

Miniature Pneumatic Flow Control Solutions

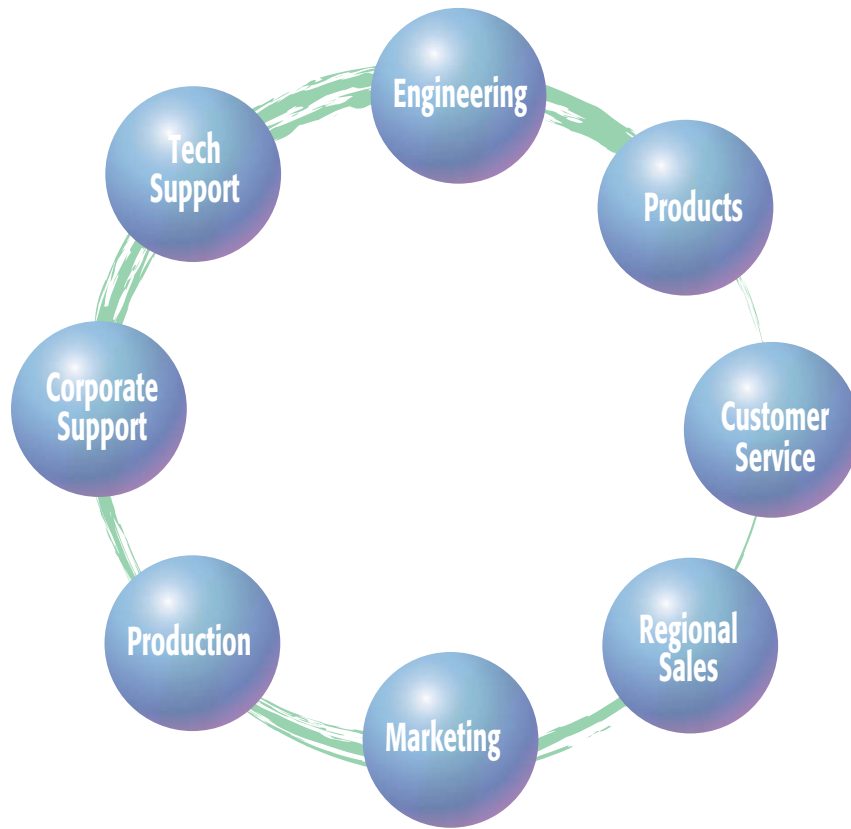


Clippard

Analytical Instrumentation
Anesthesia Equipment
Automation
Blood Analysis & Monitoring
Bulk/Solid Handling
Ceramic/Glass/Plastic
Chemical Analyzers
Dairy
Dental Instrumentation
Differential Pressure Testing
DNA Analysis
Drug Dispensing
Electronics
Fermentation
Food & Beverage Dispensing
Fraction Collectors
Gas Chromatographs
HPLC Analyzers
Immunoassay Devices
Laboratory Equipment
Leak Testers
Liquid Chromatographs
Mass Spectrometers
Medical Devices
Oxygen Therapy
Patient Simulation
Pharmaceutical
Respiratory
Sterilizing Equipment
Surgical Equipment
Trituration
Ventilation
Water Treatment



A Complete Team Approach



Clippard

- Catalogs & Data Sheets
- 2D & 3D CAD Models
- Large Inventory

- Engineering Expertise
- Technical Support
- Superior Customer Service

- Regional Sales Support
- Quality Products
- Custom Products Welcomed

Flow Control Products

MAR-1 Pressure Regulators

Relieving & Non-Relieving Versions



- Durable and great value
- Robust, compact and reliable
- Multiple pressure range options
- ISO 9001:2015

When Clippard introduced a miniature regulator in 1962, the MAR-1 became very popular as a simple, robust, and cost-effective regulator in a small package with exceptionally long life. As regulator applications continue to increase, Clippard is meeting the demand with a variety of new models, options and improvements.

Regulators are offered in either relieving or non-relieving versions. The relieving design maintains a constant pressure output even when downstream conditions change, while non-relieving regulators do not automatically compensate for changes in downstream flow or pressure. There is no vent to atmosphere, as in a relieving type regulator, and the output pressure can increase due to a downstream event. Non-relieving versions can accommodate compatible liquid applications.

SPECIFICATIONS

Medium	Air, Water* or Oil*
Input Pressure	300 psig max.
Temperature Range	32 to 230°F
Mounting	Cartridge, Manifold & In-Line

* Non-Relieving models only

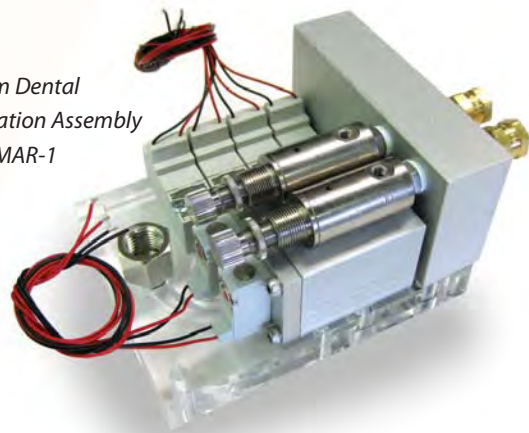


CUSTOM PORTS & CONNECTORS

If you need a product that fits your application perfectly, Clippard has the capability to design or modify one of its products to suit your exact needs.

This application requires a special connection to a MAPP gas canister. The valve is tested for response time and flow rate, which delivers a consistent amount of gas each cycle.

