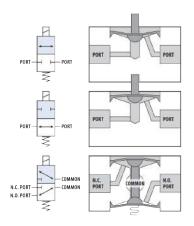


# PTFE MEDIA **ISOLATION VALVES**



# 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 analysing, printing, diagnostic equipment, fermentation, water treatment and more.

#### **SPECIFICATIONS**

- → Valve Type: 2-Way Normally-Closed, 2-Way Normally-Open,
- → 3-Way Selector/Diverter
- → Medium: Air, water, gas, compatible fluids
- → Max. Coil Temp. Rating: 158°F
- → Operating Pressure: Vacuum to 30 psig
- → Flow: 10 to 60 L/min
- → Max. Pressure Range: 28" Hg to 30 psig

- → Power Consumption: 1.0 to 7.2 watts
- → Response Time: 5 to 20 ms
- → Electrical Connections: 18" wire leads
- → Voltage: 12 or 24 VDC
- → Ports: #10-32, 1/4-28 or 1/8
- → Mounting: #2-56, #4-40, or Manifold Mount
- → Wetted Materials: PTFE

- 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**
- Proudly made in the U.S.A.
- ISO 9001:2015

#### **STANDARD VALVES**

			Pi-	Standard Valve Dimensions—See Figures 1-6, below									Part Number	
Configuration	Orifice	Ports	Fig.	A	В	C	D	E	F	G	Н	12 VDC	24 VDC	
2-Way, Normally-Closed	0.040"	#10-32	1	0.750"	1.155"	0.500"	#2-56 x 0.094" deep	0.363"	0.500"	#2-56 x 0.188" deep	n/a	NR1-2-12	NR1-2-24	
	0.062"	1/4-28	2	1.000"	1.488"	0.486"		0.450"	0.687"	#4-40 x 0.250" deep	n/a	NR2-2-12	NR2-2-24	
	0.093"	1/4-28	4	1.250"	1.863"	0.626"	#4-40 x 0.125" deep	0.500"	0.884"		1.500	NR3-2-12	NR3-2-24	
	0.156"	1/8 NPS	4	1.500"	2.088"	0.796"	0.125 чеср	0.562"	1.125"		1.750	NR4-2-12	NR4-2-24	
	0.040"	#10-32	1	0.750"	1.163"	0.500"	#2-56 x 0.094 deep	0.363"	0.500"	#2-56 x 0.188" deep	n/a	NR1O-2-12	NR1O-2-24	
2-Way,	0.062"	1/4-28	3	1.000"	1.493"	0.486"		0.450"	0.687"	#4-40 x 0.250" deep	n/a	NR2O-2-12	NR2O-2-24	
Normally-Open	0.093"	1/4-28	5	1.250"	1.814"	0.884"	#4-40 x 0.125" deep	0.500"	0.884"		1.500	NR3O-2-12	NR3O-2-24	
	0.156"	1/8 NPS	5	1.500"	2.039"	1.125"		0.562"	1.125"		1.750	NR4O-2-12	NR4O-2-24	
	0.040"	#10-32	1	0.750"	1.161"	0.500"	#2-56 x 0.094" deep	0.363"	0.500"	#2-56 x 0.188" deep	n/a	NR1-3-12	NR1-3-24	
3-Way,	0.062"	1/4-28	3	1.000"	1.492"	0.687"		0.450"	0.687"	#4-40 x 0.250" deep	n/a	NR2-3-12	NR2-3-24	
Selector/Diverter	0.093"	1/4-28	5	1.250"	0.884"	0.884"	#4-40 x 0.125" deep	0.500"	0.884"		1.500	NR3-3-12	NR3-3-24	
	0.156"	1/8 NPS	5	1.500"	1.125"	1.125"	ones deep	0.562"	1.125"	o.zoo ucep	1.750	NR4-3-12	NR4-3-24	

