



## NIV Series PTFE Media Isolation Valves



- Low power consumption
- Compact, lightweight design
- Bidirectional
- Minimal dead volume
- All wetted areas PTFE
- Ideal for use with corrosive media
- High cycle life
- Fast response time
- CE, RoHS Compliant
- Low leak design
- Custom body, materials, threads and pressures available
- Proudly made in the U.S.A. ISO 9001

The **Clippard NIV Series Media Isolation Valve** is a solenoid-operated device that uses a flexible diaphragm to isolate the actuation mechanism from the fluid path. Media isolation valves are commonly used for a wide variety of applications, including those that require precise, repeatable dispensing of media for analytical instrumentation. All wetted areas of the valve are PTFE, making this series ideal for use with corrosive media.

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 (only two for the 2-Way and three for the 3-Way), longer life and minimal dead volume. Choose from four orifice sizes available as 2-Way Normally-Closed, 2-Way Normally-Open, or 3-Way Selector/Diverter. Special configurations available by request.

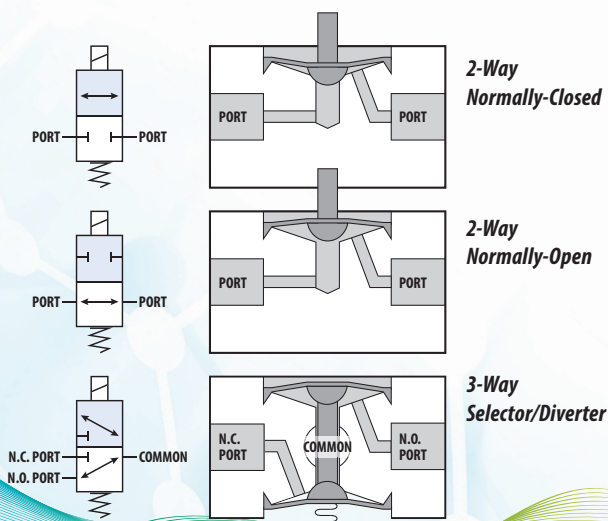
Industries and applications that commonly use these types of valves to isolate gas or liquid include: drug dispensing, laboratory equipment, analytical, chemical analysis, sampling, life science/biotech, genetic research, gas chromatography, spectrometry, DNA synthesizing, blood analyzing, printing, diagnostic equipment, fermentation, water treatment and more.

### SPECIFICATIONS

<b>Valve Type</b>	2-Way Normally-Closed, 2-Way Normally-Open, 3-Way Selector/Diverter
<b>Medium</b>	Air, water, gas, compatible fluids
<b>Max. Coil Temp. Rating</b>	158°F
<b>Operating Pressure</b>	Vacuum to 30 psig (additional options available*)
<b>Flow</b>	6 to 60 l/min. Air @ 30 psig
<b>Power Consumption</b>	1.0 to 7.2 watts
<b>Response Time</b>	5 to 20 ms typ.
<b>Electrical Connections</b>	18" wire leads
<b>Voltage</b>	12 or 24 VDC (additional options available*)
<b>Ports</b>	#10-32, 1/4-28, 1/8 NPS or Manifold
<b>Mounting</b>	#2-56, #4-40, or Manifold (0.118 thru hole)
<b>Wetted Materials</b>	PTFE (Peek, PCTFE & PPS available*)
<b>CE, RoHS Compliant</b>	

