

Features

- Full port 3-way T or L flow patterns
- Pressure rated 232 PSI (16 Bar) at 73°F (23°C)
- Four ball seat design allows for full pressure at any port
- Energized PTFE ball seats for extended life and lower torque
- Leak free dual stem seal design
- Union nut locking device prevents back-off
- Micro-adjustable ball seat carrier
- Fully machined ball and stem connection
- Actuator ready with optional mounting kit
- Certified per NSF372 and NSF61 for potable/drinking water

Applications

Industrial quality full port PVC 3-way ball valves are typically used to control water and other media compatible with the materials of construction (not suitable for compressed air or gas). Ideal for industrial applications and where NSF approved construction is required for potable drinking water. Typically used as a diverter, selector, or mixing valve. Valves can be manually operated or mounted to air or electric actuators using optional ISO5211 mounting kit.

Operation

Handle can be rotated in any one of four different positions for various flow path options. Easy mounting and maintenance with true union pipe connections. For plumbing convenience, valves include both IPS glue socket and female NPT end connectors.

Construction

Valve Body	PVC cell class 12454 per ASTM D1784 (dark gray)
Ball and Stem	PVC cell class 12454 per ASTM D1784
Handle	PVC cell class 12454 per ASTM D1784
Ball Seats	PTFE (Teflon) energized with EPDM seals
Stem Seals	Dual EPDM seals
End Connectors and Lock Nuts	PVC cell class 12454 per ASTM D1784
Union Nut Locking Device	POM



Description

Industrial grade PVC ball valves offer a variety of advanced features in a wide range of 1/2 through 2 inch pipe sizes. Energized PTFE ball seats are used to extended cycle life, compensate for wear and lower the operating torque. Union locking device prevents nuts from backing off due to vibration or thermal cycling. Dual stem seals and adjustable ball seat carriers contribute to a leak free design. Machined ball and stem connection after molding provides a precise fit.

Approvals

- NSF International certified to:
 - NSF/ANSI 372 Drinking Water
 - NSF/ANSI 61 G
- ANSI B1.20.1
- ASTM D1784, cell class 12454



Options

- Electric actuators
- Air Actuators
- Actuator Mounting Kits

Construction Features

Leak free dual stem seal design

Fully machined ball and stem connection

Both IPS glue socket and female NPT end connectors included with each valve

Energized PTFE ball seats for reduced torque and extended cycle life



Durable handle

Actuator ready with optional ISO5211 mounting kit

Union nut locking devices prevent back-off from vibration or thermal cycling

Full port design for unrestricted flow



Certified to
NSF/ANSI/CAN 61
& NSF/ANSI 372

Certified per NSF372 and NSF61 G for potable / drinking water

Pressure/Temperature

Pressure Rating*: 232 PSI (16 Bar) at 73°F (23°C)

Vacuum service to 29inHg at 73°F (23°C)

Temperature Rating: 32 to 140° F (0 to 60°C)

*See P/T chart

Pressure/Temperature Chart

P/T Chart (PSI/°F)							
PSI	232	232	232	180	150	100	35
°F	32	50	70	90	110	120	140
P/T Chart (BAR/°C)							
Bar	16	16	16	12	10	7	2.4
°C	0	10	21	32	43	49	60

Specifications (English units)

