

Features

- FULL PORT 3-way "L" or "T" flow path
- Functions as a diverter, selector or mixing valve
- Four ball seat design allows for full pressure at any port
- Stainless steel hand lever with latch locking
- Actuator ready ISO5211 direct mounting pad
- 316 stainless steel ball and stem
- Energized PTFE ball seats for lower torque and longer life
- Leak free Triple PTFE/FKM stem seal packing
- Environmentally friendly Lead Free brass body
- Certified per NSF372 and NSF61 for potable/drinking water

Applications

Brass Full Port 3-way ball valves are typically used to control water, air, oil, vacuum and other media compatible with the materials of construction. These 3-port valves are ideal where lead free and NSF approved construction are required for potable drinking water. Typically 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 29in Hg.

Operation

Turning the hand lever one quarter-turn (90°) rotates the ball from position 1 to position 2. L-port valves operate as either a two position diverter or selector valve. Standard T-port valves are setup in T2 flow path configuration and easily changed in the field to alternate flow path T1, T3 or T4 (see flow diagram). Stainless steel handle with vinyl grip has pad locking capabilities in either position 1 or 2. Remove the hand lever for access to actuator ready mounting flange.

Construction

Valve Body	Lead free brass C69300
Ball	316 stainless steel, full port
Stem	316 stainless steel
Ball Seats	(4) PTFE (Teflon) energized with FKM (Viton)
Stem Seals	(1) PTFE (Teflon) and dual FKM (Viton) seals
Hand Lever	304 stainless steel with vinyl cover, locking type
Hardware	304 stainless steel



Description

Full port brass 3-way valves can be used as a diverter, selector or mixing function. These three port valves are 3rd party certified for use with potable drinking water. 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 energized PTFE ball seats are designed for low torque, extended life and allows for full pressure at any port. Leak free PTFE/Viton stem seal design. High performance ball and stem are made of 316SS rather than the typical plated brass.



Approvals

- IAPMO RT certified to:
 - NSF/ANSI 372 - 2011 Drinking Water
 - NSF/ANSI 61 - 2015
 - California Health & Safety 116875
 - Section 1417 of Safe Drinking Water Act
 - Weighted average lead content < = 0.25%
- Meets design MSS-SP-110

Construction Features

Stainless steel handle with vinyl grip

Latch locking handle, pad lockable

3rd party certified for use with potable drinking water, Identified by LF mark for "Lead Free"

Full port 316 stainless steel ball

Energized PTFE ball seats for reduced torque and extended life

316 stainless steel stem with leak free PTFE and dual FKM packing

Functions as a diverter, selector or mixing valve, easily change the flow path

Valve body made of environmentally friendly Lead Free brass, resistant to dezincification and stress corrosion cracking



ISO5211 actuator ready mounting flange



Pressure-Temperature

Pressure Rating*: 400 PSI CWP (27 Bar) non-shock

Steam 100 WSP (7 Bar)

Vacuum service to 29inHg

Temperature Rating: -4 to 344° F (-20 to 173°C)

*See P/T chart

Pressure/Temperature Chart

P/T Chart (PSI/°F)								
PSI	400	400	400	400	375	300	200	150
°F	0	50	100	176	200	250	300	344
P/T Chart (BAR/°C)								
Bar	27	27	27	27	25	20	14	10
°C	-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
3-WAY LEAD FREE BRASS BALL VALVE: L-PORT						
536802	1/4	0.39	3.2	400	52	F03/F04-9mm
536803	3/8	0.39	3.5	400	52	F03/F04-9mm
536804	1/2	0.59	4.5	400	52	F03/F04-9mm
536806	3/4	0.75	10	400	90	F04/F05-11mm
536808	1	1.00	16	400	150	F04/F05-11mm
536810	1-1/4	1.22	31	400	220	F04/F05-11mm
536812	1-1/2	1.50	49	400	320	F05/F07-14mm
536816	2	2.00	82	400	550	F05/F07-14mm
3-WAY LEAD FREE BRASS BALL VALVE: T-PORT						
536902	1/4	0.39	3.2	400	52	F03/F04-9mm
536903	3/8	0.39	3.5	400	52	F03/F04-9mm
536904	1/2	0.59	4.5	400	52	F03/F04-9mm
536906	3/4	0.75	10	400	90	F04/F05-11mm
536908	1	1.00	16	400	150	F04/F05-11mm
536910	1-1/4	1.22	31	400	220	F04/F05-11mm
536912	1-1/2	1.50	49	400	320	F05/F07-14mm
536916	2	2.00	82	400	550	F05/F07-14mm