\* Contact Clippard for additional information

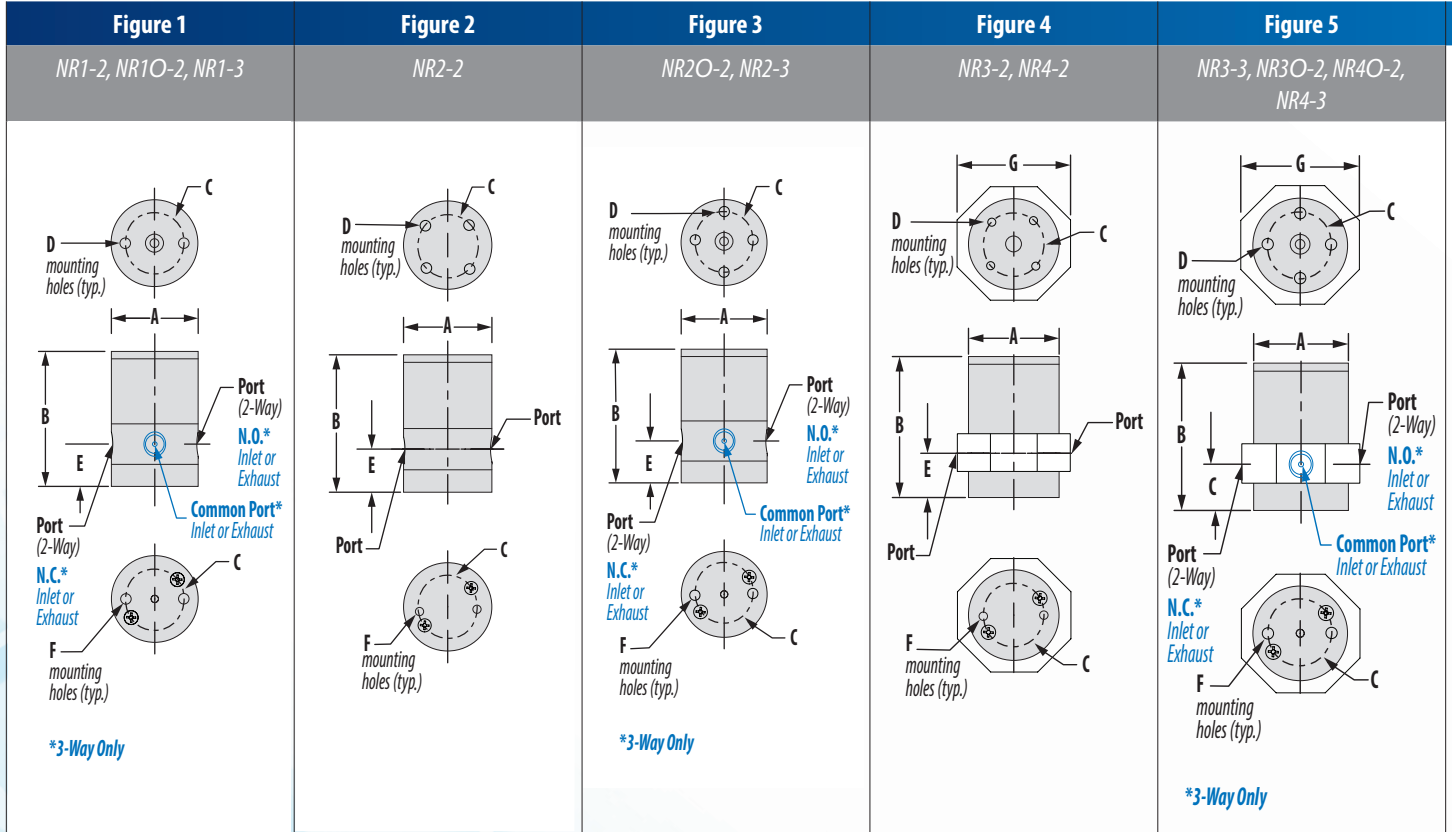
Read more online at [clippard.com/link/niv-tds](http://clippard.com/link/niv-tds)



