Clippard

SPIDER TECHNOLOGY



What is **Spider Technology**?

In 1973, Clippard patented a new valve design that utilized a unique sealing mechanism to improve performance and reliability. The design was a significant advancement and helped establish Clippard as a leading innovator in the field of pneumatic control. It featured a seal that was held in place by a very special spring, which consisted of a central plunger surrounded by several magnetically-responsive "legs" that moved in response to changes in pressure. When the valve was actuated, the legs moved outward, creating an opening that enabled media to flow through. It became known as the Clippard "spider."

This technology has since been copied and mimicked by other manufacturers, but none have come close to perfecting it. Today, Clippard's EV series—the original "spider" valve—remains the industry standard for long life and low leak. Building on this legacy, Clippard offers a wide range of valves that utilize this tried-and-true spider technology to meet the needs of many different industries and applications. All Clippard spider valves are extremely low leak. They provide exceptional reliability; long lifespans; and fast, precise control. They also consume very little power and have minimal internal volume.

Spider valves are well-suited for a broad range of medical, analytical, and niche industrial applications including biomedical, dental, test equipment, oxygen control, textile, packaging, pressure control, automation and portable systems.



What Are the Benefits of a **Spider Valve** vs. a **Solenoid Valve**?

- Longer life—1,000,000,000+ cycles
- · Lower vibration and noise
- · Lower power
- · Faster response time
- More compact and lightweight
- · Less internal volume
- · Better leak resistance

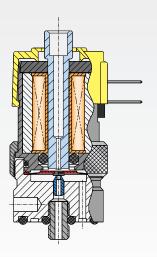


3

The EV Series

Standard

2-way and 3-way manifold and in-line mounting. Normally-closed and universally ported versions.



p. 6

Electroless nickel-plated steel housing and core

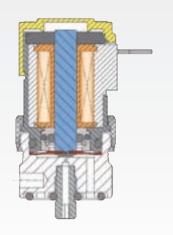
Nitrile seals standard

Electroless nickel-plated brass body

Stainless steel stud and nozzle

High Pressure

Precision-built 2-way control valves that accept low voltage, low current signals and convert them to high pressure (500 psig) pneumatic outputs.



p. 12

Electroless nickel-plated steel housing and core

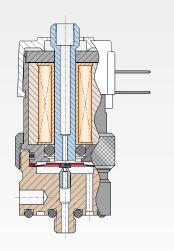
Nitrile seals standard

Electroless nickel-plated brass body

Stainless steel stud and nozzle

Oxygen Clean

Manufactured and assembled for use in oxygen-enriched environments for applications that are extremely sensitive to contamination.



p. 14

Integral fitting and stud

No thread sealant

All wetted parts cleaned to meet and/or exceed ASTM G93 Level E NVR and Level 500 Particulate and Fibers

Electroless nickel-plated steel housing and core

FKM seals

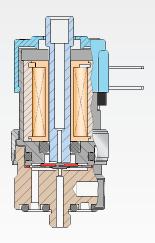
Stainless steel nozzle

Electroless nickel-plated brass body

PFPE lubricant

Analytical

Designed for applications where cleanliness is especially important.
Utilizes special materials, processes, and strict quality standards to achieve the highest levels of cleanliness and ultra low leak rates.



p. 16

Integral fitting

No anaerobic sealant

Larger cross section o-ring improves sealing

Cleaned to meet and/or exceed ASTM G93 Level E NVR and Level 500 Particulate and Fibers

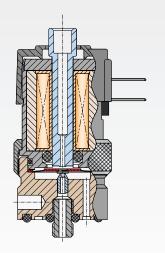
One-piece base eliminates many leak points

Outgassed FKM seals

Corrosion-Resistant

2-way and 3-way manifold and in-line mounting.

Normally-closed and universally ported versions. Optimized for applications where corrosion resistance is important.



p. 18

Stainless steel housing and core

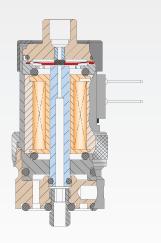
Nitrile seals standard

Electroless nickel-plated spider

Electroless nickel-plated brass body

N.O. Manifold

Normally-open, manifold mount to allow normally-closed and normally-open valves on the same manifold.



p. 20

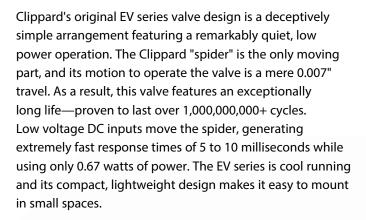
Integral fitting

Spider above coil

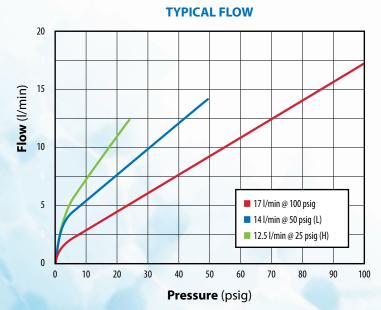
Mounts side-by-side with normally-closed version

EV SERIES ELECTRONIC VALVES





Also available in high flow, oxygen clean, analytical, corrosion-resistant, N.O. manifold, and proportional versions.













Coil Resistance	218 (12V), 864 (24V)
Connection	Pin connector, spade terminals, radial wire leads, or axial wire leads
Current	0.055A (12V), 0.028A (24V)
Cycle Life	>1,000,000,000 (ideal applications)
Filtration	40 micron filter (recommended)
Function	2-way normally-open or normally-closed; 3-way normally-open, normally-closed, or universally ported
Leak Rate	0.1 sccm
Material, Body	Nickel-plated brass, ENP carbon steel, nickel iron alloy, 300 series stainless steel
Material, Seals	Nitrile standard; FKM, EPDM $^{\rm 1}$ and silicone $^{\rm 1}$ available
Material, Spring	Nickel alloy
Material, Wetted	ENP brass, nickel alloy, stainless steel, ENP steel
Max. Flow	17 l/min @ 100 psig (7 bar), 14 l/min @ 50 psig (3.4 bar), or 12.5 l/min @ 25 psig (1.7 bar)
Max. psig	105 (7.2 bar)
Medium	Clean, dry air and compatible gases
Mount	In-line or manifold
Number of Ports	2 or 3
Operating Pressure	28" Hg to 25, 50, or 100 psig (1.7, 3.4, or 7 bar)
Operating Temp. Range	32 to 180°F (0 to 82°C)
Orifice	0.060", 0.040", or 0.025" (1.52, 1.02, or 0.64 mm)
Port, Exhaust	#10-32 or M5 (3-way)
Port, Inlet	Manifold: #10-32 or M5 male stud In-Line: #10-32 or M5 female
Port, Outlet	#10-32 or M5 (in-line)
Response Time	5 to 10 ms (nominal) @ 25 psig (1.7 bar)
Voltage	12 or 24 VDC
Voltage Operating Range	90 to 150%
Wattage	0.67 watts (nominal)

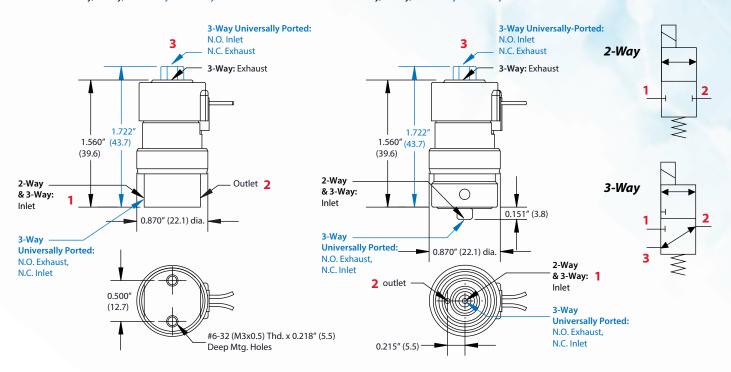
¹Minimum order quantity required

Inline Mount

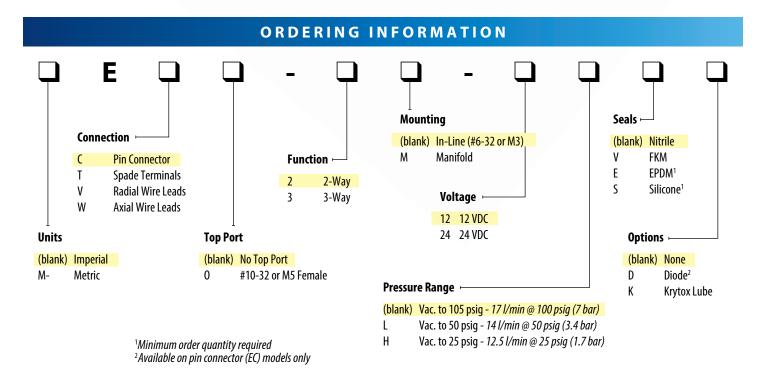
Manifold Mount

2-Way, 3-Way, and 3-Way Universally Ported

2-Way, 3-Way, and 3-Way Universally Ported



Dimensions shown are in inches (millimeters listed in parentheses). Visit clippard.com for more detailed 2D and 3D drawings.



Example Part Number:

EC-3-12

For more info, scan the QR code or visit clippard.com/link/ev-series



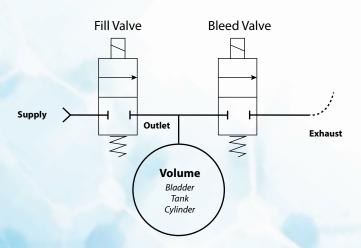
7

EFB SERIES FILL & BLEED CIRCUITS



A fill and bleed circuit is a combination of pneumatic valve components used to inflate a volume or apparatus in one controllable function and to release or vent pressure in a second controllable function. Fill and bleed circuits are commonly used in many applications where a particular pressure, firmness, or position can be controlled with the addition or venting of pressure.

- · Compact, robust design
- · Extremely fast response
- · Exceptionally long life
- · Multiple flow and pressure options













Material, Body	Black anodized aluminum
Connection	Wire leads
Medium	Clean, dry air and compatible gases
Mount	In-line or manifold

EV Valve Version (See EV Series for more specifications)

Material, Body	Nickel-plated brass, ENP carbon steel, nickel iron alloy, 300 series stainless steel
Material, Seals	Nitrile standard; FKM, EPDM¹ and silicone¹ available
Material, Spring	Nickel alloy
Material, Wetted	ENP brass, nickel alloy, stainless steel, ENP steel
Max. psig	105 (7.2 bar)
Operating Pressure	28" Hg to 25, 50, or 100 psig (1.7, 3.4, or 7 bar)
Operating Temp. Range	9 32 to 180°F (0 to 82°C)
Response Time	5 to 10 ms (nominal) @ 25 psig (1.7 bar)
Voltage Op. Range	90 to 150%
Wattage	0.67 watts (nominal)

DV Valve Version (See DV Series for more specifications)

More Details

Material, Body	Stainless steel
Material, Seals	Nitrile standard; FKM, EPDM and silicone available
Material, Spring	Stainless steel
Material, Wetted	Polyetherimide, stainless steel, PPS
Max. psig	100 (6.9 bar)
Operating Pressure	28" (71 cm) Hg vac. to 50 or 100 psig (3.4 or 7 bar)
Operating Temp. Ran	ge 32 to 130°F (0 to 54°C)
Response Time	10 to 15 ms
Voltage Op. Range	95 to 125%
Wattage	1.9 watts

clippard.com/link/efb

0.188" (4.8)

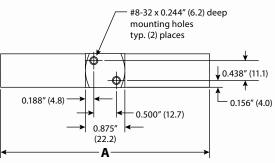


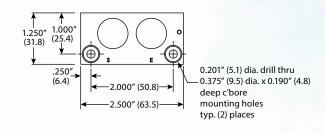
Version 1

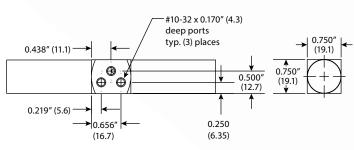
Manifold Manifold

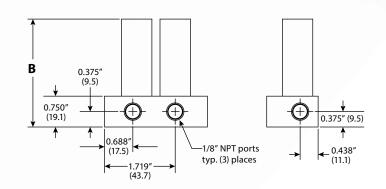


Version 2

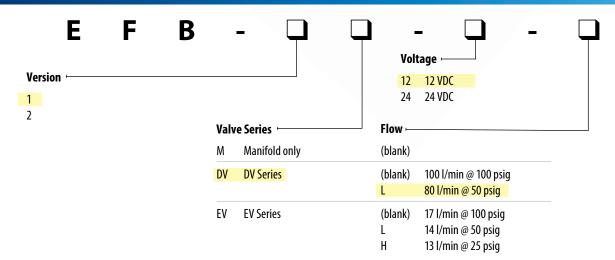








ORDERING INFORMATION



Example Part Number:

EFB-1DV-12-L

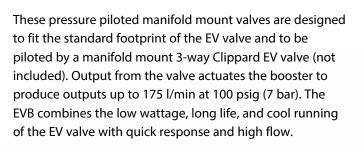
For more info, scan the QR code or visit clippard.com/link/efb



9

EV VALVE BOOSTERS









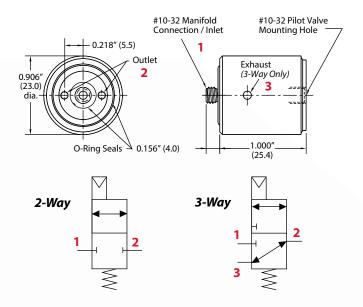




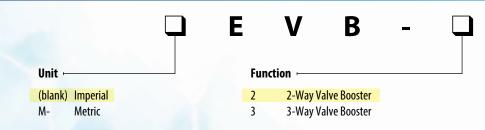


Function	2-way or 3-way normally-closed
Material, Body	Nickel-plated brass, acetal, stainless steel
Material, Seals	Nitrile
Max. Flow	176 l/min @ 100 psig (7 bar)
Medium	Air
Operating Pressure	20 to 150 psig (1.4 to 10.3 bar)
Ports	Inlet and outlet through manifold
Response Time	20 ms @ 20 psig (1.4 bar) 13 ms @ 100 psig (7 bar) nominal
Temperature Range	30 to 180°F (-1 to 82°C)
More Details	clippard.com/link/evb

Use only normally-closed 3-way pilot valves in conjunction with this booster.



ORDERING INFORMATION



Example Part Number:

EVB-2









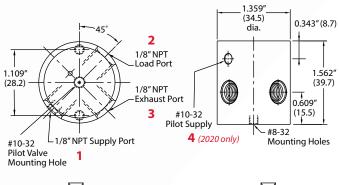


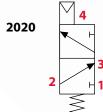


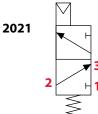
These pressure piloted valves are designed to be piloted by a manifold mount Clippard EV valve (not included). Output from the valve actuates the booster to produce outputs up to 620 l/min at 100 psig (7 bar). Combines low wattage, long life, and cool running of the EV valve with quick response and high flow. Available internally or externally piloted.

Function	3-way normally-closed
Material, Body	Anodized aluminum, stainless steel
Material, Seals	Nitrile
Max. Flow	620 l/min @ 100 psig (7 bar)
Medium	Air
Operating Pressure	30 to 100 psig (2 to 7 bar)
Pilot Pressure	60% of supply pressure
Ports	Inlet and outlet, exhaust 1/8" NPT; pilot supply on 2020 is #10-32 female
Response Time	20 ms
More Details	clippard.com/link/evb

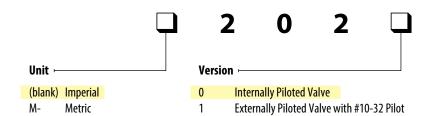
Use only normally-closed 3-way pilot valves in conjunction with these boosters.







ORDERING INFORMATION



Example Part Number: 2020

For more info, scan the QR code or visit clippard.com/link/efb



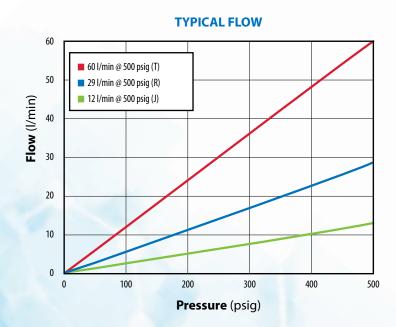
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HIGH PRESSURE EV SERIES



Clippard's EHV series are a high pressure version of the renowned EV series. They are precision-built 2-way control valves that accept low voltage, low current signals and convert them to high pressure (500 psig, 34.5 bar) pneumatic outputs. Like the orginal EV series, EHV series valves consume very little power and provide exceptionally long life. In addition, they are small in size, quiet, and produce very little heat. These features make them wellsuited for a wide range of applications across a broad spectrum of industries.











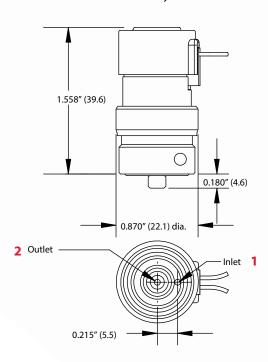


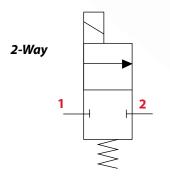
Connection	218 (12V), 864 (24V)
Connection	Pin connector, spade terminals, or radial wire leads
Current	0.055A (12V), 0.028A (24V)
Filtration	40 micron filter (recommended)
Function	2-way normally-closed (monodirectional)
Material, Body	Nickel alloy, stainless steel, ENP steel
Material, Seals	Nitrile standard; FKM and EPDM¹ available
Material, Spring	Nickel alloy
Material, Wetted	Nickel alloy, stainless steel, ENP steel
Max. Flow	12, 29, or 60 l/min @ 500 psig (34.5 bar)
Max. psig	500 (34.5 bar)
Medium	Clean, dry air and compatible gases
Mount	Manifold
Number of Ports	2
Operating Pressure	Vac. to 500 psig (34.5 bar)
Operating Range	90 to 150% of rated voltage
Operating Temp. Range	32 to 180°F (0 to 82°C)
Orifice	0.009", 0.013", or 0.020" (0.23, 0.33, or 0.51 mm)
Port, Inlet	#10-32 male or M5
Port, Outlet	#10-32 or M5 (in-line)
Response Time	5 to 10 ms (nominal)
Voltage	12 or 24 VDC
Voltage Operating Range	90 to 150%
Wattage	0.67 watts (nominal)
More Details	clippard.com/link/ehv-series

¹Minimum order quantity required

Manifold Mount

2-Way



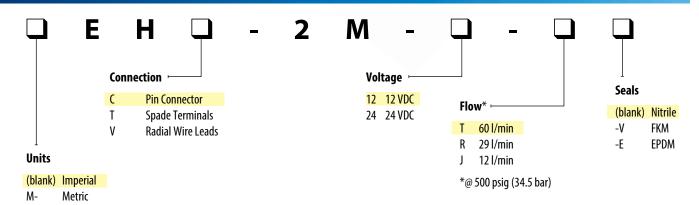


Dimensions shown are in inches (millimeters listed in parentheses). Visit clippard.com for more detailed 2D and 3D drawings.



