



VALVE SOLUTIONS FOR
HYDROGEN APPLICATIONS



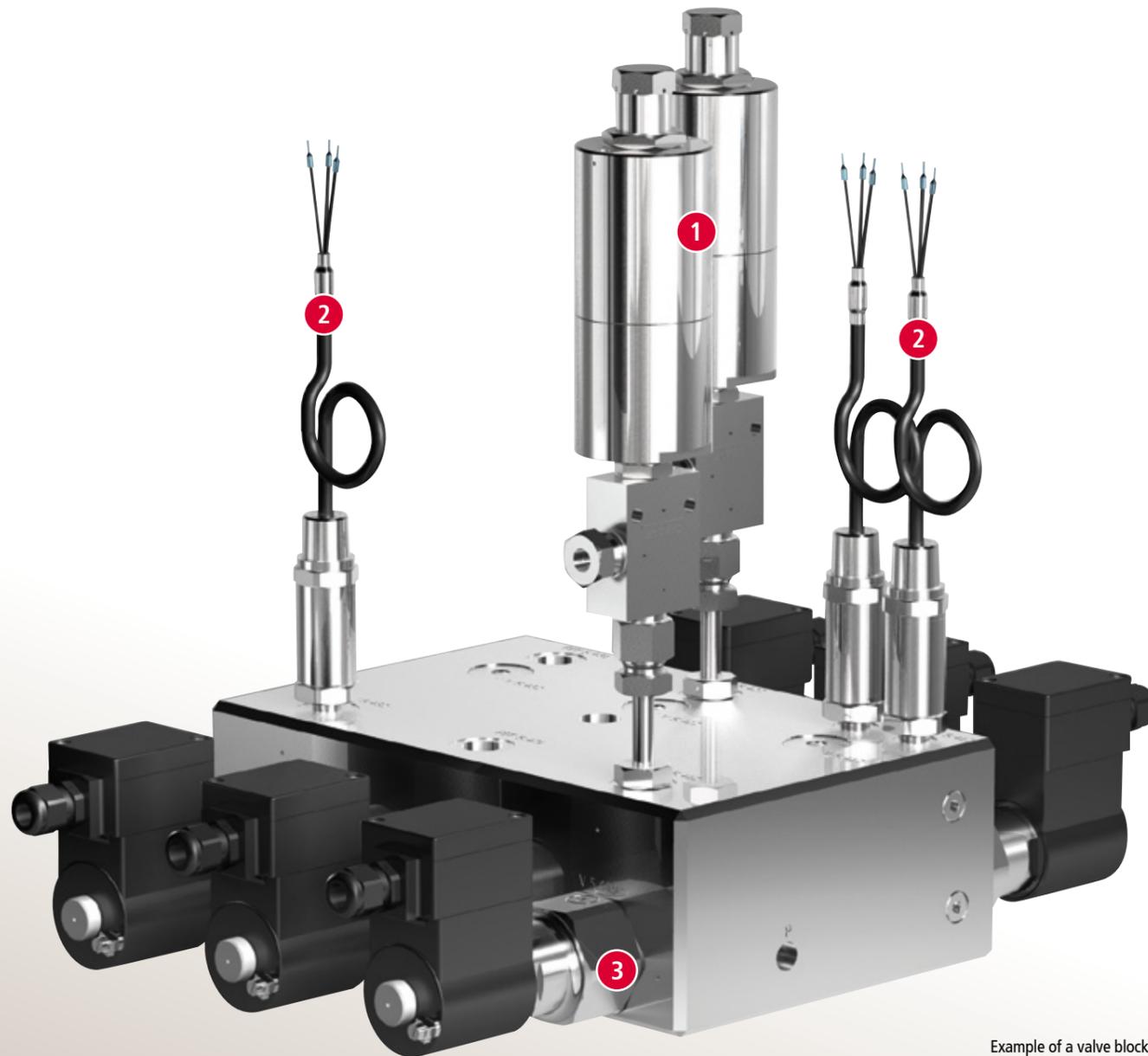
Innovative Valve Technology

Valve solutions for hydrogen applications

GSR offers a specially developed technology for hydrogen applications. The products range from low pressure valves to high pressure components as solenoid valves for the pressure range up to 900 bar. These valve solutions range from single valves to cartridge versions and an exactly adapted customer solution as a block version.

This means that different functions are combined in one block. Due to the internal connection via holes, a lot of possible leakage sources are avoided. The components and connection points are arranged according to the customer's specifications. In addition to the solenoid valves, further components such as safety valves, measured value transmitters, filters, manometers, manual valves etc. can be integrated or flanged. The compact design of this version offers decisive advantages compared to versions with pipework connections.