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

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

Torque at 0 PSI and 75°F

Flow Path Options

Handle Position

1 2

L-port

Handle Position

1 2

T-port

T1

T2

T3

T4

Handle shown in position 1. Rotate handle counterclockwise 90° for position 2. T-port valves can be easily changed from standard T2 flow path to either T1, T3 or T4. To change, remove handle, rotate square stem to desired position, reinstall handle.

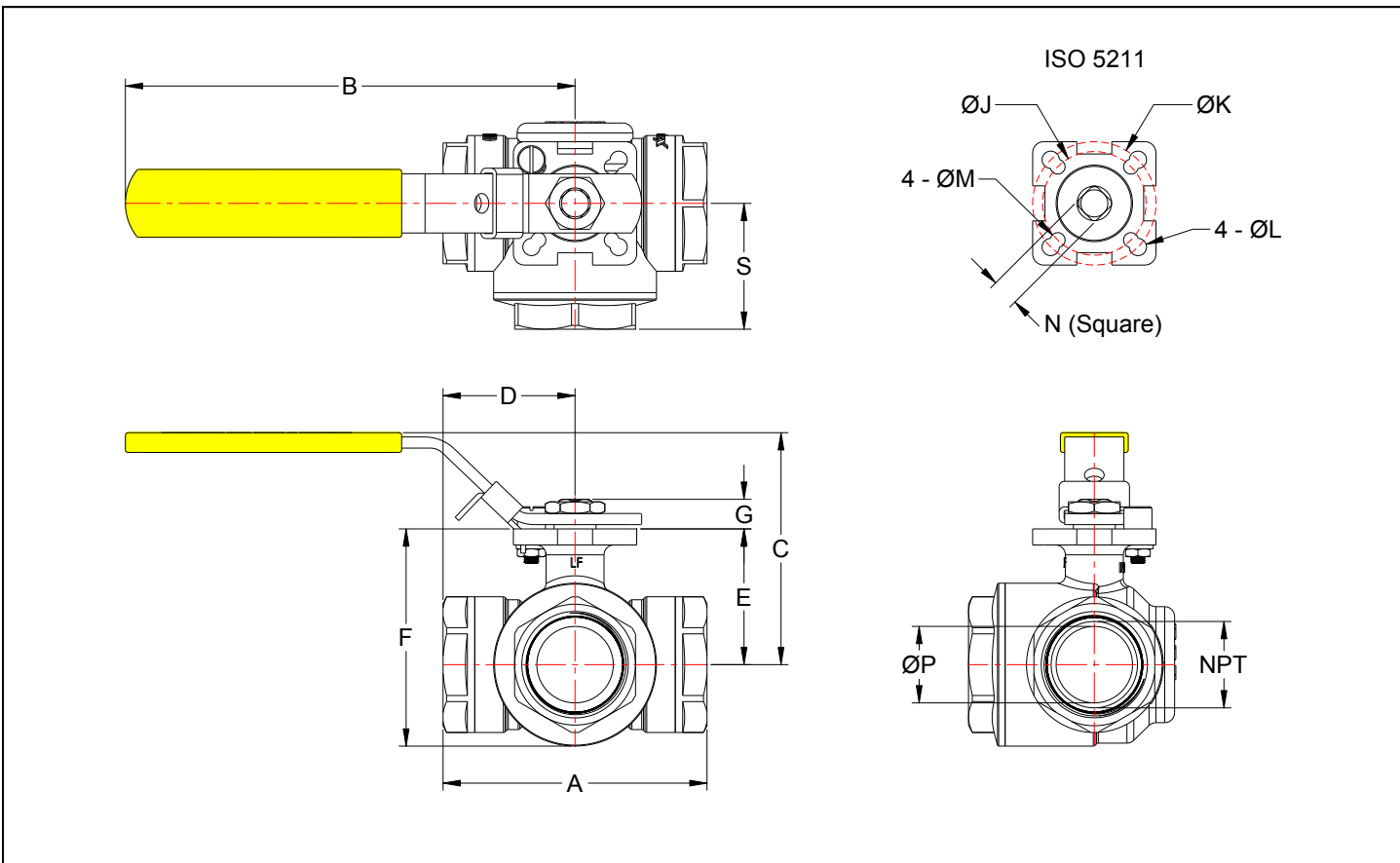
Specifications (Metric units)

