TELAIRE®
AN AMPHENOL COMPANY

Telaire T6743 CO2 Sensor for Automotive Applications

Application Overview

The Telaire T6743 CO2 sensor is designed for automotive applications, ensuring both air quality and comfort control as well as R744 (CO2) refrigerant leak detection. With increasing emphasis on vehicle cabin air quality and environmental sustainability, the T6743 sensor provides an advanced solution for monitoring and maintaining optimal conditions inside the vehicle.

Air Quality & Comfort Control

Maintaining proper CO2 levels in a vehicle cabin is essential for passenger comfort and well-being. High CO2 concentrations can lead to drowsiness and discomfort, reducing driver alertness and overall passenger experience. The T6743 sensor enables real-time CO2 monitoring, allowing HVAC systems to optimize fresh air intake and enhance cabin air quality efficiently.

R744 Leak Detection

As the automotive industry shifts towards more environmentally friendly refrigerants, R744 (CO2) has gained popularity due to its low global warming potential (GWP) and non-flammable properties. However, effective leak detection is crucial for maintaining system efficiency and ensuring safety. The T6743 sensor offers reliable detection of R744 leaks, helping to prevent refrigerant loss and ensuring system integrity.

Key Specifications

Measurement Range:
0 – 65,000 ppm CO2

Operating Temperature:
- 40°C to 90°C

Compact Design:
Simple integration with LIN Bus 2.0 (Customization Available)

Accuracy:
±75 ppm or ±5% of reading

Technology:
Non-Dispersive Infrared (NDIR) with patented ABC Logic™ self-calibration

Low Power Consumption:
Suitable for energy-efficient vehicle applications

With its robust performance, precision, and reliability, the Telaire T6743 CO2 sensor is the ideal solution for automotive manufacturers seeking to enhance cabin air quality and ensure the safety of R744-based HVAC systems

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