- Extremely small dead volume
- · Low vibration and noise
- · Fast response time
- · Low energy consumption
- · Exceptional repeatability and reliability
- Compact and ideal for sub-assemblies
- 100% tested

ORDERING INFORMATION



Example Part Number:

EHC-2M-12-T

For more info, scan the QR code or visit clippard.com/link/ehv-series

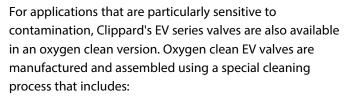


13

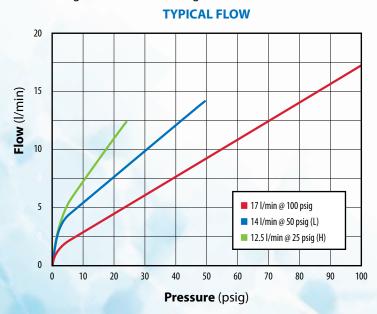
TDS EHV-01, Rev. 042324 (2/2) **877-245-6247** | clippard.com

OXYGEN CLEAN EV SERIES





- · Ultrasonic cleaning, assembly, inspection, and testing in one of Clippard's ISO 7 (class 10,000) rated clean rooms
- · All wetted parts cleaned to meet and/or exceed ASTM G93 Level E NVR and Level 500 Particulate and Fibers
- · No organic sealants, adhesives, or lubricants used in the manufacturing process
- Component parts lubricated with oxygen-compatible PFPE grease (only as needed for assembly)
- · Invididual testing and inspection utilizing compressed Nitrogen and ultra-violet light













Coil Resistance	218 (12V), 864 (24V)
Connection	Pin connector, spade terminals, radial wire leads or axial wire leads
Current	0.055A (12V), 0.028A (24V)
Cycle Life	>1,000,000,000 (ideal applications)
Filtration	40 micron filter (recommended)
Function	2-way normally-open or normally-closed; 3-way normally-open, normally-closed, or universally ported
Leak Rate	0.1 sccm
Material, Body	Nickel-plated brass, ENP carbon steel, nickel iron alloy, 300 series stainless steel
Material, Seals	FKM
Material, Spring	Nickel alloy
Material, Wetted	ENP brass, nickel alloy, stainless steel, ENP steel
Max. Flow	17 l/min @ 100 psig (7 bar), 14 l/min @ 50 psig (3.4 bar), or 12.5 l/min @ 25 psig (1.7 bar)
Max. psig	105 (7.2 bar)
Medium	Clean, dry air and compatible gases
Mount	In-line or manifold
Number of Ports	2 or 3
Operating Pressure	28" Hg to 25, 50, or 100 psig (1.7, 3.4, or 7 bar)
Operating Range	90 to 150% of rated voltage
Operating Temp. Range	32 to 180°F (0 to 82°C)
Orifice	0.060", 0.040", or 0.025" (1.52, 1.02, or 0.64 mm)
Port, Exhaust	#10-32 or M5
Port, Inlet	Manifold: #10-32 male or M5 In-Line: #10-32 female or M5
Port, Outlet	#10-32 or M5 (in-line)
Response Time	5 to 10 ms (nominal) @ 25 psig (1.7 bar)
Voltage	12 or 24 VDC
Voltage Operating Range	90 to 150%
Wattage	0.67 watts (nominal)
More Details	clippard.com/link/ev-series

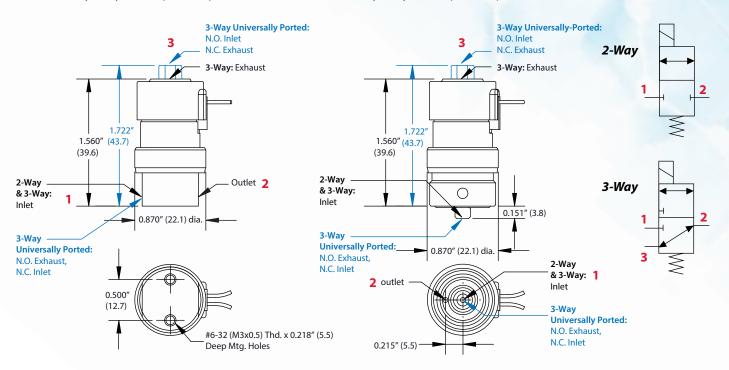
¹Minimum order quantity required

Inline Mount

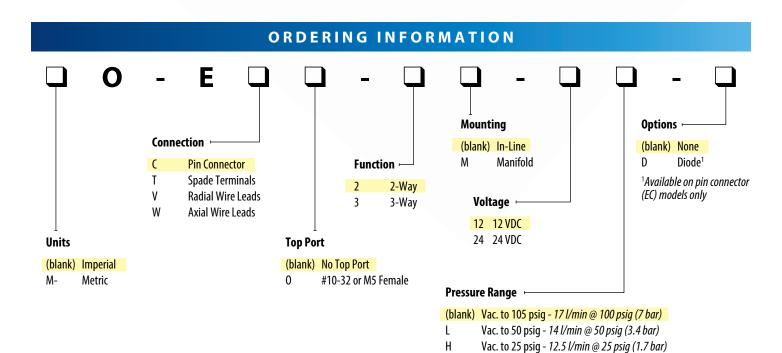
Manifold Mount

2-Way, 3-Way, and 3-Way Universally Ported

2-Way, 3-Way, and 3-Way Universally Ported



Dimensions shown are in inches (millimeters listed in parentheses). Visit clippard.com for more detailed 2D and 3D drawings.



Example Part Number:

0-EC-2-12

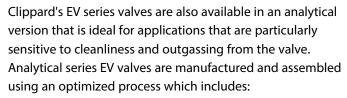
For more info, scan the QR code or visit clippard.com/link/ev-series



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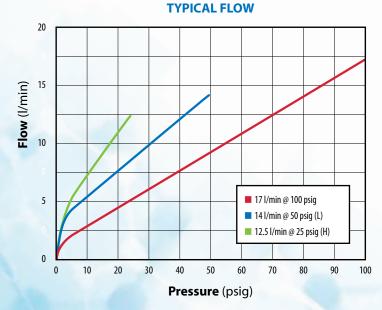
ANALYTICAL EV SERIES





- · Ultrasonic cleaning, assembly, inspection, and testing in one of Clippard's ISO 7 (class 10,000) rated clean rooms
- Cleaned to meet and/or exceed ASTM G93 Level E NVR and Level 500 Particulate and Fibers
- · No sealants used in the assembly
- · Parts lubed with isopropyl alcohol only for assembly
- · Individual testing with bottled nitrogen

Also available in high flow, oxygen clean, corrosionresistant, N.O. manifold, and proportional versions.











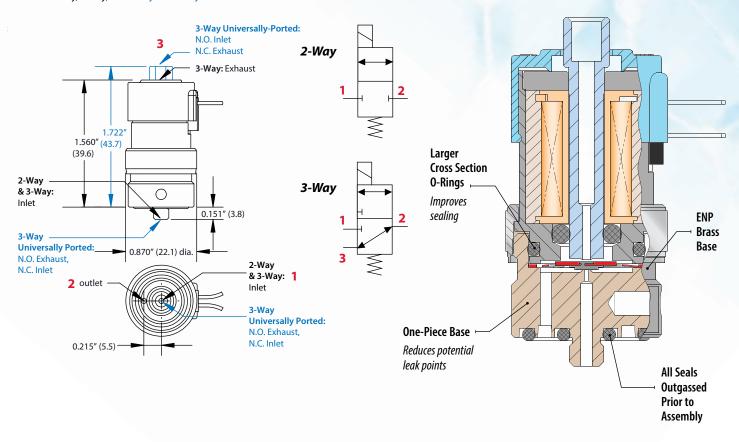


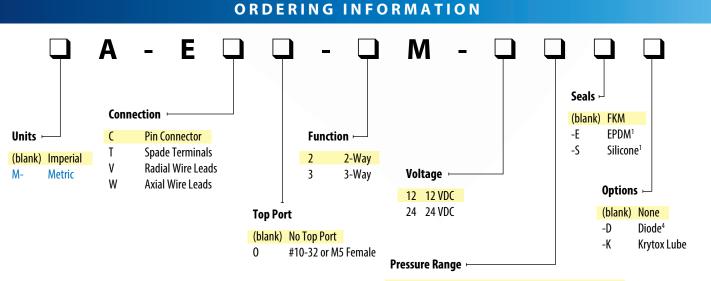
Coil Resistance	218 (12V), 864 (24V)
Connection	Pin connector, spade terminals, radial wire leads or axial wire leads
Current	0.055A (12V), 0.028A (24V)
Cycle Life	>1,000,000,000 (ideal applications)
Filtration (recommended)	40 micron filter (recommended)
Function	2-way normally-open or normally-closed; 3-way normally-open, normally-closed, or universally ported
Leak Rate	0.1 sccm
Material, Body	Nickel-plated brass, ENP carbon steel, nickel iron alloy
Material, Seals	FKM standard, EPDM¹ and silicone¹ available
Material, Spring	Nickel alloy
Material, Wetted	ENP brass, nickel alloy, ENP steel
Max. Flow	17 I/min @ 100 psig (7 bar), 14 I/min @ 50 psig (3.4 bar), or 12.5 I/min @ 25 psig (1.7 bar)
Max. psig	105 (7.2 bar)
Medium	Clean, dry air and compatible gases
Mount	Manifold
Number of Ports	2 or 3
Operating Pressure	28" Hg to 25, 50, or 100 psig (1.7, 3.4, or 7 bar)
Operating Range	90 to 150% of rated voltage
Operating Temp. Range	32 to 180°F (0 to 82°C)
Orifice	0.060", 0.040", or 0.025" (1.52, 1.02, or 0.64 mm)
Port, Exhaust	#10-32 or M5
Port, Inlet	Manifold: #10-32 male or M5 In-Line: #10-32 female or M5
Port, Outlet	#10-32 or M5 (in-line)
Response Time	5 to 10 ms (nominal) @ 25 psig (1.7 bar)
Voltage	12 or 24 VDC
Voltage Operating Range	90 to 150%
Wattage	0.67 watts (nominal)
More Details	clippard.com/link/ev-series

¹Minimum order quantity required

Manifold Mount

2-Way, 3-Way, and 3-Way Universally Ported





¹Minimum order quantity required ⁴Available on pin connector (EC) models only

Example Part Number: A-EC-2M-12

(blank) Vac. to 105 psig - 17 l/min @ 100 psig (7 bar)

- -L Vac. to 50 psiq 14 l/min @ 50 psiq (3.4 bar)
- -H Vac. to 25 psig 12.5 l/min @ 25 psig (1.7 bar)

For more info, scan the QR code or visit clippard.com/link/ev-series

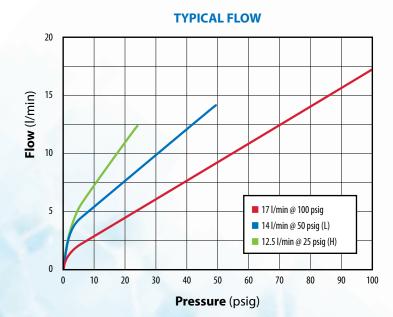


TDS A-EV-01, Rev. 040824 (2/2) 877-245-6247 | clippard.com 17

CORROSION RESISTANT EV SERIES



For applications that are susceptible to corrosion, the EV series is available in a special corrosion resistant version. The corrosion resistant series uses the same deceptively simple spider technology as the original EV series, but all the ENP steel components are swapped out for 430 stainless steel. The stainless steel components change the electrical characteristics by increasing the power consumption but do not affect the pressure or flow performance.













