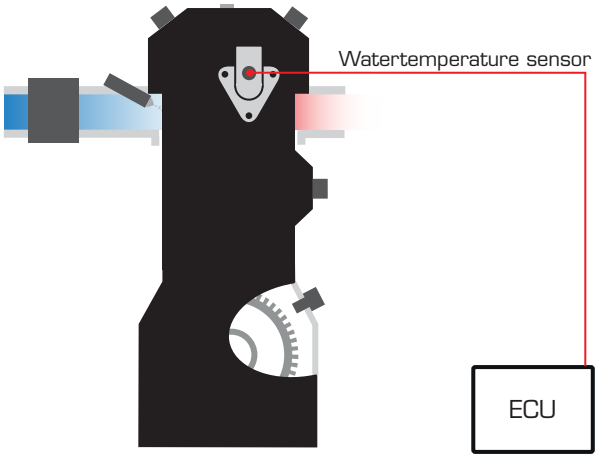
Technical info

Water temperature sensor

Measures the cooling water temperature which is used for the vehicle's engine management (ECU). The information is used to control the mixing ratio of air and fuel, to control the ignition timing, and for controlling the electric radiator fan (s).

System design



Function

Water temperature sensor is typically either placed on the thermostat housing or the engine block. The temperature measurement is performed using an NTC (Negative Temperature Coefficient) or PTC (Positive Temperature Coefficient) thermistor - a resistor in which resistance changes with temperature. The NTC type is the most common. In both types the thermistor is protected behind the sensor's metal chasing as it is not in direct contact with the coolant.

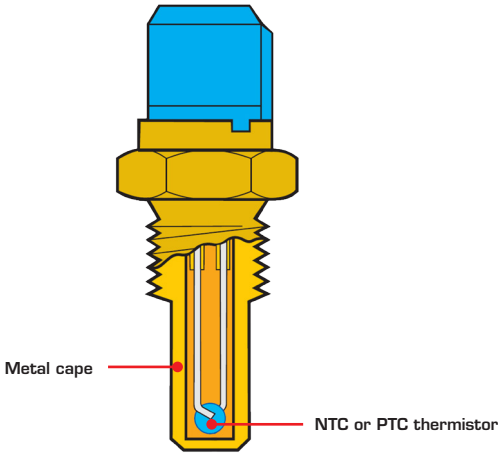
NTC: The resistance is reduced when the temperature increases and increases as the temperature decreases.

PTC: The resistance increases when the temperature rises and rises when the temperature drops.

Types

There are two types of sensors for measuring coolant temperatures:

- NTC - Negative Temperature Coefficient
- PTC - Positive Temperature Coefficient



Quality

Quality management according to TS 16 949.
100% functional test of every sensor

Mounting

REMEMBER to vent the cooling system after replacement.

Possible errors

- The sensor sends the wrong values, but within the measuring range.
- The sensor sends entirely the wrong values.
- The sensor sends the wrong values at specific temperatures - intermittent fault.

Numbering system

8626 YY ZZZ: 8626=product group, YY=car make, ZZZ=continious numbering