Custom Dental
Application Assembly
using MAR-1

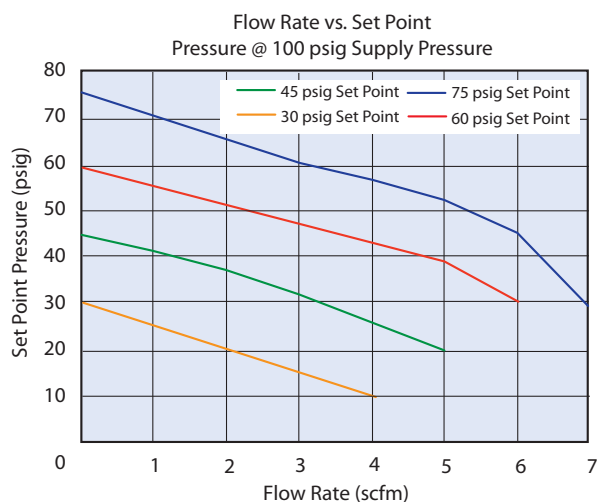


NEW! DR-2 Precision Regulators

Excellent Accuracy & Repeatability



- Design for applications where zero air consumption is required (non-bleed)
- Excellent corrosion resistance
- Relieving and non-relieving designs
- Manifold mount option
- Features non-rising internal adjustment
- ISO 9001:2015



The DR-2 Series is not recommended for applications where dead-end, no flow is required.

Custom Regulators

Special Configurations & Assemblies

If you need a product that fits your application perfectly, Clippard has the capability to design or modify one of its products to suit your exact needs. We understand that a standard catalog product may be close but not be exactly what you need. We have the ability and capacity to give you what you want. Our Engineering Department has designed tens of thousands of special variations, modifications or completely special regulators and other products.

When Clippard invented miniature regulators in 1962, the MAR Series became very popular as a simple, robust, and cost-effective regulator in a small package with exceptionally long life.

As regulator applications continue to increase, Clippard is meeting the demand with the newest addition to the reputable regulator line. The new DR-2 Series provides greater accuracy and repeatability while maintaining the same flow and performance characteristics as the MAR regulators in a durable, sleek package.

Regulators are offered in either relieving or non-relieving versions. The relieving design maintains a constant pressure output even when downstream conditions change, while non-relieving regulators do not automatically compensate for changes in downstream flow or pressure. There is no vent to atmosphere, as in a relieving type regulator, and the output pressure can increase due to a downstream event. Non-relieving versions can also accommodate compatible liquid applications.

SPECIFICATIONS

Medium	Air, Water* or Oil*
Input Pressure	300 psig max.
Repeatability	± 0.1 psi typical (± 0.15 psi max.)
Set Point Sensitivity	0.1 psig
Set Point Stability	0.1 psig
Temperature Range	32 to 230°F
Mounting	Cartridge, Manifold & In-Line