Coil Resistance	122 (12V), 486 (24V)
Connection	Pin connector, spade terminals, radial wire leads
Current	0.10A (12V), 0.05A (24V)
Cycle Life	>1,000,000,000 (ideal applications)
Filtration	40 micron filter (recommended)
Function	2-way normally-open or normally-closed; 3-way normally-open, normally-closed, or universally ported
Leak Rate	0.1 sccm
Material, Body	Nickel-plated brass, nickel iron alloy, 300 stainless steel, 430 stainless steel
Material, Seals	Nitrile standard; FKM, EPDM¹ and silicone¹ available
Material, Spring	ENP nickel alloy
Material, Wetted	ENP brass, ENP nickel alloy, 430 stainless steel
Max. Flow	17 I/min @ 100 psig (7 bar), 14 I/min @ 50 psig (3.4 bar), or 12.5 I/min @ 25 psig (1.7 bar)
Max. psig	105 (7.2 bar)
Medium	Clean, dry air and compatible gases
Mount	In-line or manifold
Number of Ports	2 or 3
Operating Pressure	28" Hg to 25, 50, or 100 psig (1.7, 3.4, or 7 bar)
Operating Range	90 to 110% of rated voltage
Operating Temp. Range	32 to 150°F (0 to 65°C)
Orifice	0.060", 0.040", or 0.025" (1.52, 1.02, or 0.64 mm)
Port, Exhaust	#10-32 or M5
Port, Inlet	Manifold: #10-32 male or M5 In-Line: #10-32 female or M5
Port, Outlet	#10-32 or M5 (in-line)
Response Time	5 to 10 ms (nominal) @ 25 psig (1.7 bar)
Voltage	12 or 24 VDC
Voltage Operating Range	90 to 110%
Wattage	1.2 watts (nominal)
More Details	clippard.com/link/ev-series

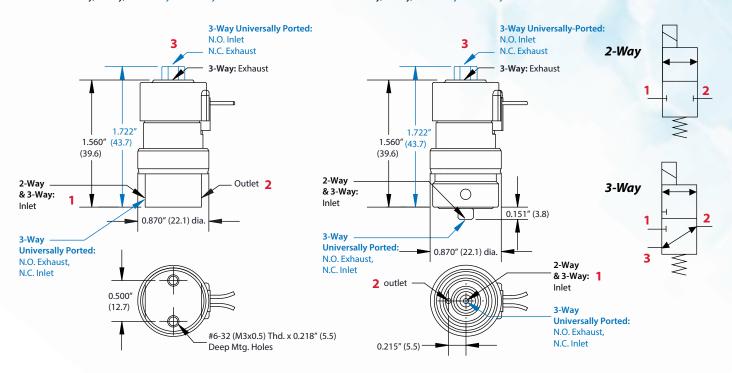
¹Minimum order quantity required

Inline Mount

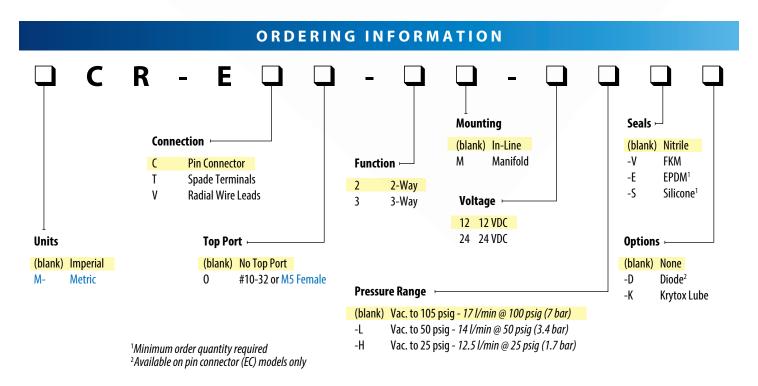
Manifold Mount

2-Way, 3-Way, and 3-Way Universally Ported

2-Way, 3-Way, and 3-Way Universally Ported



Dimensions shown are in inches (millimeters listed in parentheses). Visit clippard.com for more detailed 2D and 3D drawings.



Example Part Number:

CR-EC-2-12

For more info, scan the QR code or visit clippard.com/link/ev-series

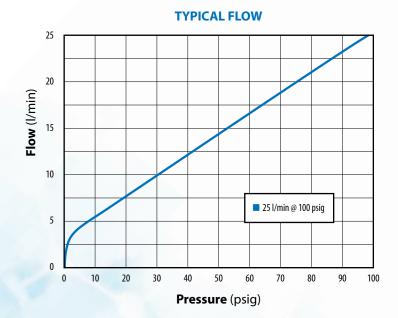


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N.O. MANIFOLD EV SERIES



Clippard's normally-open series EV valves are ideal for applications where a manifold mount normally-open valve is required. The normally-open EV valve is a unique valve that offers the same low power and long life as the original EV series in a package that provides normally-open functionality.











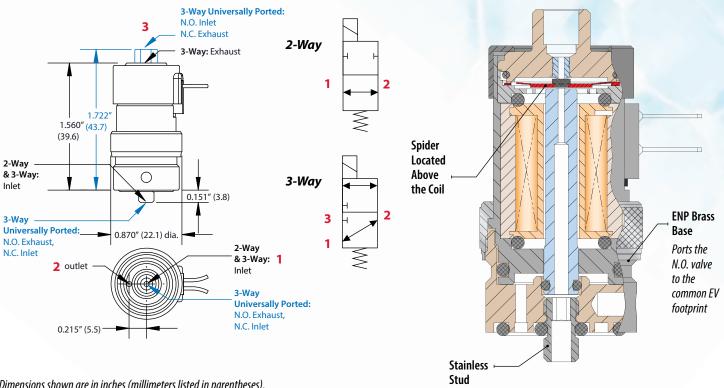


Coil Resistance	218 (12V), 864 (24V)
Connection	Pin connector, spade terminals or radial wire leads
Current	0.055A (12V), 0.028A (24V)
Cycle Life	>1,000,000,000 (ideal applications)
Filtration	40 micron filter (recommended)
Function	2-way normally-open or normally-closed; 3-way normally-open, normally-closed, or universally ported
Material, Body	Nickel-plated brass, ENP carbon steel, nickel iron alloy, 300 series stainless steel
Material, Seals	Nitrile standard; FKM, EPDM¹ and silicone¹ available
Material, Spring	Nickel alloy
Material, Wetted	ENP brass, nickel alloy, stainless steel, ENP steel
Max. Flow	25 l/min @ 100 psig (7 bar)
Max. psig	105 (7.2 bar)
Medium	Clean, dry air and compatible gases
Mount	Manifold
Number of Ports	2 or 3
Operating Pressure	100 psig (7 bar)
Operating Range	90 to 150% of rated voltage
Operating Temp. Range	32 to 180°F (0 to 82°C)
Orifice	0.040" (1.02 mm)
Port, Exhaust	#10-32 or M5
Port, Inlet	#10-32 male or M5
Port, Outlet	#10-32 or M5 (in-line)
Response Time	5 to 10 ms (nominal)
Voltage	12 or 24 VDC
Voltage Operating Range	90 to 150%
Wattage	0.67 watts (nominal)
More Details	clippard.com/link/ev-series

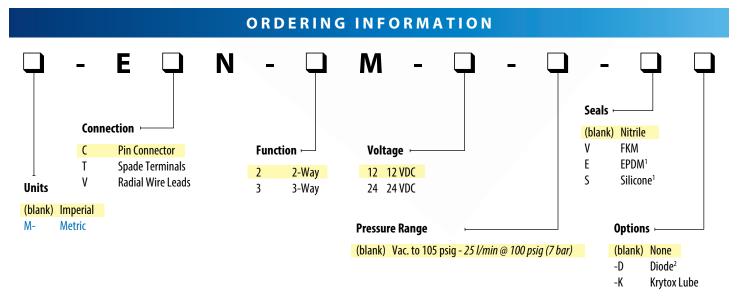
¹Minimum order quantity required

Manifold Mount

2-Way, 3-Way, and 3-Way Universally Ported



Dimensions shown are in inches (millimeters listed in parentheses). Visit clippard.com for more detailed 2D and 3D drawings.



¹Minimum order quantity required

Example Part Number:

ECN-2M-12

For more info, scan the QR code or visit clippard.com/link/ev-series



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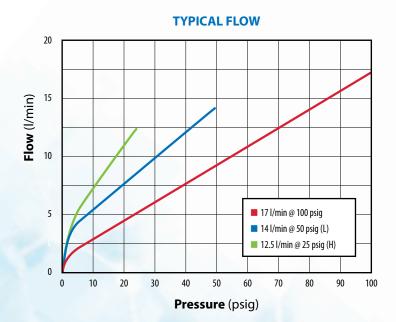
TDS EXN-01, Rev. 040824 (2/2) 877-245-6247 | clippard.com

²Available on pin connector (ECN) models only

ES SERIES ELECTRONIC VALVES



The ES series features large cross sectional o-rings, minimal leak points, and proven poppet designs. To reduce the possibility of contamination, all mounting hardware is located outside of the flow path and no internal parts are threaded during assembly. The ES has the best performance-to-price ratio for low leak valves. The compact footprint coupled with the long life, and exceptional leak resistance make the ES line suited to improve reliability in a wide range of applications.















