



## *Level control switch for engine oil*

### General

Oil level control switches are fitted in the oil sump. They records the minimum oil level and send a signal to the ECU when there is an engine oil shortage. The ECU activate the warning system, a warning light or an acoustic signal.

### Function

A magnet fitted in side a float changes the switch position of a reed contact when the oil level is low. The reed contact sends a signal to the ECU which activates the warning system. When the oil level is corrected the position of the float is changed, the magnet opens the reed contact and the warning system is deactivated.



### Effects of failure

A faulty oil level control switch can cause the following:

- illumination of the warning light when the oil level is correct
- warning light is not illuminated when oil level is low
- stores a fault/trouble code

Causes of failure:

- faulty float
- internal circuit short open
- wire short circuit/open circuit
- mechanical damage



## Diagnostics

For fault recognition consider the following system tests:

- read out trouble/fault codes
  - check electrical lead for correct fitting and contact
  - check oil level control switch for damage
  - check the float function
1. Check electrical lead between component plug and removed ECU plug for open circuit and continuity. Measurement with an ohmmeter between the plugs (wiring diagram needed for pin definition) measured value: < 1 ohm, measurement between component plug and vehicle ground, measured value: >30 Mohm
  2. Check the switch contacts:
    - Float at the upper switch contact (static minimum=engine off) measurement with an ohmmeter between pin 2 and 3, measured value: 0 ohm
    - Float at the lower switch contact (dynamic minimum=engine running) measurement with an ohmmeter between pin 1 and 2, measured value: 0ohm

### Plug definition:

