

Oil temperature sensor



Function

The oil temperature sensor incorporates a NTC thermistor, the resistance decreases as the temperature of the oil increases. As the temperature changes, the thermistor resistance changes, enabling the control unit to calculate the oil temperature from the level of voltage that is registered on the sensors' signal wire.

Quickcheck

Inspect the connector(s) and if necessary clean or fix them to make sure the connection is good. Check resistance: Turn off ignition. Remove connector from sensor. Measure resistance between pins of the sensor. Compare with specified resistance. Check supply voltage: Turn off ignition. Remove connector from sensor. Turn ignition on and measure successively voltage between connector terminal and the negative terminal of the battery. One should be 5 V. If not check wiring then check ECU. Check connection to ECU: Turn off ignition. Remove connectors from sensor and ECU. Measure the resistance between supply voltage connector terminal and the corresponding terminal in the ECU connector. It should be < 1 ohm. If not check wiring. Check ground: Check in schematic if ground connection is connected to a direct ground or to the ECU. When it is connected directly to ground: Turn off ignition. Remove connector from sensor and measure resistance between ground connector terminal and the negative terminal of the battery. It should be < 1 ohm. If not check wiring. When it is connected to the ECU: Turn off ignition. Remove connector from sensor and ECU. Measure resistance between ground connector terminal and the corresponding terminal in the ECU connector. It should be < 1 ohm. If not check wiring then check ECU.