



MODULAR VALVES

- Available in an unlimited variety of directional, low pressure, and special control valves
- The supreme "plug-and-play" devices for pneumatic applications

pp. 102-113

PROBLEM

Sometimes, it's all about the timing. In this case, a retrofit to an old machine was needed—fast! The OEM sought a partner who could help modify an existing design and meet a tight deadline.

SOLUTION

In these types of situations, the Clippard modular valve works wonders. These valves mount and link together with a special piping system which eases assembly and plumbing, provides reduced labor costs, minimizes errors in installation, and eliminates potential leak points. Clippard modular valves have been uniquely designed to enable multiple valve elements to be contained within a single valve body. This provides incredible flexibility and variety, allowing Clippard modular valves to accomplish a myriad of control challenges.

In this case, Clippard modular valves were specially configured to meet the requirements of this particular application and mounted on a special acrylic subplate, thereby greatly simplifying redundant circuitry. The OEM's new circuit improved the performance and maintenance of their system and shipped in time to meet their deadline.

WHAT CAN CLIPPARD DO FOR YOU?

877-245-6247



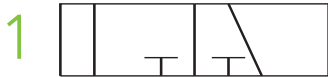
MODULAR VALVES

OVERVIEW

Modular valves provide a great deal of versatility with just a few simple components. They consist of essentially three base valve types combined with 18 different options for actuation. As you will see in the proceeding pages, this results in a huge variety of valve options.



BASE VALVE TYPES



Can be used as:

- 2-Way N.C. or N.O.
- 3-Way N.C. or N.O.
- 3-Way Diverter or Selector



Can be used as:

- 4-Way fully ported
- Dual 2-Way (N.O. and N.C.)
- Dual 3-Way with common exhaust (N.O. and N.C.)

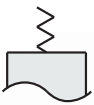


Can be used as:

- 6-Way fully ported
- Dual 2-Way N.C. or N.O.
- Dual 3-Way N.C. or N.O.
- Dual Selector

ACTUATION OPTIONS

Spring Return



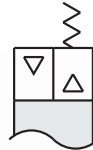
Air Pilot



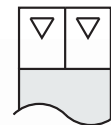
Spring and Auxiliary Pilot



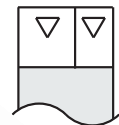
Removable Spring and Auxiliary Pilot



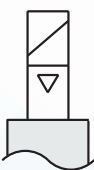
2 Air Pilots "Or"



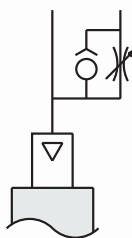
Differential Air Pilots



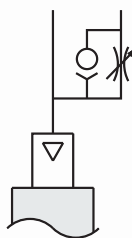
Solenoid Piloted



Delay Out from Air Pilot



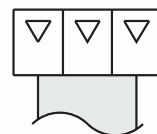
Delay In from Air Pilot



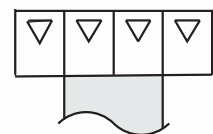
Low Pressure Air Pilot



3 Air Pilots "Or"



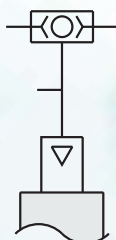
4 Air Pilots "Or"