Stock Number	Pipe Size* (inches)	Flow Pattern	Cv	Orifice Size	Pressure (PSI)**	Body Material	Seal Materials	Torque (inch lbs)
T-PORT PVC 3-WAY BALL VALVE, EPDM/ PTFE SEALS								
551430	1/2	T	4.6	Full Port	232	PVC	PTFE/ EPDM	22
551431	3/4	T	10	Full Port	232	PVC	PTFE/ EPDM	40
551433	1	T	17	Full Port	232	PVC	PTFE/ EPDM	53
551434	1-1/4	T	32	Full Port	232	PVC	PTFE/ EPDM	102
551435	1-1/2	T	42	Full Port	232	PVC	PTFE/ EPDM	124
551436	2	T	84	Full Port	232	PVC	PTFE/ EPDM	204
L-PORT PVC 3-WAY BALL VALVE, EPDM/ PTFE SEALS								
551404	1/2	L	4.6	Full Port	232	PVC	PTFE/ EPDM	22
551406	3/4	L	10	Full Port	232	PVC	PTFE/ EPDM	40
551408	1	L	17	Full Port	232	PVC	PTFE/ EPDM	53
551410	1-1/4	L	32	Full Port	232	PVC	PTFE/ EPDM	102
551412	1-1/2	L	42	Full Port	232	PVC	PTFE/ EPDM	124
551416	2	L	84	Full Port	232	PVC	PTFE/ EPDM	204

* Both IPS glue socket and female NPT end connectors included with each valve; ** Pressure at 32 to 73° F (reduced pressure at higher temperatures—see P/T chart); Cv= The GPM of water at 60° F that will pass through the valve with 1 PSI pressure drop; Torque values at 0 PSI and 73°F

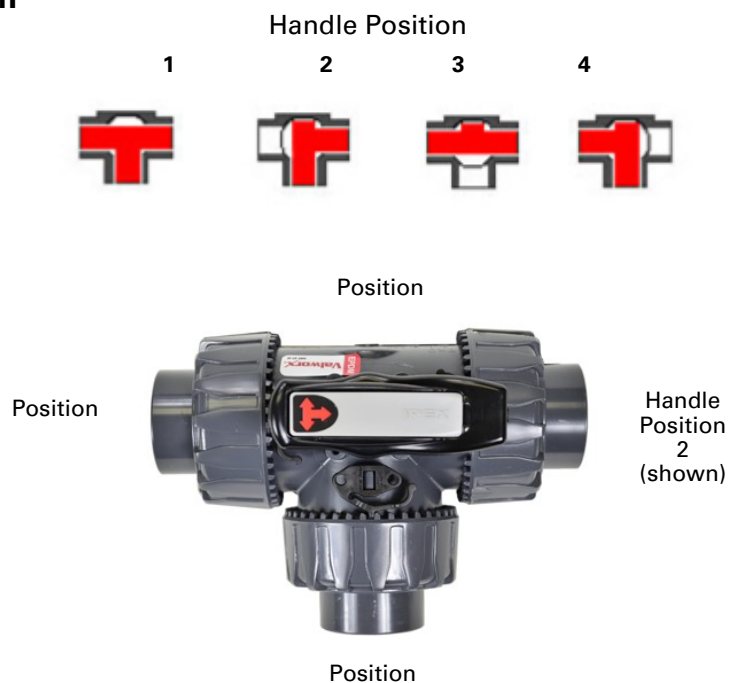
Specifications (Metric units)

Stock Number	Pipe Size* (inches)	Flow Pattern	Kv	Orifice Size	Pressure (Bar)**	Body Material	Seal Materials	Torque (Nm)
T-PORT PVC 3-WAY BALL VALVE, EPDM/ PTFE SEALS								
551430	1/2	T	4	Full Port	16	PVC	PTFE/ EPDM	2.5
551431	3/4	T	8.6	Full Port	16	PVC	PTFE/ EPDM	4.5
551433	1	T	15	Full Port	16	PVC	PTFE/ EPDM	6
551434	1-1/4	T	27.5	Full Port	16	PVC	PTFE/ EPDM	11.5
551435	1-1/2	T	36	Full Port	16	PVC	PTFE/ EPDM	14
551436	2	T	72	Full Port	16	PVC	PTFE/ EPDM	23
L-PORT PVC 3-WAY BALL VALVE, EPDM/ PTFE SEALS								
551404	1/2	L	4	Full Port	16	PVC	PTFE/ EPDM	2.5
551406	3/4	L	8.6	Full Port	16	PVC	PTFE/ EPDM	4.5
551408	1	L	15	Full Port	16	PVC	PTFE/ EPDM	6
551410	1-1/4	L	27.5	Full Port	16	PVC	PTFE/ EPDM	11.5
551412	1-1/2	L	36	Full Port	16	PVC	PTFE/ EPDM	14
551416	2	L	72	Full Port	16	PVC	PTFE/ EPDM	23