* Non-Relieving models only

CUSTOMer
solutions



Special Body Configuration

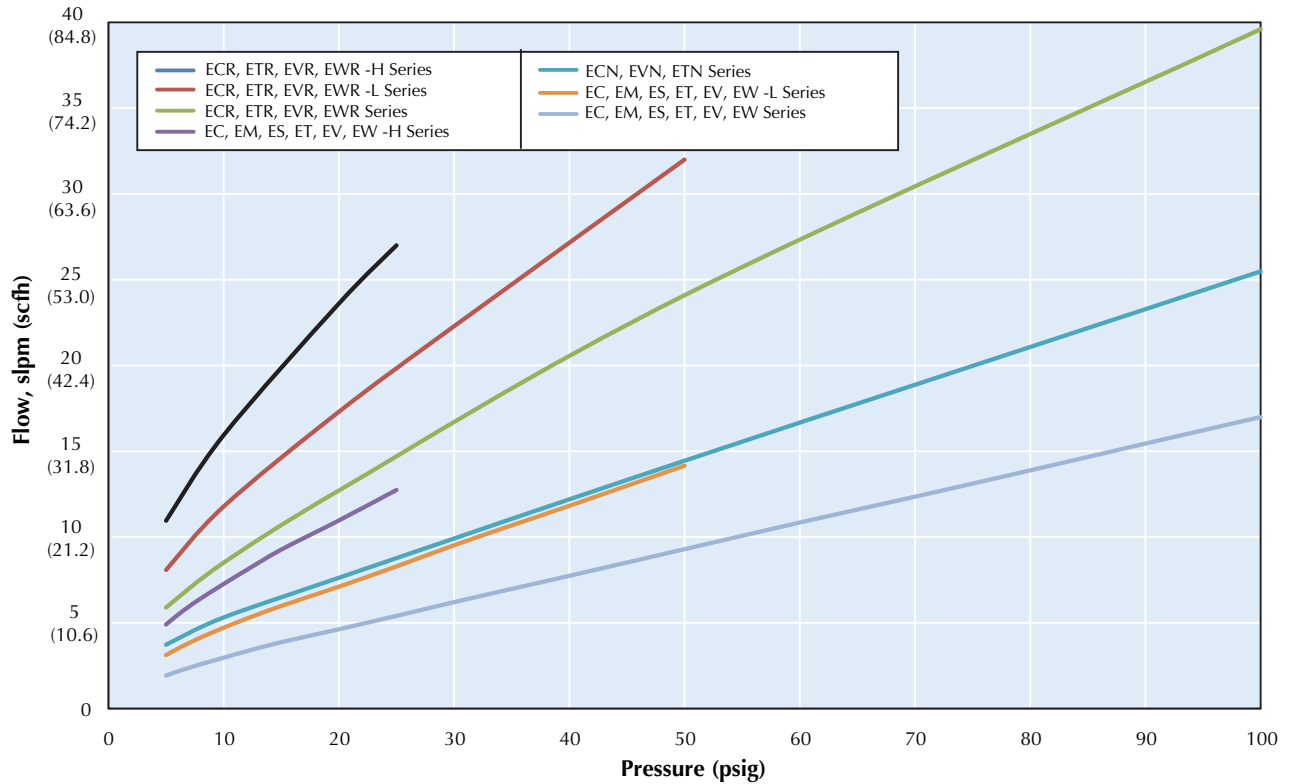


Customer Special Cartridge Configuration

Flow Control Products

Unique EV 2-Way & 3-Way Electronic "Mouse" Valves

Clippard's Electronic Valves are quiet and quick! Valves accept low voltage, low current signals, convert them into high pressure (100 psig) pneumatic outputs. Optional low pressure/medium flow and low pressure/high flow are available.



Standard Series

2-Way and 3-Way manifold and in-line mounting. Normally-Closed and fully-ported versions.

The standard series also includes an option that provides higher flow for 2-way, Normally-Closed applications. Although manifold mounting is accomplished in the same fashion, the inlet is the annular port, and the outlet becomes the center port, through the convenient stud mount of the valve.



Oxygen Clean "O-" Series

All EV, ET, EC and EW series electronic valves with the "O-" part number option are available manufactured and assembled for use in Oxygen-enriched environments for applications that are extremely sensitive to contamination.

Valves are ultrasonically cleaned, assembled, inspected and tested in an enclosed controlled area with a state-of-the-art positive pressure HEPA filtration system.



Analytical "A-" Series

Clippard's Electronic Analytical Valve (A-) series combines the proven features of the "Mouse" series with the specific needs of the analytical industry, and for applications where cleanliness is especially important. Special materials, manufacturing and assembly processes make this valve perfectly suited for applications where internal cleanliness, bubble-tight operation, and long life are imperative.



EM Stud Mount 2-Way & 3-Way Electronic Valves

An even smaller Mouse valve! When space is critical, the EM Series Valve provides a great solution. At just over an inch tall, and less than 3/4" in diameter, the EM Valve uses Clippard's special "spider" design. This reliable and proven design for long life is housed in a miniature body, and incorporates wire leads out the top, allowing body rotation for close-center mounting. In addition, the valve features higher flow; combining fast shifting speed, extremely high cycle life with the design flexibility to make this valve a "small wonder" for demanding applications.

This valve is perfect for air and/or gas control, pilot control, and any application where space is limited, but desired performance is not.



- Unique "Spider" Design for Extremely Long Life
- Small Size—High Flow
- Compact Manifold Spacing (0.740" centers)
- Low Power, Quiet Operation

SPECIFICATIONS

Medium	Clean, dry air
Power Consumption	1 watt at rated voltage
Response Time	10 ms at nominal voltage
Operating Range	90 to 120% of rated voltage
Voltage	12 or 24 VDC

ES Series 2-Way & 3-Way Electronic Valves



SPECIFICATIONS

Medium	Clean, dry air
Power Consumption	1 watt at rated voltage
Response Time	5 to 10 ms at max. rated pressure
Operating Range	90 to 120% of rated voltage
Voltage	12 or 24 VDC

The compact ES valve, like Clippard EV and ET valves, converts low voltage, low current signals into high pressure (0 to 105 psig) pneumatic outputs, utilizing a unique, patented valving principle. Since there are no sliding parts, and complete poppet travel is only 0.007", low power consumption and exceptionally long life are assured with this design. No flow is required for cooling because the compact ES is cool, as well as quiet, in operation.

The compact nature of design makes this valve well suited to a wide range of applications in biomedical, environmental test equipment, textile machines, packaging machinery, computerized industrial automation, and portable systems.

- Close mounting - 7/8" on center
- Overall height less than 1"
- Easy to mount on manifold with two #4-40 screws
- Geometric design
- Polymer housing - Zytel ST 801[®] super tough
- TE Connectivity-style pin connection or 18" wire leads
- Flow up to 0.6 scfm

Flow Control Products

DV Series 2-Way & 3-Way Electronic Valves



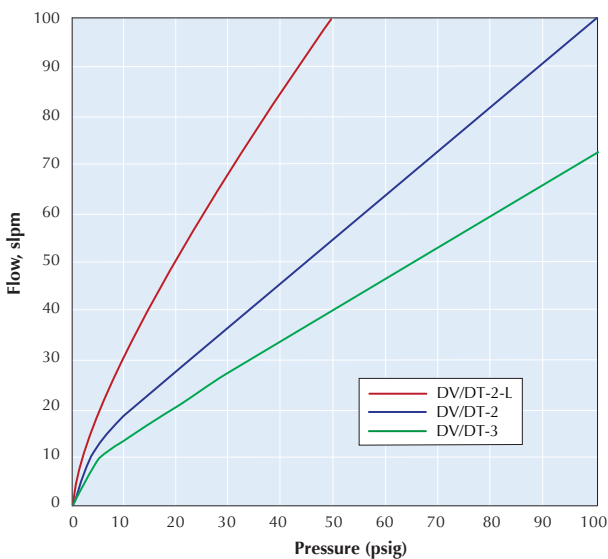
- Industry standard for leak-free operation
- Over 1,000,000,000 cycles
- Fast response time
- Large flows in small, sleek design
- Low heat rise/low power
- Robust stainless steel "Spider" flat armature spring

SPECIFICATIONS

Medium	Compatible Fluids
Power Consumption	1.92 watts
Response Time	10 to 15 ms
Electrical Connection	Spade Terminals or Wire Leads
Voltage	12 or 24 VDC
Material	Stainless Steel
Seal Material	Nitrile standard. FKM & EPDM available

The Next "Gen" Valves that are compact, quick and offer flows to 100 l/min!