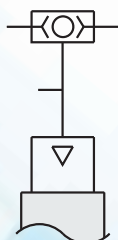
Independent Shuttle Valve and Air Pilot



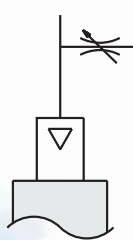
Shuttle Valve to Air Pilot



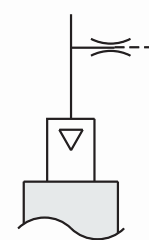
Shuttle Valve to Low Pressure



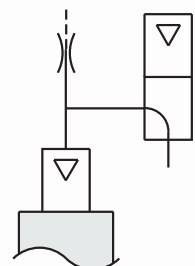
Delay to Air Pilot



Bleed Pressure Pilot

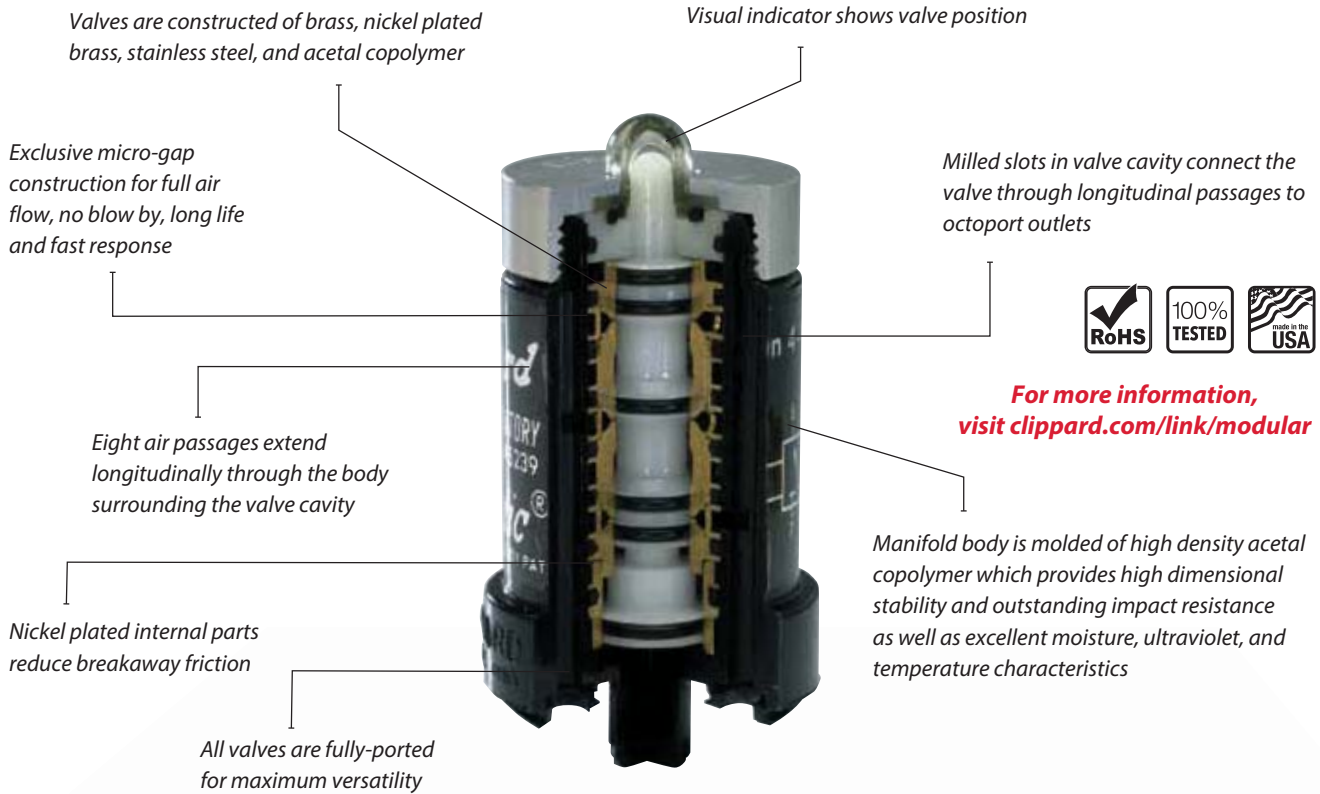


Fluidic Interface Pilot



Modular Valves

Versatility is the key when it comes to these supreme "plug-and-play" pneumatic valves. Available in an unlimited variety of directional, low pressure, and special control valves, each is encased in a body designed to mount and link together with a simple piping system.



For more information, visit clippard.com/link/modular

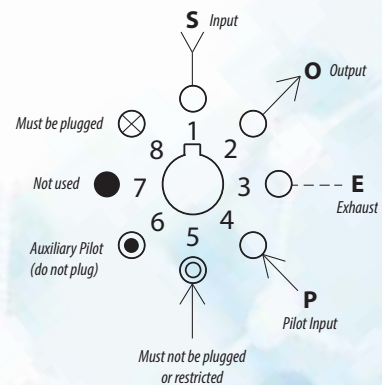
- Air pilot pneumatic valves for air, oil, or water
- Fast response and long life
- Balanced spool design
- Keyed manifold mounting
- Over 70 configurations available
- 0 to 150 psig working pressure
- 250 l/min @ 100 psig flow

Clippard modular valves can easily be configured to perfectly meet the needs of a wide variety of applications. Call **1-877-245-6247** today to discuss your requirements.

OCTOPORT CODING

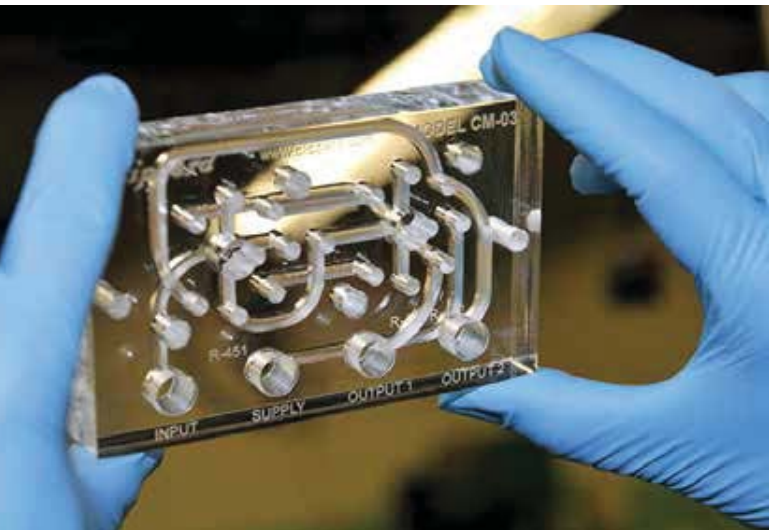
The coding method shown here is frequently used to identify port usage for different variations of Clippard modular valves. Letters are used to identify the supply or signal (S), the output (O), the exhaust (E), and the pilot input (P).