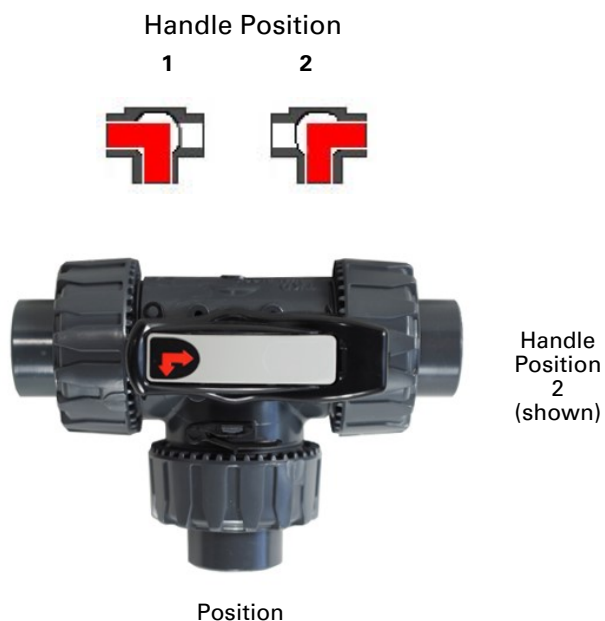
* Both IPS glue socket and female NPT end connectors are included with each valve; ** Pressure at 0 to 23° C (reduced pressure at higher temperatures—see P/T chart); Torque values at 0 Bar and 23°C

Flow Path Options:

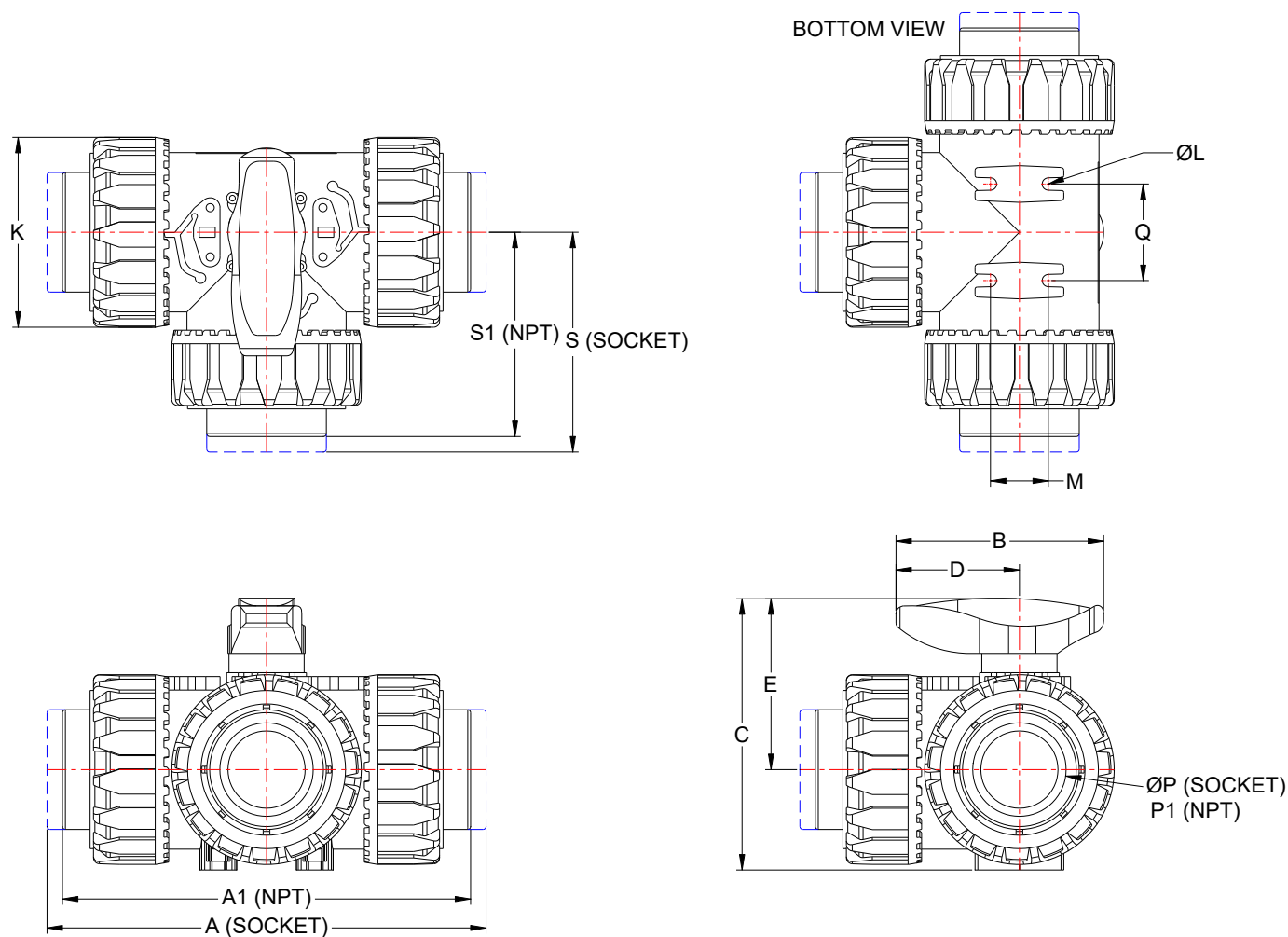
T-port Flow Pattern



L-port Flow Pattern



Dimensions:



Pipe Size		A	A1	B	C	D	E	K	L	M	P	P1	Q	S	S1	Weight
1/2	inch	5.20	4.96	2.64	3.27	1.57	2.13	2.13	—	0.79	0.84	1/2	1.22	2.60	2.48	0.68 lb
	mm	132	126	67	83	40	54	54	5.5	20	—	—	31	66	63	0.3 kg
3/4	inch	6.27	5.76	3.35	3.92	1.93	2.56	2.56	—	0.79	1.05	3/4	1.22	3.13	2.87	1.21 lb
	mm	159	146	85	100	49	65	65	5.5	20	—	—	31	79.5	73	0.55 kg
1	inch	6.85	6.56	3.35	4.28	1.93	2.74	2.87	—	0.79	1.32	1	1.22	3.43	3.29	1.74 lb
	mm	174	167	85	109	49	70	73	5.5	20	—	—	31	87	83.5	0.79 kg
1-1/4	inch	8.07	7.71	4.25	5.06	2.52	3.25	3.39	—	1.18	1.66	1-1/4	1.97	4.03	3.85	2.8 lb
	mm	205	196	108	129	64	83	86	6.5	30	—	—	50	102.5	97.9	0.36 kg
1-1/2	inch	8.96	8.32	4.25	5.55	2.52	3.50	3.86	—	1.18	1.90	1-1/2	1.97	4.49	4.15	3.66 lb
	mm	228	211	108	141	64	89	98	6.5	30	—	—	50	114	105.5	1.67 kg
2	inch	10.51	9.99	5.28	6.69	2.99	4.25	4.80	—	1.18	2.38	2	1.97	5.26	5	6.2 lb
	mm	267	254	134	170	76	108	122	6.5	30	—	—	50	133.5	127	2.8 kg