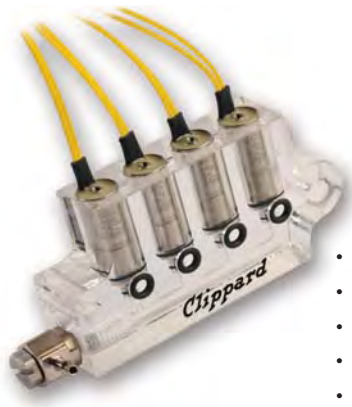
Clippard Minimatic® electronic valves are precision-built control valves utilizing Clippard's patented valving principle. The powerful DV- Series was designed as the next generation of the well-known and trusted original EV line of Clippard "Mouse" valves. With a cycle life of over a billion, a solid, compact design, and extremely high flow rates, these valves are suitable for many applications across numerous diverse industries. A variety of voltage, connector and mounting options are available.



Single- & Multi-Station Manifolds



7 mm 2-Way & 3-Way Normally-Closed SubMiniature Electronic Valves



- Over 1 billion cycles
- Extremely small dead volume
- Low vibration and noise
- Cartridge mount
- Only 0.14 ounces!

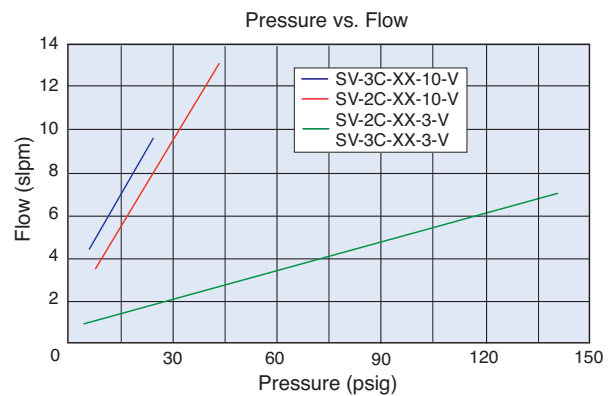
SPECIFICATIONS

Medium	Air, Water, Gas & Compatible Fluids
Nominal Power	0.5 to 1.2 watts
Response Time	<5 ms
Electrical Connection	3" Wire Leads
Voltage	12 or 24 VDC
Wetted Materials	Stainless Steel
Seal Material	FKM standard. EPDM available

These new 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, now 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.

The SV series valves can be fully customized according to the user's unique requirements.

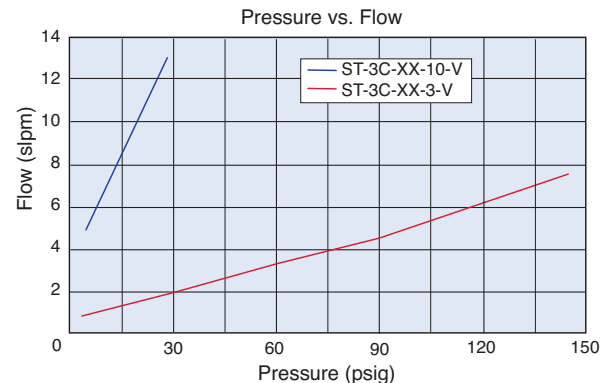


8 mm 3-Way Normally-Closed SubMiniature Electronic Valves



SPECIFICATIONS

Medium	Air, Water, Gas & Compatible Fluids
Response Time	<5 ms
Temperature Range	32 to 122°F
Mounting	Cartridge
Wetted Materials	Stainless Steel
Seal Material	FKM standard, EPDM available



- Over 1 billion cycles
- Extremely small dead volume
- Low vibration and noise
- Exceptional repeatability and reliability
- Ideal for sub-assemblies

Flow Control Products

EV-P 2-Way & 3-Way Proportional Control Valves

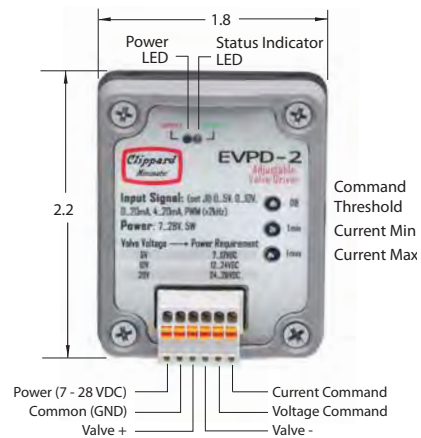
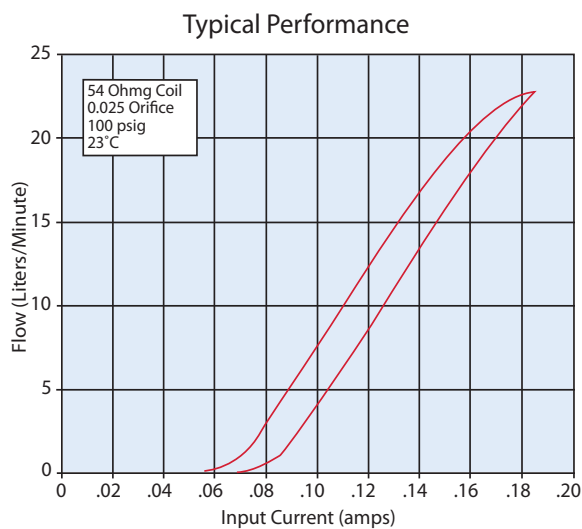