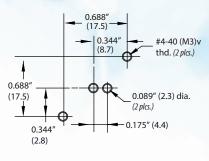
Coil Resistance	36 (6V), 144 (12V), 576 (24V)
Connection	Top terminal pins or radial wire leads
Current	017A (6V), 0.083A (12V), 0.042A (24V)
Cycle Life	Over 1 billion
Filtration (recommended)	40 micron
Function	2-way bidirectional; 3-way normally-closed or universally ported
Leak Rate	0.01 sccm
Material, Body	ENP carbon steel, nickel iron alloy, 300 series stainless steel, glass-filled nylon housing
Material, Seals	Nitrile standard; FKM and EPDM available
Material, Spring	Nickel alloy
Material, Wetted	Nickel alloy, stainless steel, ENP steel
Max. Flow	17 I/min @ 100 psig (7 bar) 14 I/min @ 50 psig (3.5 bar) 12.5 I/min @ 25 psig (1.7 bar)
Max. psig	105 (7.2 bar)
Medium	Clean, dry air and compatible gases
Mount	Manifold
Number of Ports	2 or 3
Operating Pressure	28" Hg Vac. to 25, 50, or 105 psig (700 mm Hg to 1.2, 3.4, or 7.2 bar)
Operating Temp. Range	32 to 150°F (0 to 65°C)
Port, Exhaust	3-Way: #10-32 or M5
Port, Inlet	No thread
Port, Outlet	No thread
Response Time	5 to 10 ms (nominal)
Thread	#4-40 or M3 (torque to 1-3 in-lb.)
Voltage	6, 12, or 24 VDC
Voltage Operating Range	90-120%
Wattage	1 watt (nominal)
More Details	clippard.com/link/es-series

¹Minimum order quantity required

Universally Ported Normally Closed 3-Way with 2-Way or 3-Way with **Terminal Pins or Wire Leads** Terminal Pins or Wire Leads 3 (3-Way only) 3 (3-Way only) 0.86" (21.8) 0.86" (21.8) 0.92" 0.92 (23.4) (23.4)**Exhaust Port** #10-32 or M5 (3-Way only) 0.35" (8.9) 0.35" (8.9) 0.20" (5.1) 0.98" (24.9) 0.98" (24.9) #4-40 (M3) #4-40 (M3) thd. thd. 0.13" (3.3) 0.13" (3.3) The stainless steel mounting screws are located outside the flow path and tightened to 1-3 in-lb. They require a T-10 Torx wrench. 0.175" (4.4) 0.175" (4.4) 2 0.69" (17.5)

-0.69" (17.5)

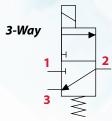
Mounting Interface



2-Way 1 2

Dimensions shown are in inches (millimeters listed in parentheses).

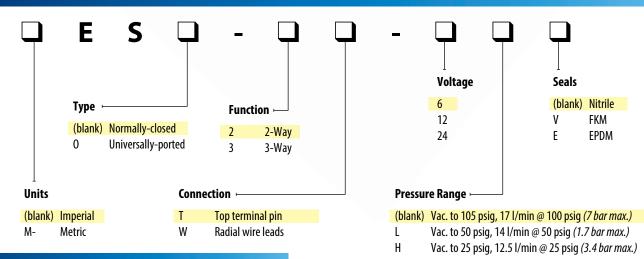
Visit clippard.com for more detailed 2D and 3D drawings.



- · Ideal for ultra low leak applications
- No threads in flow path
- · No anaerobic sealant
- Fast response—5 to 10 ms, nominal
- Close mounting—7/8" (22) on center, <1" (25.4) tall

ORDERING INFORMATION

0.69" (17.5)



ACCESSORIES

C3-RXB18 Wire lead connector, 18" (457 mm), TE Connectivity #5-103956-2

ESM-CP Cover plate for unused manifold station

MANIFOLDS

26090-1 Single-Station, Side Port26090-2 Single-Station, Bottom Port

26090-3 Double-Station

More manifolds available online

Example Part Number:

ES-2T-6

For more info, scan the QR code or visit clippard.com/link/es-series



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SV SERIES ELECTRONIC VALVES





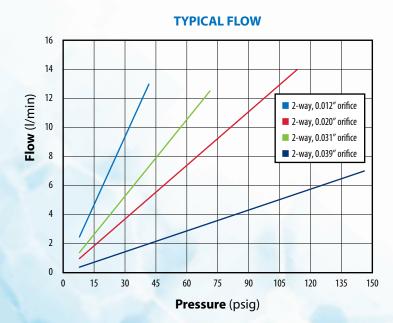






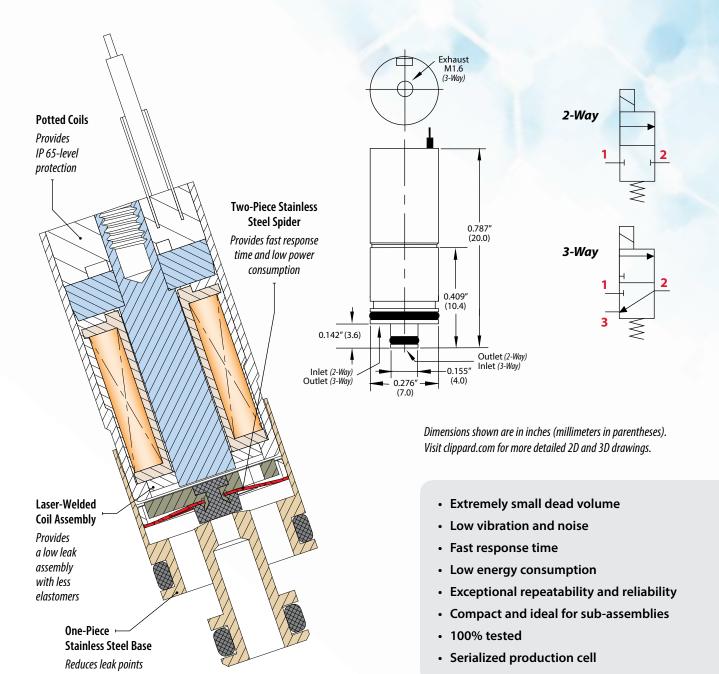
These direct actuating valves offer an extremely fast response time for accurate dosing of minute volumes. Due to very low moving weights, they are extremely quiet and emit very low vibration. Subminiature size and low energy consumption make them ideal for transportable and mobile systems, among others.

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

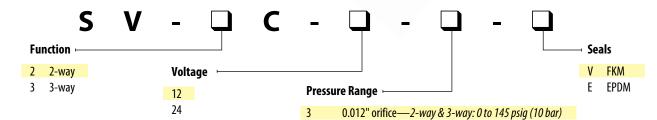


-	,
Connection	3" wire leads
Cycle Life	>100,000,000
Filtration	10 micron (recommended)
Function	2-way or 3-way, normally-closed
Leak Rate	1.0 sccm
Material, Body	Stainless steel
Material, Seals	FKM standard, EPDM available ¹
Material, Spring	302 stainless steel
Material, Wetted	303, 430, and 302 stainless steel
Max. Flow	7 l/min @ 145 psig (10 bar), 14 l/min @ 115 psig (8 bar), 12.5 l/min @ 72 psig (5 bar), 13 l/min @ 45 psig (3 bar)
Max. psig	145 (10 bar)
Medium	Air, water, gas, and compatible fluids
Mount	Cartridge
Number of Ports	2 or 3
Operating Pressure	0 to 145 psig (10 bar)
Operating Range	95-105% of rated power
Operating Temperature	41 to 122°F (5 to 50°C)
Orifice	0.012", 0.020", 0.031", 0.039" (0.3, 0.5, 0.8, 1.0 mm)
Port, Exhaust	M1.6
Port, Inlet	No thread
Port, Outlet	No thread
Response Time	<5 ms
Voltage	12 or 24 VDC
Wattage	0.5 to 1.2 watts
More Details	clippard.com/link/sv-series

¹Minimum order quantity required



ORDERING INFORMATION



Some configurations may not be valid or may have minimum order quantities. Consult the online configurator at clippard.com for more details.

ACCESSORIES

SVM-01* Single-station manifold, #10-32 M-SVM-01* Single-station manifold, M5 SVM-MC Mounting clip & screw

*Also available in stainless steel (add -SS to part number)

Example Part Number:

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8

10

SV-2C-12-3-V

For more info, scan the OR code or visit clippard.com/link/sv-series

0.020" orifice—2-way: 0 to 116 psig (8 bar); 3-way: 0 to 87 psig (6 bar)

0.031" orifice—2-way: 0 to 73 psig (5 bar); 3-way: 0 to 36 psig (2.5 bar)

0.039" orifice—2-way: 0 to 45 psig (3 bar); 3-way: 0 to 22 psig (1.5 bar)



