

SECONDARY AIR INJECTION (SAI) VALVES



ELECTRICALLY ACTUATED SAI VALVES

Pierburg's electrically actuated Secondary Air Injection (SAI) valves deliver outstanding response times and maximum efficiency. Unlike conventional solutions, they do not require vacuum or pressure supply systems, eliminating the need for dedicated vacuum pumps, commonly used in modern vehicles. The result is a more efficient, streamlined, and reliable system architecture.

How it works

The SAI valve specifically aids to feed fresh air into the exhaust system from the SAI pump and simultaneously preventing backflow of the exhaust gases, promoting the oxidation of unburned fuel components, helping the catalytic converter to reach its operating temperature faster and improving overall emission performance.

Accelerating catalytic converter efficiency. Reducing emissions. Enabling cleaner mobility.

BENEFITS

- Faster catalytic converter warm-up and activation
- Reduced hydrocarbon (HC) and carbon monoxide (CO) emissions during cold start
- Reliable and consistent airflow performance
- Compact, robust, and maintenance-free design
- Optimized for rapid response in short operating cycles
- Supports compliance with increasingly stringent emission standards

TECHNICAL DATA

Operating voltage	8 – 16 V DC
Pressure drop @ 12V / 25 kg/h	< 26 mbr
Current consumption (20 °C)	2.6 A
Temperature range	-40 °C to 120 °C
Opening time (20 °C @ 13.5 V)	≤ 80
Closing time (20 °C @ 13.5 V)	≤ 100 ms
Size	75 x 65 x 45mm
Weight	< 400 gr

PIERBURG

Pierburg, as a heritage brand, is a system provider for high-quality and innovative solutions and control technologies for the automotive and energy industries, among others.

With its Business Sections, Pierburg stands for outstanding expertise in the following areas: air management, thermal management, e-mobility and hydrogen technology.

CONTACT

Pierburg GmbH

Alfred-Pierburg-Str. 1 · 41460 Neuss
power-systems@rheinmetall.com