Many modular valves have multiple ported supplies, outputs, or exhausts. If duplicate ports are indicated, one may be marked with an X to indicate that it needs to be plugged. Both/either of the duplicate ports may be used, but unused duplicate ports must be plugged.



MODULAR VALVES

PNEUMATIC CIRCUIT MODULES



Clippard modular valves are available in an unlimited variety of directional, flow, pressure and special control valves, each in a valve body designed to mount and link together with a simple piping system. This system eases assembly and plumbing, resulting in reduced labor costs, fewer errors in installation, and less potential for plumbing leakage. Multiple valve elements can be contained in a single body, providing incredible flexibility and variety to accomplish a myriad of control challenges. Minimatic® modular valves are the supreme “plug-and-play” devices for pneumatic applications.

Versatility is the key when it comes to Clippard **modular valves**

MOST POPULAR STANDARD CIRCUIT MODELS

- VA-03 Binary Redirect Module (“Flip-Flop Circuit”)
- VA-011 Oscillator Module or Auto-Cycling of a Single-Acting Cylinder
- VA-08 Module for Single Input Clamp Control
- VA-023 Two-Hand, No-Tie-Down (THNTD) Circuit
- VA-034 Add-On Module Provides Back Pressure Latch Control
- VA-038 Two-Hand, No-Tie-Down Circuit with Latching Control
- VA-028 Auto-Cycling of Double-Acting Cylinder, 2 Valves
- VA-06 Auto-Cycling of Double-Acting Cylinder, 3 Valves
- VA-031 Back Pressure Sensing for Double-Acting Cylinder
- VA-033 Back Pressure Sensing with a Double-Acting Cylinder Using External Power Valve



For more information, schematics and drawings, visit clippard.com/link/modular



SPEEDY CIRCUIT ASSEMBLY

You can have a faster, more dependable way to produce multiples of the same pneumatic circuit!

*Clippard's modular valve system enables speedy assembly while assuring accurate connections. By utilizing Clippard's unique manufacturing process, these clear acrylic subplates provide sealed passageways between valves without the need for gaskets, clamps, or piping. **It's the fastest, most efficient circuit system available!***

MODULAR VALVES

MOUNTING SUBPLATES & STRIPS



Acrylic subplates provide for up to three modular valves with various port options. Metallic plates mount to standard mounting strips.

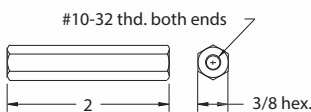
Part No.	Valves	Port(s)	Material	Length	Width	Height	Mounting
R-101	1	-	Metallic	1.625"	2.500"	0.375"	#10-32
R-111	1	-	Metallic	1.734"	1.734"	0.437"	#10-32
CM-04	1	#10-32	Acrylic	3.000"	3.000"	0.625"	(2) 0.196" dia.
CM-02	1	1/8" NPT	Acrylic	3.500"	3.000"	0.625"	(2) 0.196" dia.
CM-036	2	1/8" NPT	Acrylic	7.000"	3.000"	0.625"	(4) 0.196" dia.
CM-037	3	1/8" NPT	Acrylic	10.75"	3.000"	0.625"	(4) 0.196" dia.



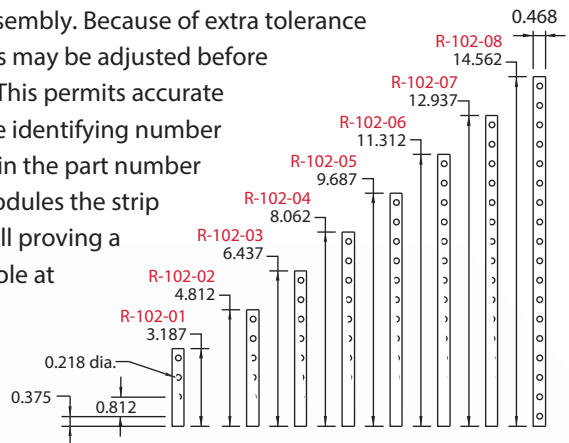
MOUNTING STRIPS & STANDOFF DIMENSIONS

For providing space beneath assembled group of modules, use R-106 (order R-107-20, packet of four with hardware). Provides 2" clearance from enclosure wall for piping with Clippard fittings and tubing. Keeps piping and installation neat.

R-107-20



When metallic subplates are mounted to mounting strips, the components build into a strong, rigid assembly. Because of extra tolerance in the holes, note that strips may be adjusted before screws are fully tightened. This permits accurate alignment of subplates. The identifying number following the second dash in the part number indicates the number of modules the strip will accommodate while still proving a short extension with one hole at both ends for using in mounting the assembly to stand-offs or other structures. The strip will accommodate one additional module if no extensions for mounting are needed. (Every two holes will accept a subplate.)



Adding Value is Our Business

Clippard's Integrated Solutions team designed a simple, straight-forward approach for piloting process valves. This assembly greatly simplifies installation and ease-of-use for the OEM design engineer.

Clippard has a unique advantage by providing custom products and value-added assemblies based on the most successful miniature pneumatic line in the world.



Clippard has designed and manufactured thousands of custom manifolds and assemblies based on specific customer requirements.