## STANDARD VALVES

Type	Orifice	Flow @ 30 psig	Ports	Fig.	Standard Valve Dimensions—See Figures 1-5, below							Part Number	
					A	B	C	D	E	F	G	12 VDC	24 VDC
<b>2-Way, Normally-Closed</b>	0.040"	6 l/min	#10-32	1	0.750"	1.155"	0.500"	#2-56 x 0.094" deep	0.363"	#2-56 x 0.188" deep	n/a	NR1-2-12	NR1-2-24
	0.062"	16 l/min	1/4-28	2	1.000"	1.488"	0.687"	#4-40 x 0.125" deep	0.450"	#4-40 x 0.250" deep	n/a	NR2-2-12	NR2-2-24
	0.093"	38 l/min	1/4-28	4	1.250"	1.863"	0.880"		1.500"		NR3-2-12	NR3-2-24	
	0.156"	58 l/min	1/8 NPS	4	1.500"	2.088"	1.125"	0.562"	1.750"	NR4-2-12	NR4-2-24		
<b>2-Way, Normally-Open</b>	0.040"	6 l/min	#10-32	1	0.750"	1.163"	0.500"	#2-56 x 0.094" deep	0.363"	#2-56 x 0.188" deep	n/a	NR1O-2-12	NR1O-2-24
	0.062"	16 l/min	1/4-28	3	1.000"	1.493"	0.687"	#4-40 x 0.125" deep	0.450"	#4-40 x 0.250" deep	n/a	NR2O-2-12	NR2O-2-24
	0.093"	38 l/min	1/4-28	5	1.250"	1.814"	0.884"		1.500"		NR3O-2-12	NR3O-2-24	
	0.156"	58 l/min	1/8 NPS	5	1.500"	2.039"	1.125"	0.562"	1.750"	NR4O-2-12	NR4O-2-24		
<b>3-Way, Selector/Diverter</b>	0.040"	6 l/min	#10-32	1	0.750"	1.161"	0.500"	#2-56 x 0.094" deep	0.363"	#2-56 x 0.188" deep	n/a	NR1-3-12	NR1-3-24
	0.062"	16 l/min	1/4-28	3	1.000"	1.492"	0.687"	#4-40 x 0.125" deep	0.450"	#4-40 x 0.250" deep	n/a	NR2-3-12	NR2-3-24
	0.093"	28 l/min	1/4-28	5	1.250"	1.814"	0.884"		1.500"		NR3-3-12	NR3-3-24	
	0.156"	58 l/min	1/8 NPS	5	1.500"	2.039"	1.125"	0.562"	1.750"	NR4-3-12	NR4-3-24		

## STANDARD VALVE DRAWINGS



## MANIFOLD VALVES

Fig.	Manifold Dimensions—See Figures 6-8, below								Part Number	
	A	B	C	D	E	F	G	H	12 VDC	24 VDC
6	0.750"	1.154"	0.362"	1.250"	0.875"	0.875"	0.188"	0.438"	NR1-2M-12	NR1-2M-24
7	1.000"	1.487"	0.450"	1.250"	1.125"	1.000"	0.250"	0.500"	NR2-2M-12	NR2-2M-24
7	1.250"	1.862"	0.500"	1.625"	1.375"	1.250"	0.313"	0.625"	NR3-2M-12	NR3-2M-24
7	1.500"	2.087"	0.563"	1.875"	1.625"	1.500"	0.375"	0.750"	NR4-2M-12	NR4-2M-24
6	0.750"	1.162"	0.362"	1.250"	0.875"	0.875"	0.188"	0.438"	NR1O-2M-12	NR1O-2M-24
8	1.000"	1.491"	0.450"	1.250"	1.125"	1.000"	0.250"	0.500"	NR2O-2M-12	NR2O-2M-24
8	1.250"	1.813"	0.500"	1.625"	1.375"	1.250"	0.313"	0.625"	NR3O-2M-12	NR3O-2M-24
8	1.500"	2.038"	0.563"	1.875"	1.625"	1.500"	0.375"	0.750"	NR4O-2M-12	NR4O-2M-24
6	0.750"	1.162"	0.362"	1.250"	0.875"	0.875"	0.188"	0.438"	NR1-3M-12	NR1-3M-24
8	1.000"	1.491"	0.450"	1.250"	1.125"	1.000"	0.250"	0.500"	NR2-3M-12	NR2-3M-24
8	1.250"	1.813"	0.500"	1.625"	1.375"	1.250"	0.313"	0.625"	NR3-3M-12	NR3-3M-24
8	1.500"	2.038"	0.563"	1.875"	1.625"	1.500"	0.375"	0.750"	NR4-3M-12	NR4-3M-24

