

# ELECTROMOTIVE DRIVEN GAS RECIRCULATION VALVE



## GAS RECIRCULATION VALVE

Rheinmetall's external (cooled) exhaust gas recirculation systems are engineered for both Diesel and gasoline engines, providing fast and accurate mass flow control and play a crucial role in reducing emissions, specifically NO<sub>x</sub> in diesel and gasoline engines, as well as CO<sub>2</sub> in gasoline engines. With its fast and reliable control mechanisms, our system ensures emissions are managed efficiently. The standardized modular components are designed to fit a wide range of vehicles from passenger cars to light- and medium-duty, as well as construction vehicles, making integration seamless.

The compact, robust, and powerful electromotive-driven valve at the heart of our system exemplifies durability and precision. Thanks to its poppet design, the valve achieves low leakage, enhancing overall system performance. Moreover, our concept has been proven effective, with options available for an upgrade to a "smart" valve, further enhancing its functionality and adaptability to modern vehicle requirements.

### BENEFITS

- Passenger car, light- and medium duty Diesel and gasoline application – one concept fits all
- Standardized actuator for flexible adaption to customer demand and engine installation space
- Multiple production location and application support (Europe, USA, Asia)

### TECHNICAL DATA

Ambient temperature range	-40 °C ... +150 °C
DC-MOTOR supply voltage	12 V/24 V (opt. EMC protection)
Valve control	PWM, SENT, analog (smart/non-smart)
Poppet diameter	8 – 35mm
Current consumption (typ)	0.3 – 1.5A
Force	> 500N
Flow rate (@ Δp=50 hPa & RT)	120 / 180kg/h
Leakage (@ Δp=500 hPa & RT)	< 0.5kg/h (valve seat)

### RHEINMETALL POWER SYSTEMS DIVISION

Within Rheinmetall the Power Systems Division is a system provider for high-quality and innovative (mobility) solutions, control technologies and digital applications for the automotive and energy industries, among others.

With its Business Units and Business Areas, the Division stands for outstanding expertise in the following areas: air management, thermal management, e-mobility and digitalization, hydrogen technology, metallic plain bearings, composite materials and lightweight construction. The Power Systems Division also represents Rheinmetall's global after-market activities through the Trade Business Unit.

### CONTACT

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