Stock Number	Pipe Size (NPT)	Orifice Diameter (mm)	Kv	Pressure* (Bar)	Torque (Nm)	ISO5211 Mount
3-WAY LEAD FREE BRASS BALL VALVE: L-PORT						
536802	1/4	10	2.8	27	6	F03/F04-9mm
536803	3/8	10	3.0	27	6	F03/F04-9mm
536804	1/2	15	3.9	27	6	F03/F04-9mm
536806	3/4	19	8.6	27	10	F04/F05-11mm
536808	1	25	14	27	17	F04/F05-11mm
536810	1-1/4	31	27	27	25	F04/F05-11mm
536812	1-1/2	38	42	27	36	F05/F07-14mm
536816	2	50	70	27	62	F05/F07-14mm
3-WAY LEAD FREE BRASS BALL VALVE: T-PORT						
536902	1/4	10	2.8	27	6	F03/F04-9mm
536903	3/8	10	3.0	27	6	F03/F04-9mm
536904	1/2	15	3.9	27	6	F03/F04-9mm
536906	3/4	19	8.6	27	10	F04/F05-11mm
536908	1	25	14	27	17	F04/F05-11mm
536910	1-1/4	31	27	27	25	F04/F05-11mm
536912	1-1/2	38	42	27	36	F05/F07-14mm
536916	2	50	70	27	62	F05/F07-14mm

* Pressure range at -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	K	L	M	N	P	S	ISO	Weight
1/4	inch	2.19	5	2.17	1.09	1.04	1.61	0.31	1.42	1.65	0.24	0.24	0.35	0.39	1.08	F03/F04	0.85 lb
	mm	55.6	131	55	27.8	26.5	40.8	8	36	42	6	6	9	10	27.5		0.39 kg
3/8	inch	2.19	5	2.17	1.09	1.04	1.61	0.31	1.42	1.65	0.24	0.24	0.35	0.39	1.08	F03/F04	0.8 lb
	mm	55.6	131	55	27.8	26.5	40.8	8	36	42	6	6	9	10	27.5		0.36 kg
1/2	inch	2.87	5	2.44	1.44	1.32	2.10	0.35	1.42	1.65	0.24	0.24	0.35	0.59	1.44	F03/F04	1.4 lb
	mm	73	131	62	36.5	33.5	53.3	9	36	42	6	6	9	15	36.5		0.64 kg
3/4	inch	3.27	7	3.23	1.63	1.69	2.61	0.47	1.65	1.97	0.28	0.24	0.43	0.75	1.63	F04/F05	2.4 lb
	mm	83	183	82	41.5	43	66.3	12	42	50	7	6	11	19	41.5		1.1 kg
1	inch	3.76	7	3.39	1.88	1.87	2.98	0.47	1.65	1.97	0.28	0.24	0.43	1.00	1.84	F04/F05	3.1 lb
	mm	95.6	183	86	47.8	47.6	75.6	12	42	50	7	6	11	25	46.8		1.4 kg
1-1/4	inch	4.21	7	3.70	2.11	2.17	3.46	0.47	1.65	1.97	0.28	0.24	0.43	1.22	2.01	F04/F05	4.0 lb
	mm	107	183	94	53.5	55	88	12	42	50	7	6	11	31	51		1.8 kg
1-1/2	inch	4.96	9	4.17	2.48	2.58	4.15	0.59	1.97	2.76	0.35	0.28	0.55	1.50	2.34	F05/F07	6.9 lb
	mm	126	227	106	63	65.5	105.3	15	50	70	9	7	14	38	60		3.1 kg
2	inch	5.87	9	4.65	2.93	3.03	4.96	0.59	1.97	2.76	0.35	0.28	0.55	2.00	2.72	F05/F07	10.3 lb
	mm	149	227	118	74.5	77	126	15	50	70	9	7	14	50	69		4.7 kg