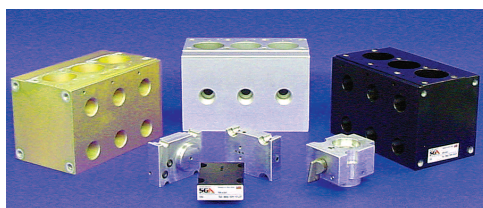


# Cartridge Valves

Design for 100% leak-free operation into 2-, 3- and 4-way configurations.



SG Alternatives offers complete assemblies including cartridge valves inserts, flow control valves, pilot valves and manifolds to suit our customers requirements.

All of SG Alternatives cartridge valves are designed to operate 100% leak free and come in 2, 3 and 4 way configurations.

Our flow control valves include spring load and pressure activated valves. We also manufacture needle or speed control valves to regulate air flow in multi event applications.

The basic cartridge valve design includes a valve poppet and sleeve. These are held in either the normally open or closed position by a coil spring, depending on poppet configuration.

SG Alternatives modular cartridge valve technology of self-contained bolt-in valves has an enormous influence in the design and performance of manifolds. Large cumbersome direct-piped valves have given way to smaller and more compact cartridge valves. SG Alternatives bolt-in modular cartridge valves generally have a higher flow to weight and are lower cost and simpler to diagnose and replace.

The many significant advantages and benefits of using SG Alternatives modular cartridge valve and manifold system compared to traditional valving and piping methods of installation include:

## Applications:

- Mobile Equipment
- Glass Forming Machines
- Pneumatic controlled clamping devices
- Air motors
- Automation
- Sorting and selecting machines
- Leveling systems
- Pick and place systems

- Neater overall installation with less cumbersome and unsightly piped connections
- Small and compact sizes with cartridge valves designed for confined spaces.
- Flexibility of manifold circuit design from very simple to very complex circuits to suit customers requirements
- Better overall efficiency and energy saving due to reduction in pressure drop.
- Cost reduction of installation and piping due to the consolidation and compact design.
- Improved overall performance due to the reduction in connections, connection fatigue, and piping bending, cracking and leaking.
- Reduction in associated maintenance due to the reduction in piping and connections.

| General Data              | Value | Unit      | Specifications                                    |
|---------------------------|-------|-----------|---|
| Designation               | —     | —         | 2-, 3-, 4-way Cartridge Valve                     |
| Mode of Construction      | —     | —         | Pilot Operated Poppet Valve                       |
| Valve body                | —     | —         | 6061 T6 aluminum, Anodized to MIL Spec. A8625     |
| Seals and O-rings         | —     | —         | Fluoroelastomer                                   |
| Electrical Specifications | —     | DC        | 12, 24 VDC  |
|                           | —     | AC        | 120 VAC   |
| Mounting Method           | —     | —         | Manifold Cartridge Mounting                       |
| Branch Circuit Connection | —     | —         | Bore through Manifold                             |
| Mounting Dimensions       | —     | —         | See Dimensions page 3                             |
| Mounting Positions        | —     | —         | Any   |
| Internal Orifices         | —     | —         | 0.560"  |
| Media                     | —     | —         | Lubricated Air, non-lubricated air or inert gases |
| Operating Pressure        | Min.  | psi (bar) | 0 (0)   |
|                           | Max.  | psi (bar) | 200 (14)  |
| Temperature Range         | Min.  | °F (°C)   | -13°(-25°)  |
|                           | Max.  | °F (°C)   | +176°(+80°)                                       |

*Innovation taking form<sup>sm</sup>*

**SGA**  
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