

# NYLON & PVC VALVES

## WASTEWATER DIVISION



**Nylon Valve**



**PVC Valve**



**6" PVC Valve**



**1" Electric 2-Way Throttling Valve**



**323 Electric Valve with Flow Control**

*High Flow, Low Friction Loss and Minimum Servicing for a Broad Range of Applications*

### Applications

- Headwork assemblies for use in advanced treatment wastewater drip dispersal systems
- Ideal for water control in all piping networks
- Above or below grade installations
- Reclaimed/reuse applications including municipally treated wastewater designated for irrigation
- Remote control irrigation for landscape, wastewater and industrial systems
  - master valves
  - automated or manual operations

#### Nylon Valves:

- Ideal for mild corrosive and mild acidity levels in the water

#### PVC Valves:

- Ideal for higher corrosive and acidity levels in the water

### Features/Benefits

- Very low friction loss
- With a minimum of parts, Netafim USA valves are the simplest in the industry to operate and maintain:
  - Structural simplicity
  - One diaphragm for all pressure ranges
  - Minimum maintenance, maximum dependability
  - Low cost ancillary components
  - Light-weight and easy to install
- Choice of slip or threaded PVC connections make installation quick and easy
- Nylon valves are available with a throttling feature for flow control
- Electric valves are available in normally open or normally closed configurations
- Nuts, bolts and washers are used to assemble the bonnet to the body, instead of self-tapping screws, prevents stripping the body if repairs are necessary

### Specifications

#### Nylon Valve Operating Pressure:

- Maximum pressure: 145 psi (10 bar)
- Minimum pressure: 8 psi (0.6 bar)

#### 3" and 4" PVC Valve Operating Pressure:

- Maximum pressure: 115 psi (8 bar)
- Minimum pressure: 8 psi (0.6 bar)

#### 6" PVC Valve Operating Pressure:

- Maximum pressure: 145 psi (10 bar)
- Minimum pressure: 8 psi (0.6 bar)

### Materials

#### Nylon Valves:

Body, Bonnet and Seat: 30% Glass Reinforced Polyamide (GRP)

#### PVC Valves:

Body - uPVC

#### Nuts, bolts and washers:

Zinc coated steel/BS 5216

#### Spring:

Stainless steel 302

#### Diaphragm Materials:

Natural Rubber

### NYLON & PVC VALVE Dimensions and Weights

Connection	Nylon				PVC			
	Threaded				Threaded	Slip		
Size	1"	1 1/2"	2"	323*	3"	3"	4"	6"
Length	4 7/8"	7 3/8"	7 7/8"	9 1/4"	10 1/8"	10 1/8"	11"	14"
Height	2 7/8"	4 3/4"	4 3/8"	4 3/4"	7 5/8"	7 5/8"	8"	15"
Weight (lbs.)	0.4	2	2.2	3.1	9.3	9.3	9.5	20

\*Refers to a 2" valve body with 3" inlet and outlet

## 2-WAY AND 3-WAY VALVE Comparison Chart

	2-Way Valve	3-Way Valve
Closing/Opening Speed	Faster	Slower
Headloss	Minimum	None
Dirty Water Resistant	Medium	High
Vents to the Atmosphere Wetting the Area Around the Valve	No	Yes

### 3-Way Control Valve Applications

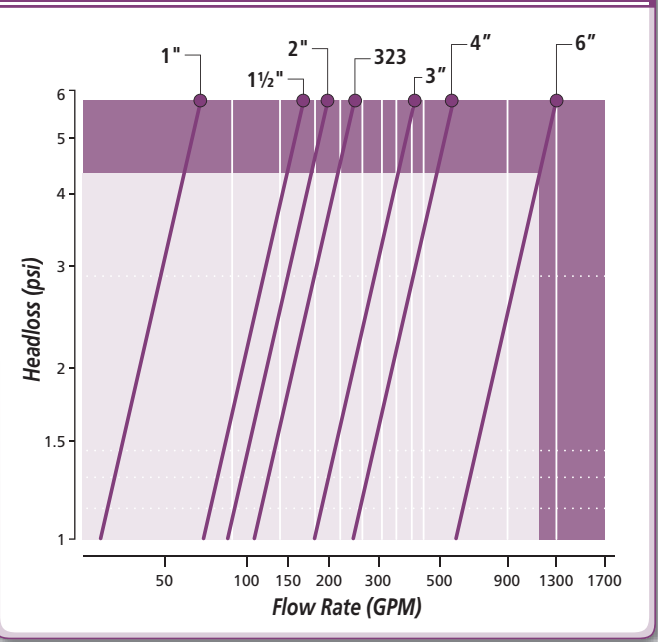
The 3-way control valve only ports water (or air) into the control chamber to close the valve or releases it from the control chamber to open the valve. This non-continuous porting technique allows for full opening of the main valve when operating conditions require the valve to be fully open, making the 3-way valves an excellent choice for:

- Dirty water
- Wastewater
- On-off control valves
- Regulating valves which need to operate with low headloss

### 2-Way Control Valve Applications

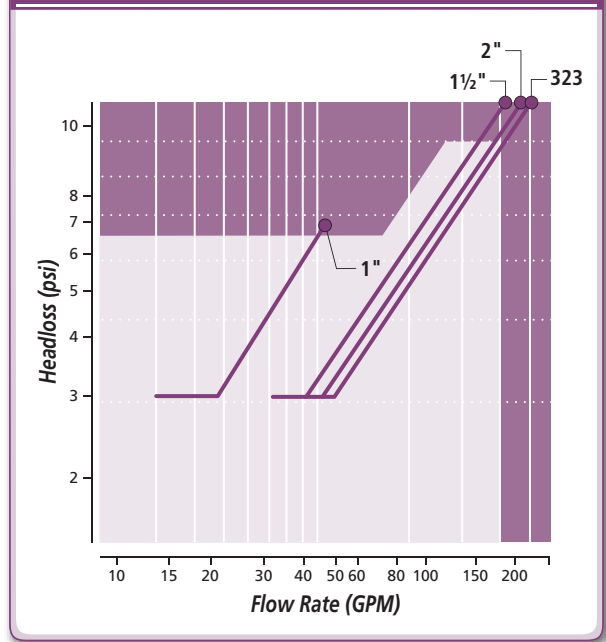
The 2-way control valve continuously ports water into and from the control chamber, making it an excellent choice when a very accurate and sensitive regulation performance is required. The 2-way valves may be used with clean water when a minimal pressure difference is allowed and a fast, accurate response is required.

## NYLON & PVC VALVES Headloss – 3-Way Models



Light area indicates recommended operating range.

## NYLON & PVC VALVES Headloss – 2-Way Models



Light area indicates recommended operating range.

Netafim offers the largest selection of valves available. Sizes range from 1" to 6" in nylon/PVC valves and up to 24" in cast iron and 1" to 6" in bronze. Functions include:

- Manual
- Electric: 2-way or 3-way
- Hydraulic Remote Control
- Pressure Reducing
- Pressure Sustaining
- Quick Reacting Pressure Relief
- Pump Control
- Check Valve
- Surge Anticipating

Please contact Netafim USA's Customer Service team to determine the specific model for your application.

## NYLON & PVC VALVE Ordering Examples

**Basic Valves** - a valve without a control device such as a manual selector, solenoid or pilot. Can be operated with either inline pressure or external pressure sources (such as water or air).

Item Number	Model Number	Description
71610-001400	61B1.5PL	Basic Valve 1.5" Plastic Threaded
71610-001500	61B2PL	Basic Valve 2" Plastic Threaded

**Manual Valve** - a basic valve with a 3-port selector that allows the user to manually select the close/open or remote control position of the valve.

Item Number	Model Number	Description
71610-001450	61M1.5PL	Manual Valve 1.5" Plastic Threaded
71610-005700	61M2PL	Manual Valve 2" Plastic Threaded
71610-006000	61M323PL	Manual Valve 323 Plastic Threaded

**2-Way Electric Valve PBI** - a valve that is activated by an electric current or an electric pulse which opens or closes the valve.

Item Number	Model Number	Description
71610-014000	61ET1PBI	2-Way Electric Throttling Valve 1" Plastic Threaded
71610-014500	61ET2PBI2	2-Way Electric Throttling Valve 2" Plastic Threaded

### Voltages for 1", 2-Way Electric Valve PBI

Standard	Model Number
24VAC	71610 - 014000
12VDC	71610 - 013960
110VAC	71610 - 013965

3 models are available: 24 VAC, 12VDC and 120 VAC. For 2" 2-way valves, please call Netafim Customer Service.

**3-Way Electric Valve** - a valve that is activated by an electric current or an electric pulse which opens or closes the valve.

