# **7 MM** VALVES

## 2-WAY & 3-WAY SUBMINIATURE VALVES


These direct actuating valves offer an extremely fast response time for accurate dosing of minute volumes with the same long life you expect from the original Clippard EV line of electronic valves, in a 7 mm cartridge package. Due to very low moving weights, they are extremely quiet and emit very low vibration. Subminiature size and low energy consumption make them ideal for transportable and mobile systems, among others.

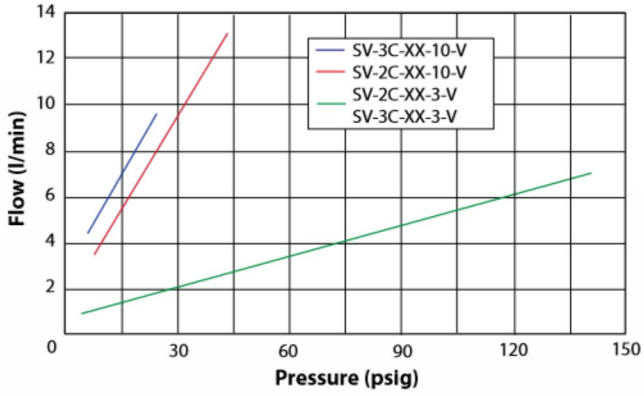
Standard products offered will fit the needs of most applications, however this series can be fully customized according to the user's unique requirements.

| | |
|---|---|
| **Valve Type** | 2-Way and 3-Way Normally-Closed |
| **Medium** | Air, water, gas, or compatible fluids |
| **Nominal Power** | 0.5 to 1.2 watts |
| **Response Time** | <5 ms* |
| **Temperature Range** | 32 to 122˚F |
| **Electrical Connection** | 3" Wire Leads |
| **Voltage** | 12 VDC or 24 VDC |
| **Mounting** | Cartridge |
| **Wetted Materials** | Stainless Steel |
| **Seal Material** | FKM standard, EPDM available |
| **More Details** | clippard.com/link/sv |

**Customizable to the specifications of the application. Call **877-245-6247**.*

- **1,000,000,000+ cycle life**
- **Extremely minimal dead volume**
- **Low vibration and noise**
- **100% tested**

*Pressure vs. Flow*

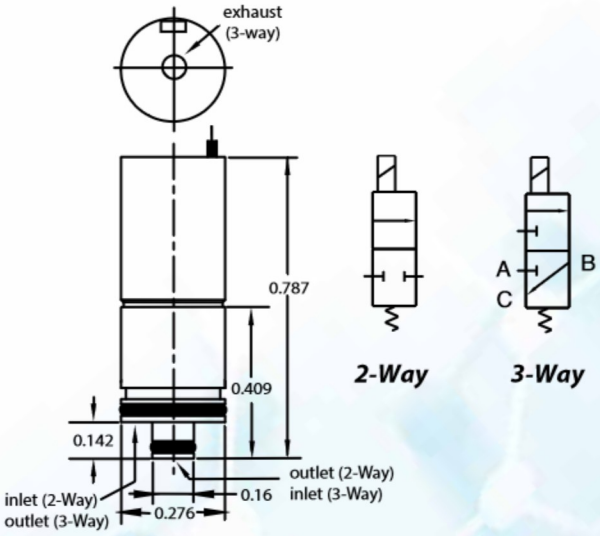



| Type | Pressure | Orifice | Part No. | Voltage |
|---|---|---|---|---|
| **2-Way** | 0 to 145 psig | 0.012" | SV-2C-12-3-V | 12 VDC |
| | | | SV-2C-24-3-V | 24 VDC |
| | 0 to 45 psig | 0.039" | SV-2C-12-10-V | 12 VDC |
| | | | SV-2C-24-10-V | 24 VDC |
| **3-Way** | 0 to 144 psig | 0.012" | SV-3C-12-3-V | 12 VDC |
| | | | SV-3C-24-3-V | 24 VDC |
| | 0 to 22 psig | 0.039" | SV-3C-12-10-V | 12 VDC |
| | | | SV-3C-24-10-V | 24 VDC |


## SINGLE-STATION MANIFOLD

*Black anodized aluminum.*
*Other materials available.*

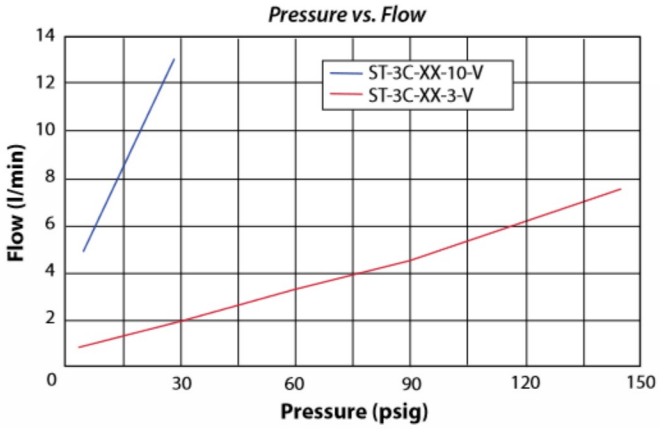
| Part No. | Description |
|---|---|
| SVM-01 | Single-Station Manifold, #10-32 |
| M-SVM-01 | Single-Station Manifold, M5 |
| SVM-MC | Mounting Clip & Screw Only |

