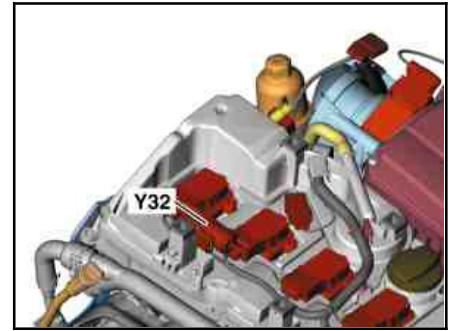


Location

Y32 Air pump switchover valve (secondary air injection)

The air pump switchover valve is located at the rear right of the cylinder head.



P14.30-2039-71

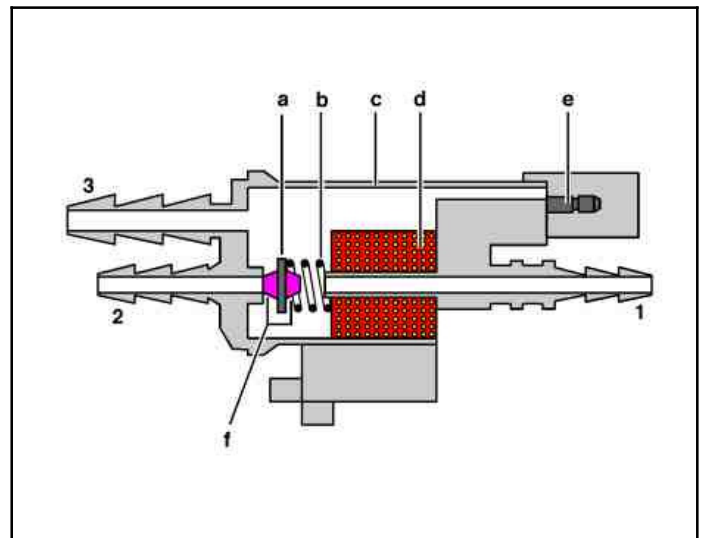
Task

The air pump switchover valve actuates the air injection/exhaust gas recirculation combination valve with vacuum pressure from the intake manifold for the purpose of air injection.

Design

- 1 **Aeration connection**
- 2 **Vacuum pressure supply connection**
- 3 **Connection to combination valve secondary air injection/ exhaust gas recirculation**

- a **Anchor plate**
- b **Return spring**
- c **Housing**
- d **Solenoid (coil)**
- e **Electrical connection**
- f **Rubber seal**



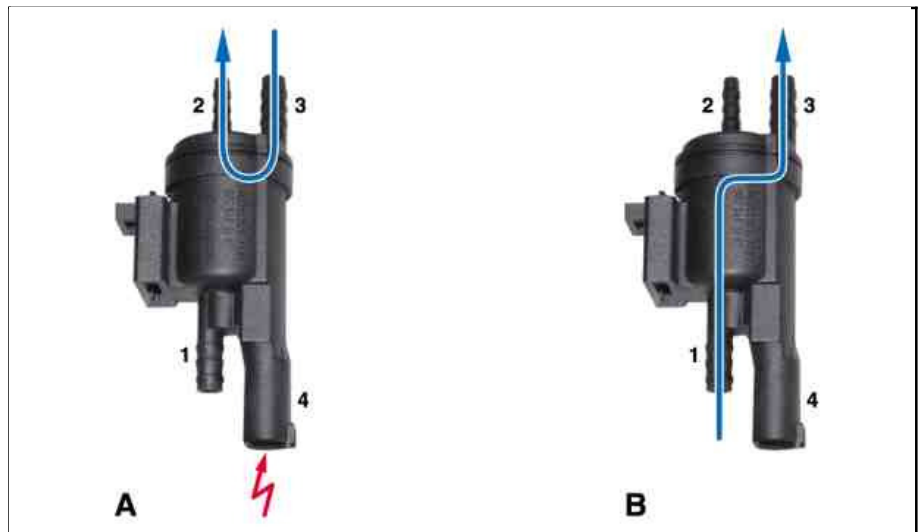
P07.10-0308-81

Function

- 1 **Ventilation connection (atmospheric)**
- 2 **Vacuum supply connection (from intake manifold)**
- 3 **Connection to combination valve secondary air injection/ exhaust gas recirculation**
- 4 **Electrical connection**

A Air pump switchover valve energized (air injection/ exhaust gas recirculation combination valve discharged with vacuum pressure)

B Air pump switchover valve deenergized (air injection/ exhaust gas recirculation combination valve ventilated)



P14.30-2114-75

N3/10The changeover valve on the air pump is actuated directly with a ground signal by the ME control unit when air injection is enabled. Here the anchor plate (a) is pulled by the electromagnet (d) and the sealing rubber (f) shuts off the connection 1.

The connection between connection 2 and 3 is released and the vacuum pressure from the intake manifold builds up in the air injection/exhaust gas recirculation combination valve. In deenergized status, the connection between connection 1 and 3 is recreated, whereby the air injection/ exhaust gas recirculation combination valve is ventilated once more (via connection 3).