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Miniaturized Double Latching Solenoid Valve

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DESCRIPTION

This technology is a double-latching valve for gas sampling system of gas chromatographic mass spectrometers. A tip having a bulbous surface is fixed to a spacer having a rounded surface that bears against a pintle. A hollow, generally cylindrical collar fixed to the pintle encloses the spacer and the tip. A portion of the tip extends through an opening in the collar. The size of the collar's interior allows the tip to float and move inside in five degrees of freedom.

FEATURES AND BENEFITS

- Due to the slight bulbous shape of the tip, the tip will self seat and seal the orifice. This allows for some valve-to-valve seat misalignment while still sealing the valve properly, greatly reducing the manufacturing and assembly time and cost.
- The valve has fewer parts and lower tolerance requirements, is less complex and more reliable, has less mass, and is less expensive than known valves.
- It uses a permanent magnet to latch the valve in either open or closed position.
- No electric power is needed to maintain the valve in either position.

APPLICATIONS

- Chemical Industry
- Pharmaceuticals
- Sensors
- Pipeline Monitoring
- Gas Turbine Protection

FOR MORE INFORMATION

If you are interested in more information or want to pursue transfer of this technology, GSC-15039-1, please contact:

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