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ST SERIES ELECTRONIC VALVES



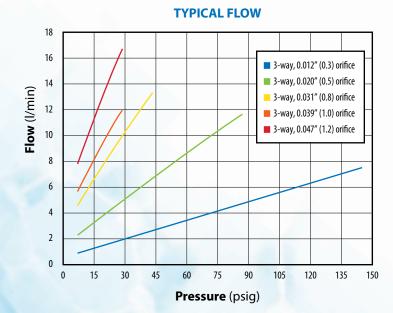








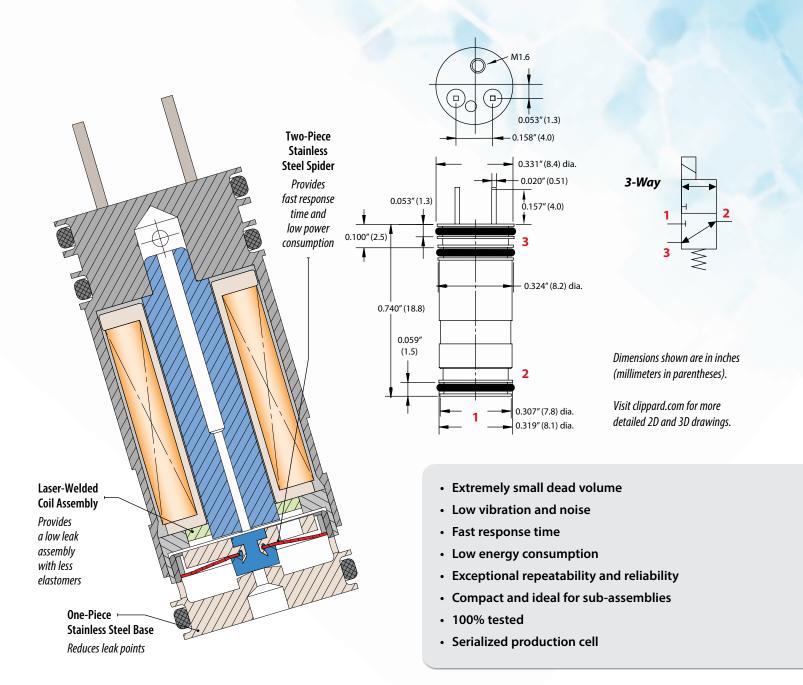
These direct actuating valves offer an extremely fast response time for accurate dosing of minute volumes in a compact, 8 mm cartridge package. Due to very low moving weights, they are extremely quiet and emit very low vibration. Subminiature size and low energy consumption make them ideal for many medical 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.



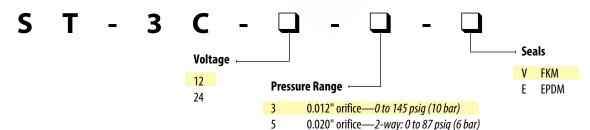
Connection	Terminal pins
Cycle Life	>100,000,000
Filtration	10 micron (recommended)
Function	3-way
Leak Rate	1.0 sccm
Material, Body	Stainless steel
Material, Seals	FKM standard, EPDM available ¹
Material, Spring	302 stainless steel
Material, Wetted	302 stainless steel
Max. Flow	7.5 l/min @ 145 psig (10 bar), 11.7 l/min @ 87 psig (6 bar), 16.7 l/min @ 45 psig (3 bar)
Max. psig	145 (10 bar)
Medium	Air, water, gas, and compatible fluids
Mount	Cartridge
Number of Ports	3
Operating Pressure	0 to 29 psig (2 bar) to 0 to 145 psig (10 bar)
Operating Range	95-105% of rated power
Operating Temperature	41 to 122°F (5 to 50°C)
Orifice	0.012" (0.3 mm), 0.017" (0.5 mm), 0.020" (0.8 mm), 0.031" (1.0 mm), 0.047" (1.2 mm)
Port, Exhaust	No thread
Port, Inlet	No thread
Port, Outlet	No thread
Response Time	<10 ms
Voltage	12 or 24 VDC
Wattage	0.5 to 1.0 watts
More Details	clippard.com/link/st-series

¹Minimum order quantity required





ORDERING INFORMATION



8

10

12

Some configurations may not be valid or may have minimum order quantities. Consult the online configurator at clippard.com for more details.

ACCESSORIES

STM-01* Single-station manifold, #10-32 M-STM-01* Single-station manifold, M5

*Also available in stainless steel (add -SS to part number)

Example Part Number:

ST-3C-12-3-V

For more info, scan the QR code or visit clippard.com/link/st-series

0.031" orifice—2-way: 0 to 44 psiq (3 bar)

0.039" orifice—*0 to 29 psig (2 bar)* 0.047" orifice—*0 to 29 psig (2 bar)*

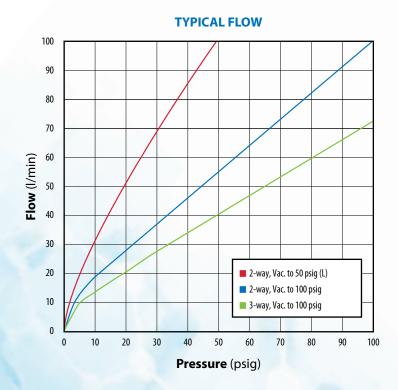


TDS ST-01, Rev. 040824 (2/2) **877-245-6247** | clippard.com 27

DV SERIES ELECTRONIC VALVES



Clippard 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 wellknown and trusted original EV line of Clippard spider 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.







