

# **Passenger Car AC Valves Market – Global Industry Size, Share, Trends Opportunity, and Forecast, Segmented By Vehicle Type (SUV, Sedan, Hatchback, MUV), By Sales Channel (OEM and Aftermarket), By Fuel Type (Gasoline and Diesel) By Region & Competition, 2021-2031F**

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## **Abstracts**

The Global Passenger Car AC Valves Market will grow from USD 1.65 Billion in 2025 to USD 2.47 Billion by 2031 at a 6.96% CAGR. Passenger car AC valves are specialized components within vehicle thermal management systems designed to regulate refrigerant flow and ensure optimal cabin temperature stability. The market is fundamentally driven by the escalating volume of global vehicle production and a rising consumer preference for superior cabin comfort features in modern automobiles.

## **Key Market Drivers**

The accelerating adoption of electric vehicles requires advanced thermal management systems, fundamentally altering the technical landscape for AC valves. Unlike internal combustion engines, electric powertrains demand integrated cooling circuits for the battery pack, power electronics, and cabin, often utilizing heat pumps that necessitate multiple electronic expansion valves for precise flow regulation. This architectural complexity increases the number of valves per vehicle, driving market value and technical innovation significantly.

## **Key Market Challenges**

The primary obstacle impeding the expansion of the Global Passenger Car AC Valves

Market is the substantial price differential between advanced electronic expansion valves and their traditional mechanical counterparts. While electronic valves offer precise refrigerant control necessary for modern thermal efficiency, their complex engineering results in significantly higher per-unit manufacturing costs. This financial burden forces automobile manufacturers to exercise caution when selecting components for entry-level and economy platforms, where profit margins are already narrow.

### **Key Market Trends**

The adoption of high-pressure valves compatible with R-744 (CO<sub>2</sub>) refrigerants is emerging as a critical trend driven by stringent environmental regulations targeting per- and polyfluoroalkyl substances (PFAS). Unlike traditional refrigerants, R-744 operates at pressures exceeding 100 bar, necessitating the re-engineering of AC valves with reinforced housings and robust sealing materials. This shift is visible in the strategies of suppliers scaling production of natural refrigerant hardware to future-proof against chemical bans.

### **Key Market Players**

Mahle Group

Knorr-Bremse AG

Hitachi Ltd.

Federal-Mogul Holdings Corp

Eaton Corporation Plc.

Denso Corporation

FUJI OOZX Inc.

FTE automotive GmbH

Delphi Automotive PLC

Continental AG

**Report Scope:**

In this report, the Global Passenger Car AC Valves Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

**Passenger Car AC Valves Market, By Vehicle Type:**

SUV

Sedan

Hatchback

MUV

**Passenger Car AC Valves Market, By Sales Channel:**

OEM and Aftermarket

**Passenger Car AC Valves Market, By Fuel Type:**

Gasoline and Diesel

**Passenger Car AC Valves Market, By Region:**

North America

United States

Canada

Mexico

Europe

France

United Kingdom

Italy

Germany

Spain

Asia Pacific

China

India

Japan

Australia

South Korea

South America

Brazil

Argentina

Colombia

Middle East & Africa

South Africa

Saudi Arabia

UAE

## **Competitive Landscape**

*Passenger Car AC Valves Market – Global Industry Size, Share, Trends Opportunity, and Forecast, Segmented By V...*

Company Profiles: Detailed analysis of the major companies present in the Global Passenger Car AC Valves Market.

**Available Customizations:**

Global Passenger Car AC Valves Market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

**Company Information**

Detailed analysis and profiling of additional market players (up to five).

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