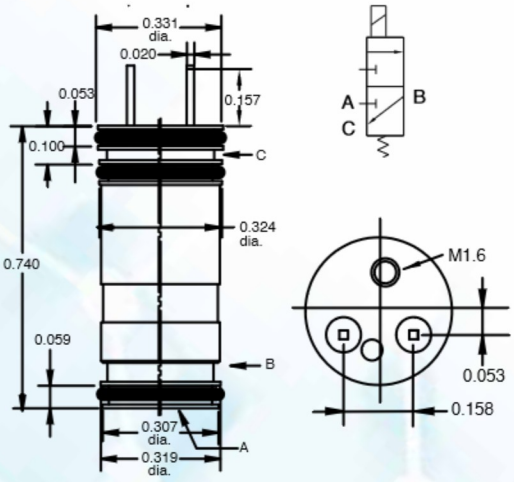


# **8 MM** VALVES

## 3-WAY SUBMINIATURE VALVES

- 1,000,000,000+ cycle life
- Extremely small dead volume
- Low vibration and noise
- Exceptional repeatability and reliability
- Compact and ideal for sub-assemblies
- 100% tested




These direct actuating valves offer an extremely fast response time for accurate dosing of minute volumes with the same long life you expect from the original Clippard EV line of electronic valves, in a 8 mm cartridge package. Due to very low moving weights, they are extremely quiet and emit very little vibration. Subminiature size and low energy consumption make them ideal for many medical and diagnostic applications.

Standard products offered will fit the needs of most applications, however this series can be fully customized according to the user's unique requirements. Consult Clippard with your specific application.

| | |
|---|---|
| **Valve Type** | 3-Way, Normally-Closed |
| **Medium** | Air, water, gas, or compatible fluids |
| **Nominal Power** | 0.55 watts* |
| **Response Time** | <5 ms* |
| **Temperature Range** | 32 to 122°F |
| **Electrical Connection** | Terminal pins |
| **Voltage** | 12 VDC or 24 VDC* |
| **Mounting** | Cartridge |
| **Wetted Materials** | Stainless steel |
| **Seal Material** | FKM standard; EPDM available |
| **More Details** | clippard.com/link/st |

**Customizable to the specifications of the application. Call **877-245-6247**.*

| Part No. | Pressure | Orifice | Voltage |
|---|---|---|---|
| ST-3C-12-3-V<br>ST-3C-24-3-V | 0 to 145 psig | 0.012" | 12 VDC<br>24 VDC |
| ST-3C-12-10-V<br>ST-3C-24-10-V | 0 to 29 psig | 0.039" | 12 VDC<br>24 VDC |

## SINGLE-STATION MANIFOLD

| Part No. | Description |
|---|---|
| STM-01 | Single-Station Manifold, #10-32 |
| M-STM-01 | Single-Station Manifold, M5 |

*Black anodized aluminum manifold comes with mounting screw. Other materials available.*

## PROBLEM

**Highly specialized equipment often presents very specific design challenges. This can be especially true in laboratory or analytical environments where the optimization of new equipment requires special components that are able to meet unique demands such as specific pressure, flow, and heat requirements. This OEM's system was leaking, but the fix would not be simple. Their application included a long list of critical specifications. On top of needing to maintain an existing footprint, the system also needed to minimize internal volume, could not generate much heat, and had to control a precise flow at a very specific pressure.**

## SOLUTION

While the requirements may seem daunting, this is just the type of problem that Clippard excels at solving. Our subminiature 8 mm valves provide precise, accurate flow control and generate very little heat—they were perfectly suited for this application. The OEM's existing system was leaking, so Clippard closely examined factors which could be contributing to this. Replacing the valves was a step forward, but Clippard also found that the gaskets in the existing manifold were leak points as well.

To ensure the fewest possible leak points, Clippard designed an acrylic diffusion-bonded manifold which not only eliminated the need for gaskets, but also allowed critical passages at tight tolerances. The special manifold allowed the new valves to be mounted together tightly and compactly, providing a leakproof solution with an even smaller footprint than the OEM had previously.

*"When our engineering team is working directly with the customer's engineering team—that is when Clippard's experience, creativity, and expertise are of most benefit to all involved."*

**JERRY GROTELUESCHEN**

ENGINEERING MANAGER,
APPLICATION ENGINEERING GROUP

**WHAT CAN CLIPPARD DO FOR YOU?**

877-245-6247