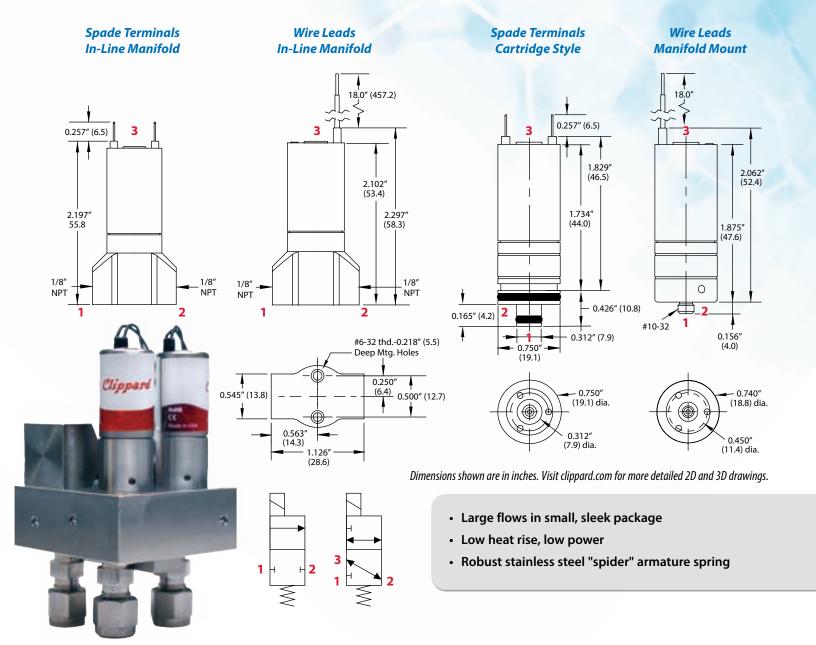


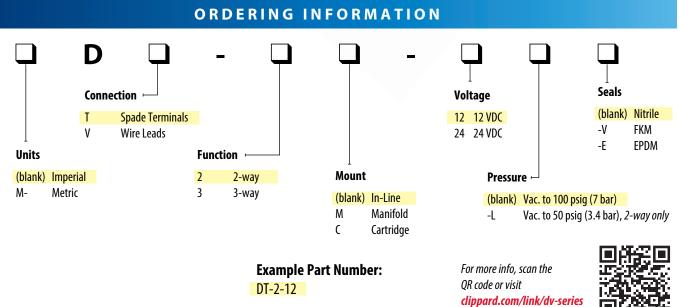




Coil Resistance Connection Spade terminals or wire leads Cycle Life Over 1 billion Filtration (recommended) 40 micron Function 2-way or 3-way normally-closed or normally-open; 3-way universally ported Material, Body Stainless steel Material, Seals Nitrile standard; FKM, EPDM and silicone avail Material, Spring Stainless steel Material, Wetted Polyetherimide, stainless steel, PPS Max. Flow 100 1/min @ 50 or 100 psig (3.4 or 7 bar), 70 1/min @ 100 psig (7 bar) Max. psig 100 (6.9 bar) Medium Compatible fluids and gases Mount In-line, manifold, or cartridge (inserts into 3/4) Number of Ports 2 or 3 Operating Pressure 28" (71 cm) Hg vac. to 50 or 100 psig (3.4 or 7 brown) Operating Temp. Range 32 to 130°F (0 to 54°C) Orifice 0.044", 0.052", 0.070" (1.1, 1.3, 1.8 mm) Port, Exhaust 3-Way: #10-32 or M5 Port, Inlet Manifold: #10-32 male or M5	
Cycle Life Over 1 billion Filtration (recommended) Function 2-way or 3-way normally-closed or normally-open; 3-way universally ported Material, Body Stainless steel Material, Seals Nitrile standard; FKM, EPDM and silicone avail Material, Spring Stainless steel Material, Wetted Polyetherimide, stainless steel, PPS Max. Flow 100 I/min @ 50 or 100 psig (3.4 or 7 bar), 70 I/min @ 100 psig (7 bar) Max. psig 100 (6.9 bar) Medium Compatible fluids and gases Mount In-line, manifold, or cartridge (inserts into 3/4) Number of Ports 2 or 3 Operating Pressure 28" (71 cm) Hg vac. to 50 or 100 psig (3.4 or 7 brown) Operating Temp. Range 32 to 130°F (0 to 54°C) Orifice 0.044", 0.052", 0.070" (1.1, 1.3, 1.8 mm) Port, Exhaust 3-Way: #10-32 or M5 Port, Inlet Manifold: #10-32 male or M5	
Filtration (recommended) 40 micron Function 2-way or 3-way normally-closed or normally-open; 3-way universally ported Material, Body Stainless steel Material, Seals Nitrile standard; FKM, EPDM and silicone avail Material, Spring Stainless steel Material, Wetted Polyetherimide, stainless steel, PPS Max. Flow 100 l/min @ 50 or 100 psig (3.4 or 7 bar), 70 l/min @ 100 psig (7 bar) Max. psig 100 (6.9 bar) Medium Compatible fluids and gases Mount In-line, manifold, or cartridge (inserts into 3/4) Number of Ports 2 or 3 Operating Pressure 28" (71 cm) Hg vac. to 50 or 100 psig (3.4 or 7 bar), 70 l/ming Temp. Range 32 to 130°F (0 to 54°C) Orifice 0.044", 0.052", 0.070" (1.1, 1.3, 1.8 mm) Port, Exhaust 3-Way: #10-32 male or M5	
Function 2-way or 3-way normally-closed or normally-open; 3-way universally ported Material, Body Stainless steel Material, Seals Nitrile standard; FKM, EPDM and silicone avail Material, Spring Stainless steel Material, Wetted Polyetherimide, stainless steel, PPS Max. Flow 100 l/min @ 50 or 100 psig (3.4 or 7 bar), 70 l/min @ 100 psig (7 bar) Max. psig 100 (6.9 bar) Medium Compatible fluids and gases Mount In-line, manifold, or cartridge (inserts into 3/4) Number of Ports 2 or 3 Operating Pressure 28" (71 cm) Hg vac. to 50 or 100 psig (3.4 or 7 bar) Operating Temp. Range 32 to 130°F (0 to 54°C) Orifice 0.044", 0.052", 0.070" (1.1, 1.3, 1.8 mm) Port, Exhaust 3-Way: #10-32 or M5 Port, Inlet Manifold: #10-32 male or M5	
Material, Body Stainless steel Material, Seals Nitrile standard; FKM, EPDM and silicone avail Material, Spring Stainless steel Material, Wetted Polyetherimide, stainless steel, PPS Max. Flow 100 I/min @ 50 or 100 psig (3.4 or 7 bar), 70 I/min @ 100 psig (7 bar) Max. psig 100 (6.9 bar) Medium Compatible fluids and gases Mount In-line, manifold, or cartridge (inserts into 3/4) Number of Ports 2 or 3 Operating Pressure 28" (71 cm) Hg vac. to 50 or 100 psig (3.4 or 7 brown) Operating Temp. Range 32 to 130°F (0 to 54°C) Orifice 0.044", 0.052", 0.070" (1.1, 1.3, 1.8 mm) Port, Exhaust 3-Way: #10-32 male or M5	
Material, SealsNitrile standard; FKM, EPDM and silicone availMaterial, SpringStainless steelMaterial, WettedPolyetherimide, stainless steel, PPSMax. Flow100 l/min @ 50 or 100 psig (3.4 or 7 bar), 70 l/min @ 100 psig (7 bar)Max. psig100 (6.9 bar)MediumCompatible fluids and gasesMountIn-line, manifold, or cartridge (inserts into 3/4)Number of Ports2 or 3Operating Pressure28" (71 cm) Hg vac. to 50 or 100 psig (3.4 or 7 braining Temp. Range)Operating Temp. Range32 to 130°F (0 to 54°C)Orifice0.044", 0.052", 0.070" (1.1, 1.3, 1.8 mm)Port, Exhaust3-Way: #10-32 or M5Port, InletManifold: #10-32 male or M5	
Material, SpringStainless steelMax. Flow100 l/min @ 50 or 100 psig (3.4 or 7 bar), 70 l/min @ 100 psig (7 bar)Max. psig100 (6.9 bar)MediumCompatible fluids and gasesMountIn-line, manifold, or cartridge (inserts into 3/4)Number of Ports2 or 3Operating Pressure28" (71 cm) Hg vac. to 50 or 100 psig (3.4 or 7 braining Temp. Range)Operating Temp. Range32 to 130°F (0 to 54°C)Orifice0.044", 0.052", 0.070" (1.1, 1.3, 1.8 mm)Port, Exhaust3-Way: #10-32 or M5Port, InletManifold: #10-32 male or M5	
Material, WettedPolyetherimide, stainless steel, PPSMax. Flow100 l/min @ 50 or 100 psig (3.4 or 7 bar), 70 l/min @ 100 psig (7 bar)Max. psig100 (6.9 bar)MediumCompatible fluids and gasesMountIn-line, manifold, or cartridge (inserts into 3/4)Number of Ports2 or 3Operating Pressure28" (71 cm) Hg vac. to 50 or 100 psig (3.4 or 7 b)Operating Temp. Range32 to 130°F (0 to 54°C)Orifice0.044", 0.052", 0.070" (1.1, 1.3, 1.8 mm)Port, Exhaust3-Way: #10-32 or M5Port, InletManifold: #10-32 male or M5	able
Max. Flow 100 l/min @ 50 or 100 psig (3.4 or 7 bar), 70 l/min @ 100 psig (7 bar) Max. psig 100 (6.9 bar) Medium Compatible fluids and gases Mount In-line, manifold, or cartridge (inserts into 3/4) Number of Ports 2 or 3 Operating Pressure 28" (71 cm) Hg vac. to 50 or 100 psig (3.4 or 7 b) Operating Temp. Range 32 to 130°F (0 to 54°C) Orifice 0.044", 0.052", 0.070" (1.1, 1.3, 1.8 mm) Port, Exhaust 3-Way: #10-32 or M5 Port, Inlet Manifold: #10-32 male or M5	
Max. psig 100 (6.9 bar) Medium Compatible fluids and gases Mount In-line, manifold, or cartridge (inserts into 3/4) Number of Ports 2 or 3 Operating Pressure 28" (71 cm) Hg vac. to 50 or 100 psig (3.4 or 7 b) Operating Temp. Range 32 to 130°F (0 to 54°C) Orifice 0.044", 0.052", 0.070" (1.1, 1.3, 1.8 mm) Port, Exhaust 3-Way: #10-32 or M5 Port, Inlet Manifold: #10-32 male or M5	
MediumCompatible fluids and gasesMountIn-line, manifold, or cartridge (inserts into 3/4)Number of Ports2 or 3Operating Pressure28" (71 cm) Hg vac. to 50 or 100 psig (3.4 or 7 b)Operating Temp. Range32 to 130°F (0 to 54°C)Orifice0.044", 0.052", 0.070" (1.1, 1.3, 1.8 mm)Port, Exhaust3-Way: #10-32 or M5Port, InletManifold: #10-32 male or M5	
Mount In-line, manifold, or cartridge (inserts into 3/4) Number of Ports 2 or 3 Operating Pressure 28" (71 cm) Hg vac. to 50 or 100 psig (3.4 or 7 to 50 or 100 psig	
Number of Ports 2 or 3 Operating Pressure 28" (71 cm) Hg vac. to 50 or 100 psig (3.4 or 7 b) Operating Temp. Range 32 to 130°F (0 to 54°C) Orifice 0.044", 0.052", 0.070" (1.1, 1.3, 1.8 mm) Port, Exhaust 3-Way: #10-32 or M5 Port, Inlet Manifold: #10-32 male or M5	
Operating Pressure 28" (71 cm) Hg vac. to 50 or 100 psig (3.4 or 7 b) Operating Temp. Range 32 to 130°F (0 to 54°C) Orifice 0.044", 0.052", 0.070" (1.1, 1.3, 1.8 mm) Port, Exhaust 3-Way: #10-32 or M5 Port, Inlet Manifold: #10-32 male or M5	bore,
Operating Temp. Range 32 to 130°F (0 to 54°C) Orifice 0.044", 0.052", 0.070" (1.1, 1.3, 1.8 mm) Port, Exhaust 3-Way: #10-32 or M5 Port, Inlet Manifold: #10-32 male or M5	
Orifice 0.044", 0.052", 0.070" (1.1, 1.3, 1.8 mm) Port, Exhaust 3-Way: #10-32 or M5 Port, Inlet Manifold: #10-32 male or M5	ar)
Port, Exhaust 3-Way: #10-32 or M5 Port, Inlet Manifold: #10-32 male or M5	
Port, Inlet Manifold: #10-32 male or M5	
Inline: 1/8" NPT or BSPT female	
Port, Outlet Manifold: No thread Inline: 1/8" NPT or BSPT female	
Response Time 10 to 15 ms	
Voltage 12 or 24 VDC	
Voltage Operating Range 95 to 125%	
Wattage 1.9 watts	
More Details clippard.com/link/dv-series	

¹Minimum order quantity required





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PRECISION ORIFICE FITTINGS





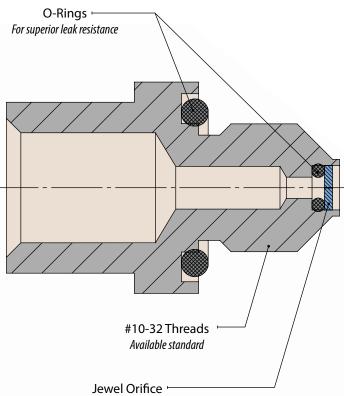
With tolerances of ± 0.0001 " (0.0025 mm), Clippard's precision orifice fittings are engineered for applications where minute flow adjustments are critical. Whether optimizing fuel injection in aerospace applications or fine-tuning fluid dynamics in industrial processes, or ensuring precise dosages in medical, analytical, and life science applications, these meticulously manufactured orifice fittings enable you to achieve the ultra-precise flow control your systems demand.