GSR has many years of experience in the area of customer-specific solutions thanks to the competence in the design of valve block solutions that are tailored specifically to the required conditions.



Example of a valve block

- 1 Safety valves
- 2 Pressure transmitter
- 3 Cartridge solenoid valve with explosion proof coil



Directly controlled solenoid valve to lock hydrogen and reformates in fuel cell applications as well as for use in electrolyzers.



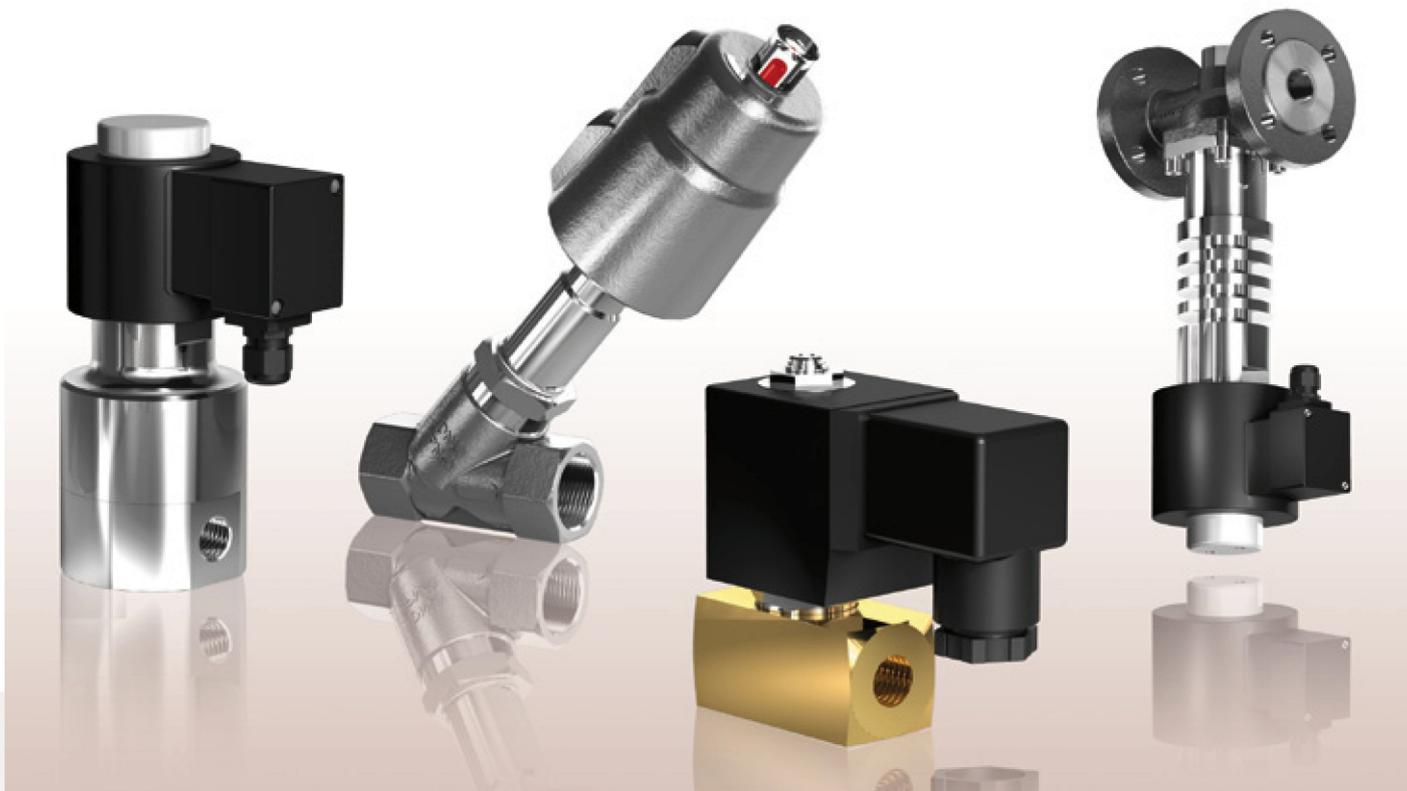
Pilot operated solenoid valve for use in hydrogen applications e.g. for tank systems for forklift trucks.



Pilot operated solenoid valve to shut off high pressure lines using UNF auto-claves. Particularly suitable for the 700 bar hydrogen tank system technology.



Pneumatically operated servo-controlled valve up to 300 bar for the use in the hydrogen.



Solenoid valves

Externally (pressure) controlled valves

Motor valves

Special constructions according to customer's request

Accessories