

Application Spotlight

Automotive CO₂ In-Cabin Sensing for Energy Reduction

Overview

The increasing use of batteries in vehicles has heightened the need to preserve energy to improve range and fuel consumption.

As a major consumer of energy, a vehicle's air conditioning (A/C) system can contribute to range reduction, so if the vehicle can automatically reduce the use of its A/C system, range will be extended.

Like any ventilation system, the A/C system uses outside air to maintain internal air quality, and it's the introduction of outside air that draws a largest amount of energy. So, by monitoring the requirement for outside air, we can reduce the amount of air brought into the vehicle; hence, reducing energy consumption. This is easily achieved with a Carbon Dioxide (CO₂) Sensor.



Carbon Dioxide (CO₂) as a Tracer Gas

Carbon Dioxide (CO₂) is an excellent tracer gas for human occupation. This is well-known in the building industry where CO₂ monitoring has been a widely-used technique for the last 30 years. Telaire has been at the forefront of this from the start, offering a wide range of CO₂ sensors, transmitters and handheld meters, specifically for use in HVAC and building automation applications.

Based on its expertise in Carbon Dioxide (CO₂) sensing technologies, in 2018, Telaire introduced its Automotive CO₂ Sensor, which is fully auto-qualified and meeting all the needs of Demand Controlled Ventilation (DCV). This sensor also offers options to monitor parked vehicles and alarm if human or pet occupation is detected.

Features

- Linbus communication
- VDE standard and generic outputs
- Lifetime calibration
- Low power consumption

Applications

- Demand-Based Ventilation
- Occupation in Park
- High Limit Alarm



Amphenol
Advanced Sensors

www.amphenol-sensors.com

© 2019 Amphenol Corporation. All Rights Reserved. Specifications are subject to change without notice. Other company names and product names used in this document are the registered trademarks or trademarks of their respective owners.

AAS-930-234A - 03/2018