- Exceptional precision for unparalleled accuracy
- Tolerances of ±0.0001" (0.0025 mm)
- · Seamlessly integrates into existing systems
- · Orifice calibration available

Applications

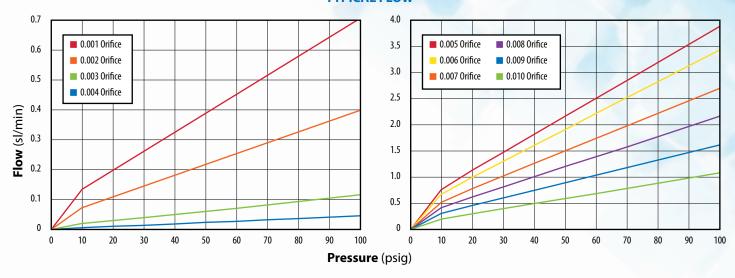
- · Precision flow control of gases or liquids
- Fuel injection systems
- · Dynamic industrial fluid processes
- Pneumatic or hydraulic circuits requiring accurate timing
- · Precision dosing for medical, analytical, and life science
- · Ultra high pressure waterjet
- · Liquid and gas control units
- Flow meters
- Inkjet printing

Filtration	5 micron filter (recommended)
Materials, Wetted	Stainless steel, FKM, and ruby or sapphire
Media	Air, liquid, and compatible gases
Mounting	Cartridge or in-line
Orifice	0.001" to 0.010" (0.03 to 0.25 mm)
Pressure, Max.	500 psig
Temperature Range	-20 to 400°F (-29 to 204°C)
Thread	#10-32 or M5
Tolerance	±0.0001" (0.0025 mm)
More Details	clippard.com/link/pof

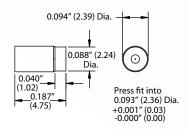


Ruby or sapphire—provides excellent resistance to heat, wear, and corrosion

TYPICAL FLOW

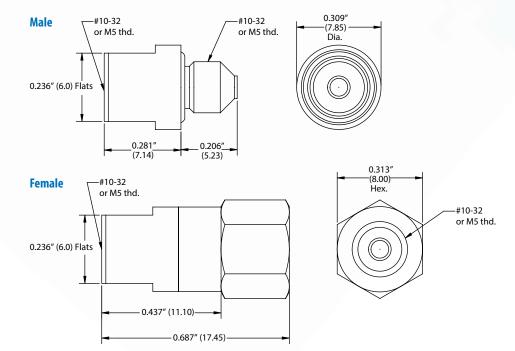


Cartridge

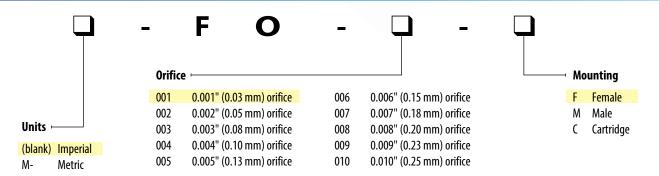


Dimensions shown are in inches (millimeters listed in parentheses).

Visit clippard.com for more detailed 2D and 3D drawings.



ORDERING INFORMATION



Example Part Number: FO-001-F

Contact Clippard for custom flow calibrations or to discuss other orifices, from 0.011" to 0.050" (0.28 to 1.27 mm).

For more info, scan the QR code or visit clippard.com/link/pof



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MANIFOLDS & ACCESSORIES

MANIFOLDS

ACCESSORIES

Valvo	Description		Part No.	Description	Part No.
valve	Description	Cinala Cidad 2 Station		Description	rait No.
		Single-Sided, 2-Station Single-Sided, 4-Station	15481-2 15481-4	Connector for ET Valve, 48"	ET-C48
ES SV -	Black anodized	Single-Sided, 6-Station	15481-6	Connector for ET Valve, 120"	ET-C120
	aluminum	Double-Sided, 8-Station	15482-8	Connector for EC & ET Valves, 18"	C2-RB18
		Double-Sided, 12-Station	15482-12	Connector for EC & El Valves, 120"	C2-RB120
EV		#10-32 Inlet, 1/8" NPT Outlet	15490-1		
		1/8" NPT Inlet, #10-32 Outlet	15490-1		
	Specialized	Dual Outlet—1/8" NPT Inlet, #10-32 Outlet	15490-2		
	(also available	#10-32 Inlet, 1/8" NPT Outlet	15490-3		
	in ENP brass and oxygen clean)	1/8" NPT Inlet, #10-32 Outlet	15491-2		
		#10-32 Inlet, #10-32 Outlet	15490-4		
		1/8" NPT Inlet, 1/8" NPT Outlet	15490-5		
		Single-Station, Side Port	26090-1		-
		Single-Station, Bottom Port	26090-2	Wire lead connector, 18"	C3-RXB18
		Double-Station	26090-3	(TE Connectivity #5-103956-2)	
	Black anodized	Dual Mount Single-Sided, 4-Station	26081-4		
ES	aluminum	Dual Mount Single-Sided, 6-Station	26081-6		
ES		Dual Mount Single-Sided, 8-Station	26081-8		
		Dual Mount Double-Sided, 12-Station	26082-12		
		Dual Mount Double-Sided, 16-Station	26082-16		
	Black anodized	Single-station manifold, #10-32	SVM-01		
SV -	aluminum	Single-station manifold, M5	M-SVM-01	Mounting clip & screw	SVM-MC
SV	Stainless steel	Single-station manifold, #10-32	SVM-01-SS		
		Single-station manifold, M5	M-SVM-01-SS		
	Black anodized	Single-station manifold, #10-32	STM-01		C3-RXB18
Stainle Stainle Black a alumin	aluminum	Single-station manifold, M5	M-STM-01		
	Stainless steel	Single-station manifold, #10-32	STM-01-SS		
	Stainless steel	Single-station manifold, M5	M-STM-01-SS		
	D. 1. 11. 1	2-Station, 1/8" NPT	15781-2		
	Black anodized aluminum	4-Station, 1/8" NPT	15781-4		
DV		6-Station, 1/8" NPT	15781-6		
DV	ENP brass (other materials also avaiable)	Manifold Mount	15490-5		
		Cartridge Manifold	15490-3		
		a. a.a.ge mainion	13 120 1		

Special Cleaning Capabilities

Valves intended for laboratories and other low-leak, high precision environments often require higher quality cleaning and handling to limit contamination. To accommodate this, Clippard's **Analytical Series** electronic valves are designed with special cleaning and assembly standards.

Similarly, valves intended for use in oxygen-rich environments also have special requirements. Due to the high flammability of oxygen, parts used in oxygen-rich environments are extremely sensitive to contamination. To accommodate this, Clippard's Oxygen-Clean Series electronic valves include strict cleaning standards to meet these requirements.





Do you have an application which requires special cleaning for its manufacture, assembly or testing? Clippard is able to provide a wide range of special cleaning, inspection, and testing options for components or assemblies.

Call 877-245-6247 today to discuss how we can accommodate your unique needs.

		Analytical	Oxygen Clean	Specials
	Designed with reduced leak paths	✓		✓
Valves	Ultrasonically cleaned, assembled, inspected, and tested in a clean room	✓	✓	✓
	No organic sealants, adhesives, or lubricants are used in the manufacturing process		✓	✓
_	Cleaned ultrasonically with high purity alcohol	✓		✓
Seals	Heated to outgas before assembly	✓	✓	√
Inspection	Cleaned parts inspected under white and ultraviolet light to insure the absence of particulate and hydrocarbon contamination	✓	✓	√
	Isopropyl alcohol, only as needed for assembly	✓		√
Lubricants	Oxygen compatible PFPE grease, only as needed for assembly		✓	√
	Valves are tested using high purity compressed nitrogen in place of shop air	✓	✓	✓
Testing	Valves are pressure decay leak tested	✓	N 66.48	✓
	Helium leak testing for ultra low leak requirements			√
Packaging	Finished valves are double bagged in heat sealed polyethylene bags to ensure cleanliness	✓	✓	✓

PRECISION CONTROL SOLUTIONS







ELECTRONIC VALVES

Clippard revolutionized the electronic valve market in the early 1970s with the EV series, which quickly become the industry standard for life and reliability. This unparalleled history in providing new and innovative products continues today, aided by advanced manufacturing machines and techniques.

clippard.com/link/elec-valves

PROPORTIONAL VALVES

For optimal controllability, proportional valves provide output proportional to input. These types of valves are ideal for applications which require variable flow control.

clippard.com/link/prop-valves

ISOLATION VALVES

Media isolation valves are used for a wide variety of applications, including those that require precise, repeatable dispensing for medical and analytical instrumentation. Choose from a large variety of sizes, configurations, materials, and options or contact us to discuss special customizations.

clippard.com/link/isolation-valves



CONTROL VALVES

From flow controls to needle valves, check valves, shuttle valves, exhaust valves and more, Clippard's control valves are available in a wide range configurations and functions. Sizes range from #3-56 and #10-32 through 3/8" NPT, for pressures up to 300 psig.

clippard.com/link/control-valves



DIRECTIONAL CONTROL VALVES

Clippard's line of mechanicallyoperated directional control valves includes toggle, stem, and lever valves as well as hand and foot-actuated pedal valves, palm button valves, and more. Choose from #3-56, #10-32, 1/8" NPT or 1/4" NPT ports.

clippard.com/link/directional-valves



AIR PILOT VALVES

The force output of an air pilot is much more powerful than the power produced from electrical solenoids or actuators. This makes air pilot valves ideal for applications where higher air flow and/or lower power are required, as well as when simplicity and cost savings are important.

clippard.com/link/air-pilot-valves







ELECTRONIC CONTROLS

Clippard's Cordis series is a highlycustomizable line of electronic controls designed to help close the loop around pressure and flow. With unparalleled accuracy and resolution, this line will elevate your application to the next level. Take control like never before with the Cordis.

clippard.com/link/elec-controls

PRESSURE REGULATORS

Regulators are offered in either relieving or non-relieving versions with a large variety of adjustment options and mounting styles to choose from. For even greater precision control, check out Clippard's Cordis line of electronic pressure regulators.

clippard.com/link/press-reg

CUSTOM SOLUTIONS

Clippard excels at designing special variations, modifications, and completely custom valves, fittings, and assemblies. If you need a product that fits your application perfectly, we will work with you to design or modify products to suit your exact needs.

clippard.com/link/custom



AIR PREP EQUIPMENT

Pneumatic applications with properly conditioned air will operate longer, cost less, and improve system efficiency. Clippard's line includes filters, regulators, lubricators, and combination units from #10-32 up to 1". A modular design and interconnecting hardware simplifies installation and maintenance.

clippard.com/link/air-prep



FITTINGS

Small in size but large in performance, Clippard precision fittings are designed to save you time, space, and money when designing versatile, efficient, trouble-free circuits. Choose from an endless variety in several different styles including push-quick, slip-on, barb, and quick connect.

clippard.com/link/fittings



HOSE & TUBING

Choose from a large variety of miniature hose and tubing, including copper and nylon tubing, flexible urethane and vinyl hose and tubing, and food-, medical-, or laboratorygrade silicone tubing.

clippard.com/link/tubing

Clippard products are distributed through our worldwide network of sales and engineering specialists. All of our representatives are stocking distributors and keep a variety of Clippard products on hand to fill your immediate needs. Each of our distributors are backed by our own large inventory to ensure quick delivery.

To locate your nearest distributor, call 877-245-6247 or visit clippard.com/distributors







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