

### Features

- Standard Port 3-way "L" or "T" flow path
- Four seat design allows for full pressure at any port
- Hand lever operator
- Actuator ready ISO5211 direct mounting pad
- PTFE (Teflon) ball seats with FKM (Viton) o-ring backing
- PTFE (Teflon) stem seals with FKM (Viton) double o-rings
- Functions as a diverter, selector or mixing valve

### Applications

Brass 3-way ball valves are typically used to control water, air, oil, vacuum and other media compatible with the materials of construction. Often used as a diverter, selector or mixing valve with a variety of flow path options. Unique four ball seat design allows for full pressure at any port. Air or electric actuators are easily direct mounted to the valve using standard ISO5211 mounting pad. This eliminates misalignment and the need for extra mounting brackets and couplings. Suitable for vacuum service to 29inHg.

### Pressure-Temperature\*

**Pressure Rating:** 400 PSI WOG (27 Bar), Vacuum service to 29inHg

**Temperature Rating:** 0 to 344° F (-18 to 173°C)

\*See P/T chart

### Construction

<b>Valve Body</b>	Brass CW617N, UNI EN12165
<b>Ball</b>	Brass CW617N, UNI EN12165 chrome plated
<b>Stem</b>	Brass CW614N, UNI EN12164 plated
<b>Ball Seats</b>	PTFE (Teflon) with FKM (Viton) o-ring backing
<b>Stem Seals</b>	PTFE (Teflon) with double FKM (Viton) o-rings
<b>Hand Lever</b>	Plated steel with vinyl cover (Nylon washer)
<b>Hand Lever Fasteners</b>	Plated steel screw, Nylon & plated steel washer



### Operation

Turning the hand lever one quarter-turn (90°) rotates the ball from position one to position two. L-port valves operate as either a two position diverter or selector valve. T-port valves can be set-up in any one of four different flow patterns (T1-T4) in the field by simply rotating the stem (see flow diagram). Remove the hand lever and the valve is actuator ready with standard ISO5211 mounting pad and square output shaft.

### Description

Standard port brass 3-way valves can be used as a diverter, selector or mixing function. Manually operated with hand lever or remove the lever and direct mount to an air or electric actuator with standard ISO5211 mounting pad. Advanced FOUR seat o-ring backed Teflon ball seals are designed for low torque, extended life and allows for full pressure at any port. Stem seal design incorporates Teflon and double FKM (Viton) o-rings to reduce any chance of leaks. This also eliminates the need for stem seal adjustment common to conventional style ball valves.

### Options

- Air Actuators
- Electric Actuators

## Flow Path Options

		Handle Position				Handle Position	
		1	2			1	2
L-port				T-port	T1		
					T2		
					T3		
					T4		

Hand lever is shown in position 1, rotate the lever 90 degrees counterclockwise for position 2. For T-port valves, rotate square stem to anyone of four positions T1, T2, T3 or T4 to change the flow path, install hand lever.

## Pressure/Temperature Chart

P/T Chart (PSI/°F)								
<b>PSI</b>	400	400	400	400	375	300	200	150
<b>°F</b>	0	50	100	176	200	250	300	344
P/T Chart (BAR/°C)								
<b>Bar</b>	27	27	27	27	25	20	14	10
<b>°C</b>	-18	10	38	80	93	121	149	173

### Specifications (English units)

Stock Number	Pipe Size (inch)	Orifice Diameter (inch)	Cv	Pressure* (PSI)	Torque (inch lbs)	ISO5211 Mount	Weight (lbs)
<b>3-WAY BRASS BALL VALVE L-PORT</b>							
536502	1/4	0.39	3.3	400	53	F03/9mm	1.2
536503	3/8	0.43	3.5	400	53	F03/9mm	1.2
536504	1/2	0.43	4.2	400	53	F03/9mm	1.2
536506	3/4	0.59	7.0	400	53	F03/9mm	1.4
536508	1	0.79	13	400	150	F05/11mm	2.6
536510	1-1/4	0.98	18	400	150	F05/11mm	4.2
536512	1-1/2	1.26	30	400	150	F05/11mm	6.0
536516	2	1.57	44	400	275	F07/14mm	9.0
536520	2-1/2	2.00	70	400	381	F07/14mm	16.3
536524	3	2.00	70	400	381	F07/14mm	19.6
<b>3-WAY BRASS BALL VALVE T-PORT</b>							
536602	1/4	0.39	3.3	400	53	F03/9mm	1.2
536603	3/8	0.43	3.5	400	53	F03/9mm	1.2
536604	1/2	0.43	4.2	400	53	F03/9mm	1.2
536606	3/4	0.59	7.0	400	53	F03/9mm	1.4
536608	1	0.79	13	400	150	F05/11mm	2.6
536610	1-1/4	0.98	18	400	150	F05/11mm	4.2
536612	1-1/2	1.26	30	400	150	F05/11mm	6.0
536616	2	1.57	44	400	275	F07/14mm	9.0
536620	2-1/2	2.00	70	400	381	F07/14mm	16.3
536624	3	2.00	70	400	381	F07/14mm	19.6