- Flow proportional to input current
- Fast response
- Long life
- Small package
- Single moving part - low friction and wear
- Five orifice sizes
- Three connection styles
- Two mounting types

The EV-P series Proportional Control Valves combine the features of the existing EV series valve - long life, low power, and Clippard's reputation for high quality components - with the additional capability for proportional control.

The EV-P series valve provides air or gas flow control, and varies the output flow based on the current input to the solenoid. The consistent gain (see chart) of this valve provides a high degree of control for many applications.

Controllability and overall value are the main features of the EV-P Proportional Valve series. The valve may be controlled using DC current, open or closed-loop control, and even PWM (Pulse Width Modulation) to cover a broad range of applications.



The EVPD Proportional Valve Driver fast-tracks valve-control applications. This product is ideal for laboratories and OEM product development, and can be customized to fit OEM applications including control parameters. The EVPD produces driver current for Clippard's EV-P series valves proportional to input control signals.



NEW! DVP 2-Way High Flow Proportional Control Valves



- Industry standard for leak-free operation
- Over 1 billion cycles
- Extremely low hysteresis
- Fast response time
- Large flows in small, sleek design
- Robust stainless steel "Spider" flat armature spring

SPECIFICATIONS

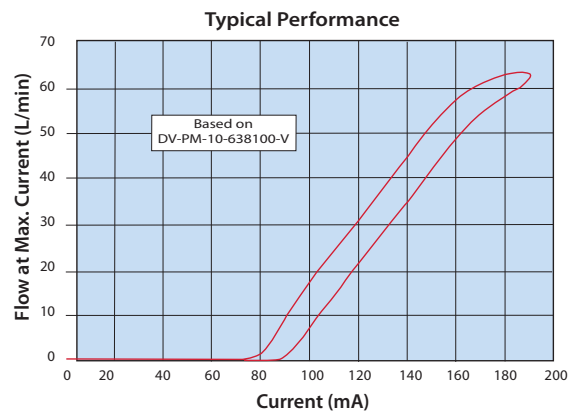
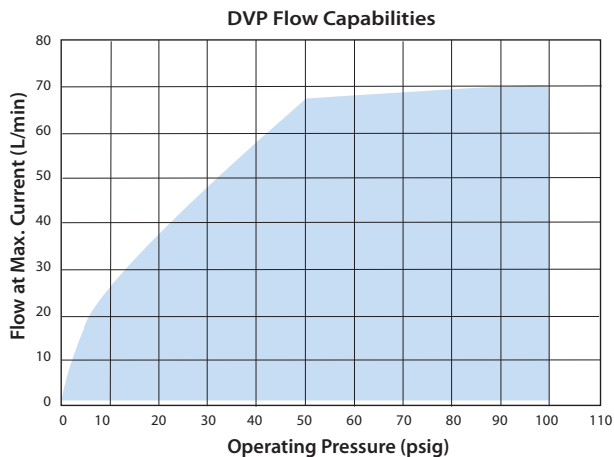
Medium	Air, Water, Gas & Compatible Fluids
Max. Hysteresis	10% of full current
Power Consumption	1.9 watts at 72°F, 2.5 watts max
Voltage	10 or 20 VDC
Mounting	Manifold, #10-32 Male
Seal Material	Nitrile standard, FKM, EPDM and Silicone available

Clippard's newest DVP series proportional solenoid valves are precision-built 2-way control valves, utilizing a unique, patented valving principle. This powerful series was designed as the next generation of the well-known and trusted original EV line of Clippard "Mouse" valves. With a life of over a billion cycles, a solid, compact design, and extremely high flow rates, these valves are suitable for many applications across numerous industries.

The DV-P series valve provides air or gas flow control, and varies the output flow based on the current input to the solenoid. The consistent gain (see chart) of this valve provides a high degree of control.

Controllability and overall value are the main features of the DV-P series. The valve may be controlled using DC current, open or closed-loop control, and even PWM (Pulse Width Modulation) to cover a large range of applications

- Industry standard for leak-free operation
- Over 1,000,000,000 cycles
- Extremely low hysteresis
- Fast response time
- Large flows in small, sleek design
- Low heat rise/low power
- Robust stainless steel "Spider" flat armature spring



Flow Control Products

Stepper-Controlled Proportional Valves



- <2% hysteresis
- Excellent Linearity — <2.5% of full-scale
- 2 ms reaction time
- Millions of cycles
- Holds position for power savings or at loss of power

Utilizing the industry's most robust and powerful linear actuator, the high flow stepper-controlled proportional valve outperforms the competition in performance and durability.

This valve is ideal in critical applications such as gas delivery, medical, analytical, and industrial automation requiring high resolution, high flow, and low hysteresis. In addition, the unique design allows for custom flow profiles when required.