Item Number	Model Number	Description
71610-014600	61EL2PL	3-Way Electric Valve 2" Plastic Threaded, 24VAC
71610-017020	61EL3PLS	3-Way Electric Valve 3" PVC Slip, 24VAC
71610-016880	61ELT2PL	3-Way Electric Throttling Valve, 2" Plastic Threaded, 24VAC
71610-014470	-	3-Way Electric Valve 2" Plastic Threaded 12VDC Latching
71610-014430	-	3-Way Electric Valve 2" Plastic Threaded 12VDC Continuous

**Manual Electric 3-Way Valves** - An electric valve with a 3-port selector that allows the user to choose the close, open or automatic positions of the valve.

Item Number	Model Number	Description
71610-014400	61MEL2PL	3-Way Manual Electric 2" Plastic Threaded, 24VAC
71610-017100	61MEL3PLT	3-Way Manual Electric 3" PVC Threaded, 24VAC
71610-014536	-	3-Way Manual Electric 2", Plastic Threaded, 12VDC Latching

## NYLON & PVC VALVE Solenoid Options Quick Reference Guide (Please call Customer Service for a full range of options)

### Normally Open Solenoids (3-Way)

Item Number	Part Number	Connection	Base Material	Voltage	Power	Inrush Current	Holding Current	Maximum Operating Pressure	Orifice Size (mm)
71640-006980	61NET	Wire Leads	Plastic	24VAC	2.2 watts	0.13 amps	0.13 amps	145 psi	1.6
71640-007075	61NET5	Wire Leads	Plastic	24VAC	2.9 watts	0.46 amps	0.13 amps	145 psi	1.6

### Coils for 61NET - 24VAC Solenoids (3-Way)

Item Number	Part Number	Connection	Base Material	Voltage	Power	Inrush Current	Holding Current	Maximum Operating Pressure	Orifice Size (mm)
71640-007120	61NTCL3-24V	Wire Leads	Plastic	24VAC	2.2 watts	0.13 amps	0.13 amps	-	-

### Actuators (Coils) for 2-Way Valves

Item Number	Part Number	Connection	Base Material	Voltage	Power	Inrush Current	Holding Current	Maximum Operating Pressure	Orifice Size (mm)
71640-007060	61SDD2-24VAC	2-Way Actuator Wire Leads	-	24VAC	2.2 watts	0.13 amps	0.13 amps	145 psi	1.6
71640-007020	61SDD2-12VDC	2-Way Actuator Wire Leads	-	12VDC	3.8 watts	0.17 amps	0.13 amps	145 psi	1.6
71640-007035	61SDD2-120VAC	2-Way Actuator Hub Connection	-	120VAC	8 Watts	0.13 amps	0.13 amps	145 psi	1.6

### DC Latching Solenoids

Item Number	Part Number	Connection	Base Material	Voltage	Power	Min. Pulse Width (ms)	Contr. Capacity	Ohms	Maximum Operating Pressure	Orifice Size (mm)
10800-00	61NETNO-L	Wire Leads	Plastic	9-12VDC, 2 Wire	3 watts	25-50	4,700 mf	4.2	145 psi	1.2

### MAXIMUM WIRE RUN LENGTH (2-Way Valves)

Gauge	1" Valves	1.5", 2" and 3/2 Valves
14	3,000'	2,400'
18	1,400'	1,000'
24	360'	240'

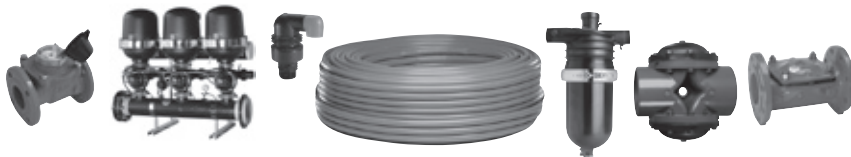
### Latching Solenoids

Latching solenoids are designed for low duty cycle applications where the solenoid's energized position is needed for an extended period of time. When power is applied to the solenoid, the plunger moves to its energized position. The plunger latches magnetically in this position and remains there, consuming no power, until a negative electrical pulse is applied to allow the plunger to unlatch. As opposed to continuous duty on/off solenoids, magnetic latching solenoids do not tend to develop heat since no power is consumed in the energized state. Because magnetic latching solenoids are typically used in low duty cycle applications, they are also perfect candidates for battery operation.

Netafim USA has Latching Solenoids available for our Electric Valve family of products, 2-way and 3-way. Please call Customer Service for more information.

**Netafim USA - Delivering Total System Solutions for Wastewater**

• Dripplines • Filters • Valves • Air Vents • Flow Meters • Controllers



For more information call your Authorized Netafim USA Distributor or call Netafim USA Customer Service at (888) 638-2346.