

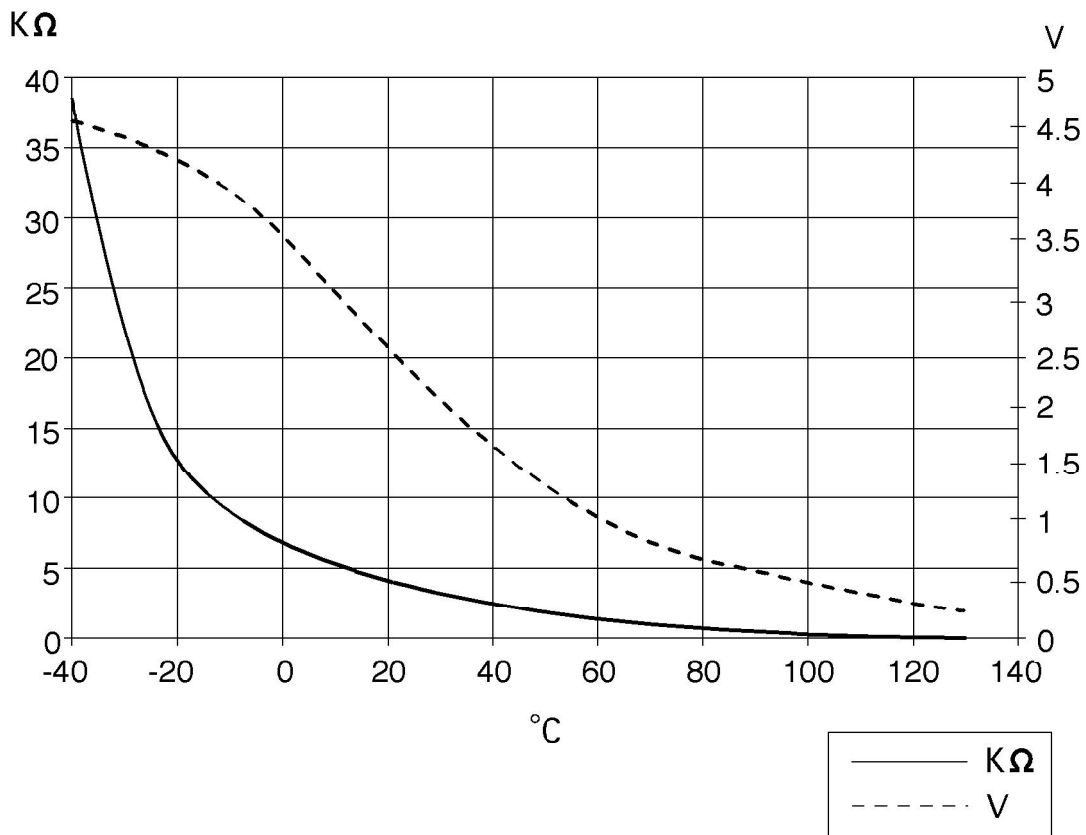
ENGINE MANAGEMENT SYSTEM - V8

Intake air temperature (IAT) sensor

The intake air temperature (IAT) sensor utilises a thermistor with a negative temperature coefficient (NTC); as temperature rises, the thermistor resistance decreases. The change in resistance causes a change in input voltage at the ECM. The ECM converts the voltage value it receives to provide an indication of the temperature of the inlet air.

Normal operating parameters of the IAT sensor are as follows:

IAT output



M124706

Should the IAT sensor fail, the ECM defaults to an assumed air temperature of 45 °C (113 °F).

The IAT sensor can fail the following ways or supply incorrect signal:

- Sensor open circuit.
- Short circuit to vehicle battery supply.
- Short circuit to vehicle earth.
- Increased sensor resistance.
- Damaged sensor element.

In the event of an IAT sensor signal failure any of the following symptoms may be observed:

- Adaptive fuelling disabled.