SPECIFICATIONS

Medium	Air & Compatible Fluids
Pressure Range	Vac to 100 psig*
Flow Range	0 to 280 slpm
Driver	Bipolar chopper drive required
Mounting	In-line, manifold or cartridge
Power Consumption	3.85 watts nominal only during adjustment. Zero power to maintain position

** This product is highly modifiable for OEM applications including alternate body materials, flow profiles, mounting, etc.*

Needle, Toggle & Cartridge Valves

Available in 2-way, 3-way and 4-way configurations, these valves feature many benefits including proven reliability, compact size, economical pricing, precision machining and more. Choose between brass or ENP brass in addition to multiple mounting and adjustment options.



Compact Cartridge Valves conveniently connect to pre-piped manifolds, thereby eliminating the need for external plumbing, in addition to saving space and reducing potential leak points.



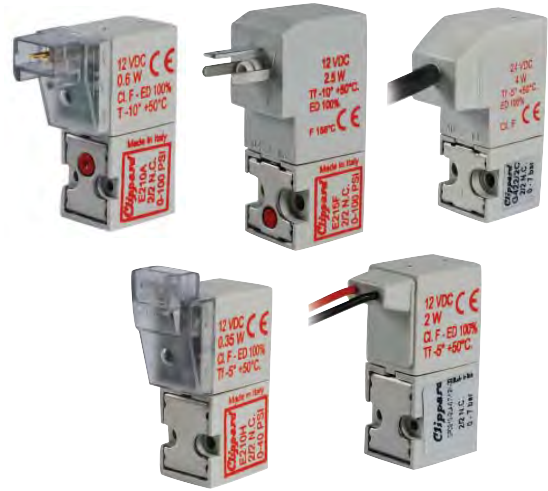
- Will accept a variety of manual, air pilot, electrical or mechanical actuators
- Design flexibility and fast response
- Normally-Open and Normally-Closed configurations
- ENP steel or plastic toggles



10 mm & 15 mm Miniature 2-Way & 3-Way Electronic Valves

All of the benefits of Clippard quality and reliability are now available in these 10 mm and 15 mm valves. Offered in both Normally-Open or Normally-Closed models, these 2-way and 3-way valves are perfect for small areas where compact \ electronically-controlled pneumatics are needed.

This series has a high strength, engineered light-weight glass filled nylon body, along with stainless steel, copper and Nitrile, making it suitable for a broad range of applications. With exceptional life and reliability this is the perfect sub-miniature valve for tomorrow's needs in a wide variety of industries.



10 mm Standard Series

Direct operating valves well-suited for single- or multiple-valve mounting in small spaces.

10 mm Latching Series

A short pulse of current shifts this valve which "latches" indefinitely; another pulse returns the valve.

10 mm High Flow 2-Way Series

Specialty series for high flow applications (Max. Flow Rate: 28 L/min).

10 mm ISO 15218 Series

Conforms to ISO standard for mounting and port locations.

15 mm Standard Series

Direct operating valves well-suited for single- or multiple-valve mounting in small spaces.

15 mm Latching Series

A short pulse of current shifts this valve which "latches" indefinitely; another pulse returns the valve.

15 mm High Flow 2-Way Series

Specialty series for high flow applications (Max. Flow Rate: 120 L/min).



- High durability and corrosion-resistant glass filled nylon housing
- Large variety of control voltages and connections
- Huge inventory, ready to ship
- Value based, highly reliable line

SPECIFICATIONS

Medium	Ai, Gas & Compatible Fluids
Response Time	8 to 12 ms
Power Consumption	0.6 to 6.0 watts
Orifice Options	0.020", 0.030", 0.032", 0.043" & 0.063"
Mounting	NPT, Side Mounted & Manifold
Connectors	90°, In-Line & Wire Leads



Flow Control Products

NPV Series 2-Way & 3-Way Miniature Solenoid Pinch Valves



- Small, compact design
- Hygienic and easy to clean (replace tubes)
- Low power consumption
- High cycle life
- Can handle whole blood and particulate matter
- Unobstructed flow path
- Available 2-Way (Normally-Open or Closed), or 3-Way (one tube Normally-Open, one tube Normally-Closed) configurations

The NPV Series Pinch Valves are solenoid-operated devices designed to open and close tubes for controlling flow of liquid and gases. Other valve types have internal passages that may cause small amounts of fluid to remain in the valve. Pinch valves have no areas or dead volume where fluid can become trapped. Only the inside of the tubing contacts the fluid. Energizing the solenoid retracts or attracts and plunger, which opens or closes the tube. De-energizing the solenoid will allow the plunger to return to its original state.

SPECIFICATIONS

Medium	Air, Water, Gas & Compatible Fluids
Max. Pressure Range	20 to 30 psi*
Response Time	5 to 25 ms
Power Consumption	1.0 to 7.2 watts
Electrical Connection	18" wire leads
Mounting	#2-56, #4-40

** with standard medical/laboratory grade silicone tubing*

Medical/Laboratory Grade Silicone Tubing

- Suitable for a large variety of medical and laboratory applications
- Excellent flexibility
- Contains no organic plasticizers, phthalates or latex additives

SPECIFICATIONS

Material	Platinum-cured silicone
Durometer Hardness	50 Shore A 50
Tensile Strength at Break	1,388 psig
Elongation at Break	815%
Modulus at 200%	299 psig
Tear Strength	263 psig

Sanitary Food Grade Silicone Tubing

- Suitable for various applications in the food and beverage industries where preservation of taste, aroma and color are crucial
- Excellent flexibility
- Entirely non-toxic, non-hemolytic and non-pyrogenic

SPECIFICATIONS

Material	Platinum-cured silicone
Durometer Hardness	50 Shore A
Tensile Strength at Break	1,450 psig
Elongation at Break	770%
Modulus at 200%	280 psig
Tear Strength	200 psig

NIV Series PTFE Solenoid-Operated Isolation Valves



- Small, compact design
- Bidirectional
- Low power consumption
- High cycle life
- All wetted areas PTFE
- Ideal for use with corrosive media
- Fast response time



Manifold Mounted
styles coming
soon

The NIV Series Isolation Valves are solenoid-operated devices that use a flexible diaphragm to isolate the actuation mechanism from the fluid path.