Cv= The GPM of water at 60° F that will pass through the valve with 1 PSI pressure drop

\* Pressure range @ 0-176° F (reduced pressure for higher temperatures—see P/T chart)

• Torque at 0 PSI and 75°F

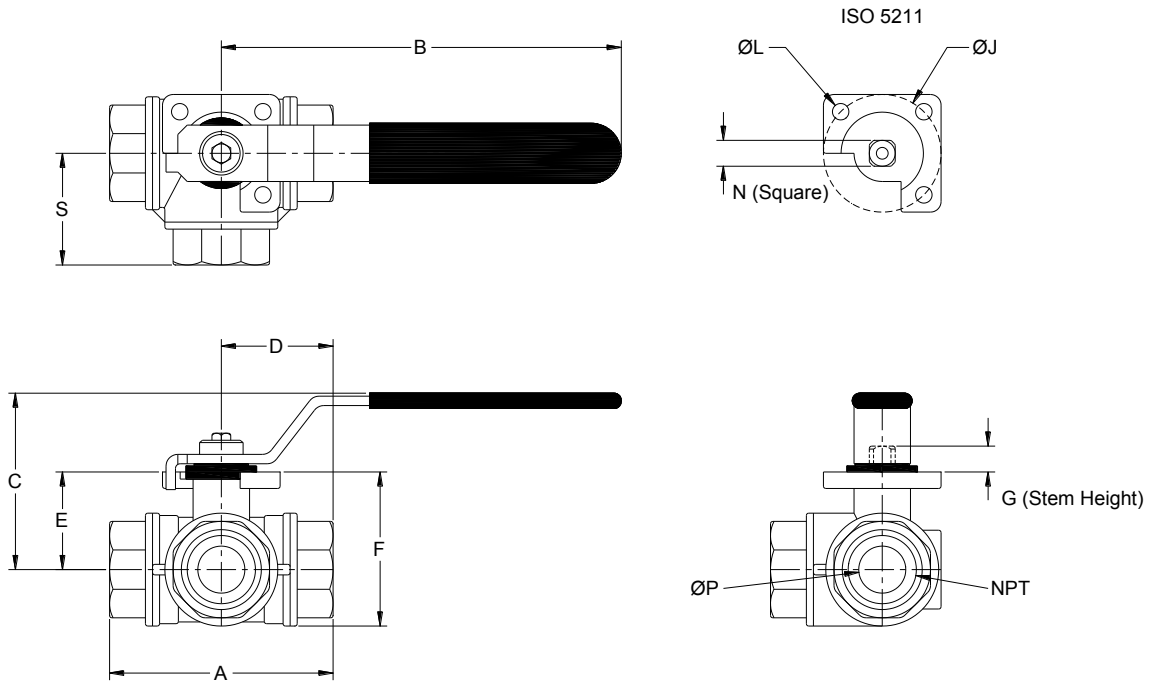
**Specifications (Metric units)**

Stock Number	Pipe Size (NPT)	Orifice Diameter (mm)	Kv	Pressure* (Bar)	Torque (Nm)	ISO5211 Mount	Weight (Kg)
<b>3-WAY BRASS BALL VALVE L-PORT</b>							
536502	1/4	10	2.8	27	6	F03/9mm	0.54
536503	3/8	11	3.0	27	6	F03/9mm	0.54
536504	1/2	11	3.6	27	6	F03/9mm	0.54
536506	3/4	15	6.0	27	6	F03/9mm	0.64
536508	1	20	11	27	17	F05/11mm	1.2
536510	1-1/4	25	15	27	17	F05/11mm	1.9
536512	1-1/2	32	26	27	17	F05/11mm	2.7
536516	2	40	38	27	31	F07/14mm	4.1
536520	2-1/2	50	60	27	43	F07/14mm	7.4
536524	3	50	60	27	43	F07/14mm	8.9
<b>3-WAY BRASS BALL VALVE T-PORT</b>							
536602	1/4	10	2.8	27	6	F03/9mm	0.54
536603	3/8	11	3.0	27	6	F03/9mm	0.54
536604	1/2	11	3.6	27	6	F03/9mm	0.54
536606	3/4	15	6.0	27	6	F03/9mm	0.64
536608	1	20	11	27	17	F05/11mm	1.2
536610	1-1/4	25	15	27	17	F05/11mm	1.9
536612	1-1/2	32	26	27	17	F05/11mm	2.7
536616	2	40	38	27	31	F07/14mm	4.1
536620	2-1/2	50	60	27	43	F07/14mm	7.4
536624	3	50	60	27	43	F07/14mm	8.9

\* Pressure range @ -18 to 80° C (reduced pressure for higher temperatures—see P/T chart)

• Torque at 0 Bar and 24°C

**Dimensions:**



Pipe Size (NPT)		A	B	C	D	E	F	G	J	L	N	P	S	ISO	Weight
