

Solenoid Valve Body Materials

Solenoid valves are available in a variety of materials and the correct type of valve will depend on its purpose. In order to retain a long service from your solenoid valve, it is important the correct one is chosen for the correct application. For your convenience, [MGA Controls](#) have compiled a list of the most common **solenoid valve body materials**, including their suitable applications.

Plastic Solenoid Valves

Most commonly used for water, aggressive media and corrosive environment applications, plastic [solenoid valves](#) are usually more cost efficient than alternative body materials such as brass and stainless steel. Below is a list of the most common plastic solenoid valves.

Polyphenyl Sulphide or PPS

PPS is a thermoplastic, often used as a **solenoid valve body material** and can perform above 200°C. PPS is resistant to acid, alkalis and abrasion and is used in many applications, including electricals, automotive and more general industries, such as cooking appliances. PPS can also be moulded, extruded or machined to high tolerances.

Polyether Ether Ketone or PEEK

PEEK is more susceptible to high concentrations of sulphuric and nitric acid, meaning it has excellent mechanical and chemical properties, making it a superior **solenoid valve body material**. While PEEK is generally more expensive than other forms of valve materials, its strength means it can perform well in a variety of demanding applications.

Stainless Steel Solenoid Valves

Stainless Steel [Solenoid Valves](#) are often used for general and slightly aggressive media applications or corrosive and offshore environments. Below are some of the most common types of **stainless steel solenoid valve** body materials.

Stainless steel coaxial solenoid valve

Direct Acting 304 and 316 Stainless Steel Coaxial solenoid valves offer the highest flow across the range of solenoid valves, size for size due to their design. They are an ideal solution for high flow, high pressure or temperature, vacuum, aggressive or contaminated media and offer the fastest ON/OFF and bi-directional media control.

Stainless steel solenoid valve pilot

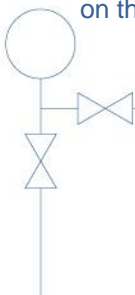
Standard Servo/pressure assisted stainless steel **solenoid valve body materials** are the preferred choice for most food, oil and gas industries looking for high flow, medium to high pressure. However, they do require a minimum differential pressure to operate, usually 0.5 to 2 bar. These are typically less expensive than assisted lift or direct acting stainless steel solenoid valves of similar port size.

Brass Solenoid Valves

Typically, **brass solenoid valves** are constructed with a brass body and a mixture of various internal stainless steel parts. Brass solenoid valves are useful for general purpose, controlling air, water, atmospheric gases and non-aggressive or corrosive applications.

2/2 Way Normally Closed Solenoid Valve

This direct acting solenoid valve is the most popular type of compact 2/2-way solenoid valve and they are commonly found in small water, air, oil and gas systems. Their pressure ranges vary depending on their specification, meaning they can be suitable for low, medium and high pressure applications.



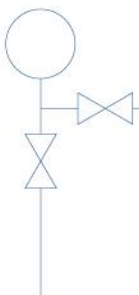
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2/2 Way Normally Closed Servo Assisted Brass Solenoid Valve

This is a common type of brass solenoid valve, typically used for general purpose. It relies on the pressure differential between inlet and outlet ports to operate and typically works best for medium to high pressure systems. Servo assisted can also be described as pressure assisted solenoid valves which reduce the overall cost and power consumption.

MGA Controls Ltd works in partnership with leading solenoid valve manufacturers. With 30 years' experience of working with high quality brands, you can be confident that we can offer you the best and reliable prices on the market. To obtain an immediate quote call the [MGA Controls](mailto:sales@mgacontrols.co.uk) technical team on **01704 898980** or email sales@mgacontrols.co.uk.



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