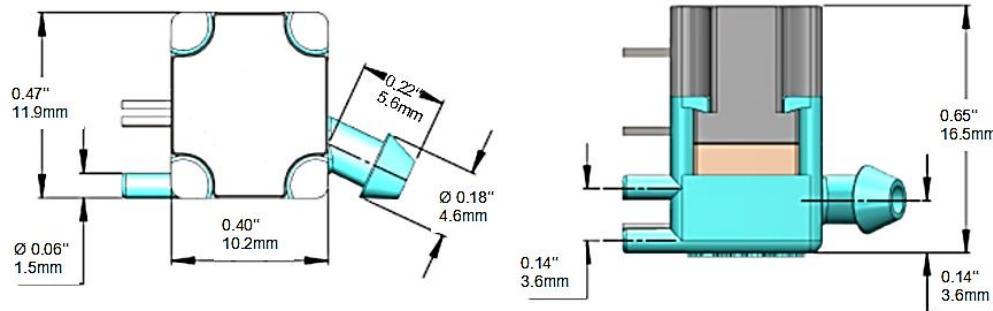


CUSTOM SOLENOIDS & ACTUATORS

Kendrion Mishawaka

Bi-Stable Isolation Valve

The Miniature Bi-Stable Isolation Valve (BIV) was designed with size and battery life in mind. Powered metal was used to reduce the footprint of the valve while allowing for integrated mounting features. A diaphragm was used to isolate the fluid from contact with metal. A permanent magnet is used to latch the valve in the open or closed position to reduce the draw on the battery while dispensing. Pins were also integrated into the design to detect when fluid was no longer present and signal the end user when it was time to re-fill the supply fluid. All of this in a package roughly the size of a thumb tack.



Technical Specification

Solenoid Valve Type	Miniature Bi-Stable Isolation Valve
Media	Acidic Cleaning Solution
Differential Pressure	>0.022psi (150 Pa)
Orifice	0.032" (0.8 mm)
Flow	2ccm
Voltage	3V DC
Wetted Materials	Acetal, EPDM
Package Size	0.400" x 0.472" x 0.650" (10.2 mm x 12.0 mm x 16.5 mm)
Power Consumption	0.75 W
Applications / Comments	Mass consumer market, bathroom accessories Integrated fluid detection