1/4	inch	2.64	4.72	2.44	1.32	1.20	1.87	0.35	1.42	0.24	0.35	0.39	1.32	F03	1.22 lb
	mm	67	120	62	33.5	30.5	47.5	9	36	6	9	10	33.5		0.6 kg
3/8	inch	2.64	4.72	2.44	1.32	1.20	1.87	0.35	1.42	0.24	0.35	0.43	1.32	F03	1.16 lb
	mm	67	120	62	33.5	30.5	47.5	9	36	6	9	11	33.5		0.5 kg
1/2	inch	2.87	4.72	2.44	1.44	1.20	1.87	0.35	1.42	0.24	0.35	0.43	1.44	F03	1.21 lb
	mm	73	120	62	36.5	30.5	47.5	9	36	6	9	11	36.5		0.5 kg
3/4	inch	3.19	4.72	2.52	1.59	1.30	2.07	0.35	1.42	0.24	0.35	0.59	1.59	F03	1.44 lb
	mm	81	120	64	40.5	33	52.5	9	36	6	9	15	40.5		0.7 kg
1	inch	3.74	6.69	2.95	1.87	1.63	2.58	0.43	1.97	0.28	0.43	0.79	1.87	F05	2.64 lb
	mm	95	170	75	47.5	41.5	65.5	11	50	7	11	20	47.5		1.2 kg
1-1/4	inch	4.39	6.69	3.17	2.20	1.85	3.03	0.43	1.97	0.28	0.43	0.98	2.20	F05	4.15 lb
	mm	111.5	170	80.5	55.8	47	77	11	50	7	11	25	55.8		1.9 kg
1-1/2	inch	4.86	6.69	3.66	2.43	2.34	3.76	0.43	1.97	0.28	0.43	1.26	2.43	F05	6.02 lb
	mm	123.5	170	93	61.8	59.5	95.5	11	50	7	11	32	61.8		2.7 kg
2	inch	5.73	9.05	4.43	2.87	2.91	4.61	0.59	2.76	0.35	0.55	1.57	2.87	F07	9.08 lb
	mm	145.5	230	112.5	72.8	74	117	15	70	9	14	40	72.8		4.1 kg
2-1/2	inch	6.93	9.05	4.86	3.46	3.35	5.53	0.59	2.76	0.35	0.55	1.95	3.46	F07	16.33 lb
	mm	176	230	123.5	88	85	140.5	15	70	9	14	49.5	88		7.4 kg
3	inch	7.09	9.05	4.86	3.54	3.35	5.57	0.59	2.76	0.35	0.55	1.95	3.54	F07	19.55 lb
	mm	180	230	123.5	90	85	141.5	15	70	9	14	49.5	90		8.9 kg