A unique feature of the NIV Series is the one-piece valve stem that functions as a sealing membrane while also supporting and centralizing the poppet in the seating area. This multifunctional poppet/diaphragm/stem results in a simplified design with fewer parts, longer life and zero dead volume. Four orifice sizes are available.

SPECIFICATIONS

Medium	Air, Water, Gas & Compatible Fluids
Operating Pressure	Vacuum to 30 psig
Response Time	5 to 20 ms
Power Consumption	1.0 to 7.2 watts
Flow	10 to 60 L/min
Mounting	#2-56, #4-40

Air Volume Tanks



Clippard offers a line of air volume tanks suitable for use with Clippard air components. Using the same quality rolled construction as Clippard stainless steel cylinders, tanks are manufactured to exacting standards. Each is provided with a threaded port at both ends. Available in standard stainless steel, all stainless steel or polypropylene.

For additional corrosion resistance, Clippard can offer air volume tanks with Acetal heads.

- Volumes from 1 to 16 cu. in.
- 10 models
- 304 stainless steel tubes
- Precision rolled construction
- Easy to connect, mount and use in your circuits
- Anodized aluminum heads
- Optional 303 stainless steel head with "SS-" styles
- Maximum pressure 250 psig

Flow Control Products

NPP Series 2-Way Miniature Pneumatic Pinch Valves



- Small, compact design
- Normally-Open or Normally-Closed styles
- Hygienic and easy to clean (replace tubes)
- Can handle whole blood and particulate matter
- Unobstructed flow path

SPECIFICATIONS

Valve Type	2-Way, Normally-Open & Normally-Closed
Medium	Air, Water, Gas & Compatible Fluids
Max. Pressure Range	20 to 30 psig
Mounting	#4-40
Temperature Range	32 to 230°F
Wetted Materials	Medical or Food Grade Silicone, or Polyurethane tubing. Wide selection of materials and sizes

Medical/Laboratory Grade Silicone Tubing

- Suitable for a large variety of medical and laboratory applications
- Excellent flexibility
- Contains no organic plasticizers, phthalates or latex additives

SPECIFICATIONS

Material	Platinum-cured silicone
Durometer Hardness	50 Shore A
Tensile Strength at Break	1,388 psig
Elongation at Break	815%
Modulus at 200%	299 psig
Tear Strength	263 psig

Clippard's NPP Series Pneumatic Pinch Valves are air-piloted devices designed to open or close tubes for controlling flow of liquids and gases. Other valve types have internal passages that may cause small amounts of fluid to remain in the valve. Pinch valves have no areas or dead volume where fluid can become trapped. Only the inside of the tubing has contact with the fluid.

Common industries that utilize pinch valves for the benefit of isolating fluid from a mechanical valve including drug dispensing, laboratory equipment, wastewater, medical devices, chemical, food and beverage equipment, ceramic/glass/plastic, and bulk and solid handling.

Polyurethane Tubing

- Excellent flexibility. Abrasion and chemical resistant
- UV Stabilized
- Resin Compliance: NSF61, Meets UL94HB, USPVI

SPECIFICATIONS

Material	Polyurethane
Durometer Hardness	85 Shore A
Static Burst Pressure	Over 500 psig at 70°F

Sanitary Food Grade Silicone Tubing

- Suitable for various applications in the food and beverage industries where preservation of taste, aroma and color are crucial
- Excellent flexibility
- Entirely non-toxic, non-hemolytic and non-pyrogenic

SPECIFICATIONS

Material	Platinum-cured silicone
Durometer Hardness	50 Shore A
Tensile Strength at Break	1,450 psig
Elongation at Break	770%
Modulus at 200%	280 psig
Tear Strength	200 psig

ADDING VALUE *is our business*

The Clippard Advantage

Clippard Instrument Laboratory provides thousands of standard and special pneumatic products to design engineers and manufacturers around the world. Clippard has a unique advantage by providing custom products and value-added assemblies based on the most successful miniature pneumatic line in the world.



Advantages

- 100% tested sub-assemblies
- Less component stock/inventory
- Fewer vendors and purchase orders
- Requires less manufacturing time
- Increase production efficiency
- Specialized support
- Overall cost reduction
- Taking advantage of Clippard's expertise



Engineered Solutions & Assemblies

We have an expansive line of components that are used in thousands of applications across many markets. It is this experience and knowledge of our own products that is now available to our customers when collaborating with Clippard to develop the right solution. Our Production, Engineering and Sales staff will come together with your organization to design, build, test and ship your pneumatic assembly when you need it.



