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### > CO<sub>2</sub> Sensor by Bosch can save up to 20% fuel

**The global manufacturer of automotive technology estimates that a R744 (CO<sub>2</sub>) cooling system equipped with its new Climate Control Sensor can not only save significant amounts of fuel, but also reduce direct greenhouse gas emissions.**

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Trials under southern European summer conditions have shown that, by adding the new Climate Control Sensor (CCS) to the passenger compartment, the enhanced electronic control of the air conditioning system will not only lead to a balanced management of air re-circulation but also to a substantially reduced energy demand of the system. Bosch has carried out a series of dynamometer tests with the prototype of a mid-size vehicle equipped with a R744 (CO<sub>2</sub>) cooling system. Results show that, depending on climate zone and vehicle speed, the optimized climate control can lead to fuel savings of nearly 20%.




The new sensor uses infrared-based spectroscopy to measure CO<sub>2</sub> concentration in the air. Located inside the passenger compartment, it supplies fresh air to the passengers and detects minute concentrations of less than 0.02% by volume. The component opens up new control strategies for the development of next-generation air conditioning systems using climate friendly refrigerants that comply with future European Union requirements.



### Background

Bosch is a leading global manufacturer of automotive and industrial technology. The Bosch Group comprises 300 subsidiaries in 140 countries.

### More information:

-  [Press Release "Bosch carbon-dioxide sensor saves fuel" - March 2007 \(49 KB\)](#)
-  ["Frische Luft im Auto – der Climate Control Sensor von Bosch" GERMAN \(146 KB\)](#)
-  ["Ein spektroskopischer CO<sub>2</sub> Sensor für automobile Anwendungen" GERMAN \(425 KB\)](#)

> [Find out more about the Climate Control Sensor in our Components database](#)