## **STANDARD VALVE DRAWINGS**

Figure 1	Figure 2	Figure 3	Figure 4	Figure 5
NR1-2, NR1O-2, NR1-3	NR2-2	NR2O-2, NR2-3	NR3-2, NR4-2	NR3-3, NR4-3, NR3O-2, NR4O-2
D mounting holes (typ.)	mounting holes (typ.)	D mounting holes (typ.)	D mounting holes (typ.)	D mounting holes (typ.)
Port (2-Way) N.O.* Inlet or Exhaust N.O.* Inlet or Exhaust G mounting holes (typ.)  *3-Way Only	Port  Report  Report	Port (2-Way) N.O.* Inlet or Exhaust N.O.* Inlet or Exhaust G mounting holes (typ.) *3-Way Only	Port  B  Fort  G  mounting holes (typ.)	Port (2-Way) N.O.* Inlet or Exhaust N.O.* Inlet or Exhaust G mounting holes (typ.) *3-Way Only

#### **INTEGRATED MANIFOLD VALVES**

-		Integrated Manifold Dimensions—See Figures 1-6, below												Part Number	
Fig.	A	В	С	D	E	F	G	Н	1	J	K	L	М	12 VDC	24 VDC
6	0.750"	1.155"	0.354"	#2-56 x 0.094 deep	0.362"	0.354"	#2-56 x 0.180" deep	1.250"	0.875"	0.875"	0.625"	0.438"	-	NR1-2M-12	NR1-2M-24
7	1.000"	1.487"	0.687"		0.450"	0.486"		1.250"	1.125"	1.000"	0.750"	0.500"	_	NR2-2M-12	NR2-2M-24
7	1.250"	1.862"	0.885"	#4-40 x 0.125 deep	0.500"	0.625"	#4-40 x 0.250"deep	1.625"	1.625"	1.250"	0.938"	0.625"	_	NR3-2M-12	NR3- 2M-24
7	1.500"	2.087"	1.126"		0.563"	0.795"		1.875"	1.875"	1.500"	1.125"	0.750"	_	NR4-2M-12	NR4-2M-24
6	0.750"	1.163"	0.354"	#2-56 x 0.094 deep	0.362"	0.354"	#2-56 x 0.180" deep	1.250"	0.875"	0.875"	0.625"	0.438"	-	NR1O-2M-12	NR1O-2M-24
9	1.000"	1.491"	0.486"		0.450"	0.486"		1.250"	1.125"	1.000"	0.750"	0.500"	=	NR2O-2M-12	NR2O-2M-24
9	1.250"	1.813"	0.625"	0.125 deep	0.500"	0.625"	#4-40 x 0.250" deep	1.625"	1.625"	1.250"	0.938"	0.625"	_	NR3O-2M-12	NR3O-2M-24
9	1.500"	2.038"	0.795"		0.563"	0.795"		1.875"	1.875"	1.500"	1.125"	0.750"	-	NR4O-2M-12	NR4O-2M-24
6	0.750"	1.162"	0.354"	#2-56 x 0.094 deep	0.362"	0.500"	#2-56 x 0.180" deep	1.250"	0.875"	0.875"	0.625"	0.438"	0.250"	NR1-3M-12	NR1-3M-24
8	1.000"	1.491"	0.486"		0.450"	0.486"		1.250"	1.125"	1.000"	0.750"	0.500"	0.250"	NR2-3M-12	NR2-3M-24
8	1.250"	1.813"	0.625"	#4-40 x 0.125 deep	0.500"	0.625"	#4-40 x 0.250" deep	1.625"	1.625"	1.250"	0.938"	0.625"	0.313"	NR3-3M-12	NR3-3M-24
8	1.500"	2.038"	0.795"	чеер	0.500"	0.795"		1.875"	1.875"	1.500"	1.125"	0.750"	0.375	NR4-3M-12	NR4-3M-24

## **INTEGRATED MANIFOLD VALVE DRAWINGS**

Figure 6	Figure 7	Figure 8	Figure 9
NR1-2M, NR1O-2M, NR1-3M	NR2-2M, NR3-2M, NR4-2M	NR2-3M, NR3-3M, NR4-3M	NR2O-2M, NR3O-2M, NR4O-2M
D mounting holes (typ.)	D mounting holes (typ.)	D mounting holes (typ.)	mounting holes (typ.)
N.C. (3-Way Only)  N.C. (3-Way Only)	O.118"  thru  N.C.  E  Common Port	O.118" N.O.  B  Common Port	0.118" -N.O. B
G F F F F F	G F F F F F F F F F F F F F F F F F F F	G mounting holes (typ.)	G F F F F F F F F F F F F F F F F F F F