## MANIFOLD VALVE DRAWINGS

Figure 6 (3-Way)	Figure 7 (2-Way N.C.)	Figure 8 (2-Way N.O.)
NR1-3M, NR2-3M, NR3-3M, NR4-3M	NR1-2M, NR2-2M, NR3-2M, NR4-2M	NR1O-2M, NR2O-2M, NR3O-2M, NR4O-2M

## ORDERING INFORMATION

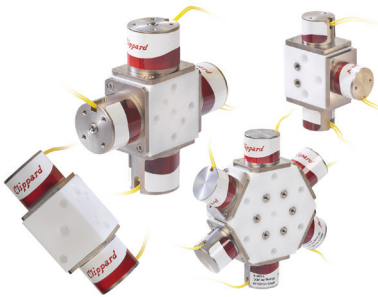
Orifice / Ports	Type	Mounting	Voltage	Operating Pressure
<b>NR1</b> 0.040" / #10-32	<b>-2</b> 2-Way, Normally-Closed	<b>(blank)</b> Std. (threaded)	<b>-12</b> 12 VDC	<b>(blank)</b> Vac. to 30 psig
<b>NR2</b> 0.062" / 1/4-28	<b>0-2</b> 2-Way, Normally-Open	<b>M</b> Manifold	<b>-24</b> 24 VDC	
<b>NR3</b> 0.095" / 1/4-28	<b>-3</b> 3-Way, Selector / Diverter			
<b>NR4</b> 0.156" / 1/8" NPS				

**Example Part No.** NR20-2-12

On-Line Configurator Available

## ALSO AVAILABLE

### Solenoid-Operated PTFE Media Gradient Isolation Valves

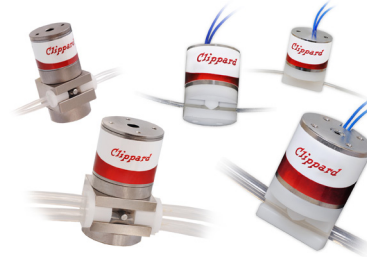


Mixing isolation valves combine multiple solenoids into a single compact unit. The valve incorporates up to six separate sources of media into one stream that is integral to a single block. They feature independent

inlets and one common outlet, or one common inlet and multiple independent outlets. Compatible with corrosive and aggressive medium, these valves are useful for solvent selection, stream splitting, flushing, mixing, diverting, blending, indexing and other automated applications.

Read more online at [clippard.com/link/nivg](http://clippard.com/link/nivg)

### Solenoid-Operated & Pneumatic Pinch Valves



Pinch valves are an excellent alternative to traditional mechanical valves when media contamination is a concern, as they interact with medical grade tubing, and never touch the material being

dispensed. Clippard's compact NPV series offers four styles with multiple size, tubing and pressure options making them ideal for pharmaceutical, laboratory, wastewater, medical, and chemical industries, among others. Features include high flow, low power consumption, high cycle life, quick response and more.

Read more online at [clippard.com/link/npv](http://clippard.com/link/npv)

## ADDITIONAL RESOURCES AVAILABLE ONLINE AT CLIPPARD.COM

- 2D & 3D files
- Product configurators
- Calculators
- Videos, whitepapers & more
- Download Clippard's Full-Line Product Catalog
- Locate your nearest Clippard Distributor
- Request Technical Help

## PROFESSIONALLY DISTRIBUTED BY:



877-245-6247 | [clippard.com](http://clippard.com)

CLIPPARD INSTRUMENT LABORATORY, INC. • ISO 9001 • TDS 1.19 V.2  
For warranty and disclaimer information, visit [clippard.com/warranty](http://clippard.com/warranty)