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

-Jerry Grotelueschen
Engineering Manager, Application Engineering Group

Clippard offers the following services:

- Pneumatic Assemblies
- Fitting & Tubing Harnesses
- Special Manifold Designs
- Component Kitting
- Manifold Assemblies
- Specialized Testing
- Pneumatic Circuit Design
- KanBan Services
- Control Boxes

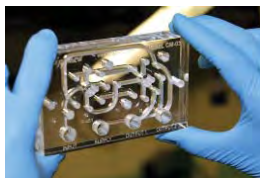
Flow Control Products

Standard & Custom Manifolds

Clippard Advantages

- Specialized Engineering Team
- Broad Product Line
- Designed & Manufactured in One Location
- Fast Response Times
- High Quality Standards
- Excellent Value
- Friendly & Helpful Customer Service Team
- Experienced Technical Support Team
- Best Regional Sales Guy EVER!

Manifolds provide integrated circuits and a place to easily mount many types of components with convenient locations for connections. All interconnections are machined right into the material, reducing the amount of piping needed and ensuring highly accurate connections. Our Engineering Team has provided hundreds of custom manifold designs for applications all over the world. In addition, our Value Added Team offers custom etching to identify inputs, outputs, components, etc. This allows for fast, simple assembly and quick, easy visual inspections.



Application Engineering Team

Clippard's innovative Application Engineering Team works closely to define your unique requirement and recommend the best solution. Highly-experienced engineers and CAD specialists will design, build and test the assembly to your specification. Clippard has a unique advantage by providing custom products and value-added assemblies based on the most successful miniature pneumatic line in the world. Our goal is to optimize a systems design, to increase performance, reduce cost, and allow our customers to concentrate on their core competencies. We welcome all opportunities!

Custom Laser Etching

Clippard offers custom laser etching and engraving on most products and materials.



Anodizing

The purpose of anodizing is to form a layer of aluminum oxide that will protect the aluminum beneath it. The aluminum oxide layer has a much higher corrosion and abrasion resistance than aluminum. Custom anodizing is available. Please consult your Regional Sales Manager.

Deburring *the right way!*

Thorough deburring of manufactured product is critical to the performance of individual components and systems. Clippard understands the many issues improper deburring may cause, and utilizes the most state-of-art process available to ensure clean machined product.



Clippard's unique, in-house Thermal Deburring process utilizes the combustion of methane gas within a pressurized chamber to remove burrs, flashings or hidden contaminants from machined components through an oxidation reaction. The gases surround all burrs and flashings, allowing for their complete removal regardless of the location on the component. This results in a component free of any loose particles.

Materials

Clippard offers products manufactured in many different materials depending on the requirements of your application.

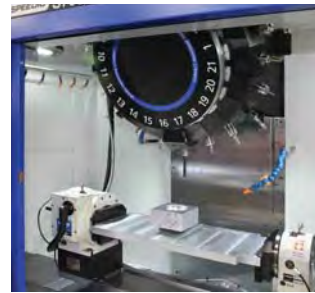
- Acrylic
- Aluminum
- Stainless Steel
- Brass
- Delrin
- Nylon
- PTFE
- Peek



Precision Manufacturing

Quality remains a primary feature of every product Clippard produces—achieved through excellence in manufacturing practices and craftsmanship. Clippard is ISO 9001:2015 certified and continues to be driven by innovation and continuous improvement in all areas of the company. Our Operations Team is skilled in a broad range of advanced manufacturing processes and techniques, utilizing many different technologies and machines, including nine axis CNC turning, milling, EDM, laser, robotic, vision, electrical, mechanical, hydraulic and pneumatic equipment.

- 24/7 Automated Precision CNC Machines
- State-of-the-Art Multi-Axis Bar Machines
- Variety of Capabilities & Flexibility
- Unparalleled Assembly Experience
- Fast Response Times
- High Quality Standards
- Excellent Value



Testing

Clippard is very experienced at trouble shooting at the component level due in part to our internal testing designs and decades of hands-on experience. For special requirements, custom testing is available.

Our products are machined, assembled and tested under one roof therefore higher standards are established for ourselves than the competition.

Clean Room

All Clippard Oxygen Clean, Analytical, Pinch and PTFE Isolation product lines are manufactured and assembled for applications in environments that are extremely sensitive to contamination. They are assembled, inspected and tested in an enclosed controlled area with a state-of-the-art positive pressure High Efficiency Particulate Air (HEPA) filtration system. In addition, both organic and inorganic contaminants such as particulate matter and Hydrocarbon oils are removed.



"We have overcome many manufacturing challenges in materials used, and tighter tolerances, while maintaining our high quality standards and value to our customers."

-Robin Rutschilling, Production Manager

Clippard

Clippard is a Cincinnati, Ohio based company that has been serving their customers and community for more than 75 years. Family-owned and operated, we take pride in our products, our people, our history and our relationships with clients, vendors and distributors.

Our unique culture and strong values sets us apart from our competition. We are not just a manufacturer of quality products, we are interested in helping people and companies find solutions to their challenges.

CUSTOM SOLUTIONS

SPECIAL MANIFOLDS

CONTROL VALVES

ISOLATION VALVES

PINCH VALVES

PROPORTIONAL VALVES

TOGGLE VALVES

NEEDLE VALVES

PRECISION REGULATORS

CYLINDERS

AIR PREPARATION EQUIPMENT

FITTINGS & TUBING

Our Credo

We are engaged in honorable work, providing the world with useful, productive, affordable products.

We do this with the distinction of a long reputation for Quality, Service, Performance and Value.

We deal fairly. We keep our word.

We understand profit is a vehicle to our purposes and not our only purpose.

We support our community.

We enjoy what we do. We are good at it.

We are getting better all the time.

We are grateful to God for our blessings.

We respect and encourage each other.

We show pride in our work.

We are Clippard.



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