.0; 7.22684.07.0 ... .10.0; 7.22701.04.0/.05.0; 7.28342.06.0/.07.0;

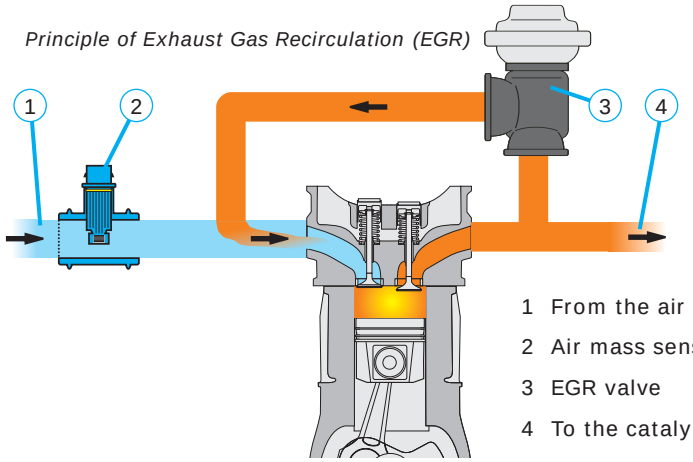
Possible complaints:

- "P0102 air mass too low"
- "P0103 air mass too high"

Whenever such error messages occur, a malfunction in the air mass sensor is often suspected.

However, the malfunction can also be in the EGR system, for instance if the EGR valve is stuck either when open or closed.

Principle of Exhaust Gas Recirculation (EGR)



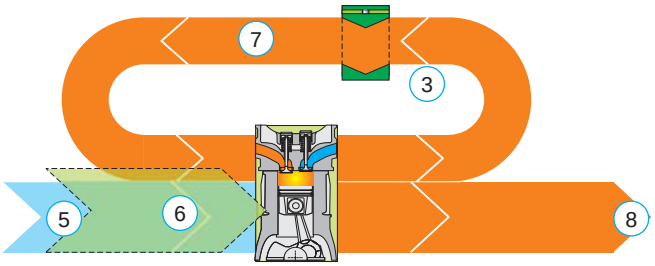
1 From the air filter
2 Air mass sensor
3 EGR valve
4 To the catalytic converter

Potential fault: The EGR valve (3) is permanently open

The amount of returned exhaust gas (7) is much higher than required.

As a result, less fresh air (5) arrives at the cylinders.

The air mass sensor measures less air than calculated by the engine control unit (6).



Potential fault: The EGR valve (3) remains closed

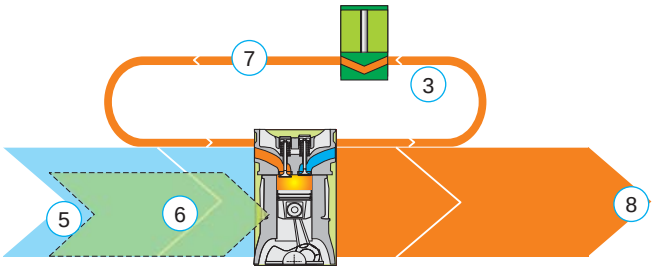
No or only very little exhaust gas is returned (7).

As a result, more fresh air (5) arrives at the cylinders.

The air mass sensor measures more air than calculated by the engine control unit (6).

Remedy:

Check EGR valve and replace if necessary.



5 Amount of fresh air
6 Calculated air quantity
7 Returned exhaust gas quantity
8 Residual exhaust gas quantity (to the exhaust)

Subject to changes and variances in the illustrations.
For assignment and replacement, see → the latest applicable catalogues, the TecDoc-CD or systems using TecDoc data.

MOTOR SERVICE

MS Motor Service International GmbH
Hamburger Straße 15
41540 Dormagen
Germany

Phone +49-2133-267 100
Fax +49-2133-267 111

www.ms-motor-service.com