

### Features

- Environmentally friendly lead free brass body
- Full Port design for unrestricted flow
- Stainless steel lever with latch locking
- Actuator ready ISO5211 direct mounting pad
- Industrial grade and designed for low operating torque
- Blow-out proof stem
- 316 stainless steel ball and stem
- Energized PTFE ball seats for lower torque and longer life
- Leak free Triple PTFE/FKM stem seal packing
- Certified per NSF372 and NSF61 for potable/drinking water

### Applications

Brass Full Port ball valves are typically used for on-off control of water, air, oil, vacuum and other media compatible with the materials of construction. These valves are ideal where lead free and NSF approved construction are required for potable drinking water. Valves can be manually operated or direct mounted to air or electric actuators using the standard ISO5211 mounting pad. This eliminates the need for extra mounting brackets and couplings. Suitable for steam service up to 150 PSI. Suitable for vacuum service up to 29inHg.

### Operation

Turning the valve handle one quarter-turn (90°) rotates the ball from closed to the full open position. Latch locking device allows for pad locking the valve in either open or closed position. Removing stainless steel handle provides access to standard ISO5211 direct mounting flange.

### Construction

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



### Description

Full port 2-piece lead free brass ball valve is 3rd party certified for use with potable drinking water. High performance ball and stem are made of 316SS rather than the typical plated brass. Energized PTFE ball seats are designed for low torque and extended cycle life. These ball valves incorporate a unique leak free triple PTFE/Viton stem seal design. Handle is made of corrosion resistant stainless steel with vinyl grip and features a latch locking device. Actuator ready design utilizes industry standard ISO5211 direct mounting pad.

### 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  $\leq 0.25\%$
- Meets design MSS-SP-110



### Construction Features

316 stainless steel stem with PTFE and dual FKM (Viton) stem seals

ISO5211 actuator ready mounting flange

Full port 316 stainless steel ball

Energized PTFE ball seats for reduced torque and extended cycle life

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"

Valve body made of environmentally friendly lead free brass, resistant to dezincification and stress corrosion cracking

### Pressure-Temperature

**Pressure Rating\***: 600 PSI (41 Bar)\* non-shock, 1-4" to 2" NPT sizes  
300 PSI (21 Bar)\* non-shock, 2-1/2" & 3" NPT sizes  
150 PSI saturated steam  
29" Hg vacuum

**Temperature Rating**: -4 to 366° F (-20 to 186°C)  
Max. potable water contact temperature 180° F (82°C)

\*See P/T chart

### Pressure/Temperature Chart

P/T Chart (PSI/°F)								
PSI	600	600	600	600	550	425	325	150
°F	0	50	100	176	200	250	300	366
P/T Chart (BAR/°C)								
Bar	41	41	41	41	38	29	22	10
°C	-18	10	38	80	93	121	149	185

ISO5211 actuator ready mounting flange



### Specifications (English units)

Stock Number	Pipe Size (NPT)	Orifice Diam. (inch)	Cv	Pressure* (PSI)	Torque (inch lbs)	ISO5211 Mount
525402	1/4	0.39	6	600	30	F03/F05-9mm
525403	3/8	0.50	10	600	30	F03/F05-9mm
525404	1/2	0.59	15	600	38	F03/F05-9mm
525406	3/4	0.75	30	600	52	F03/F05-9mm
525408	1	1.00	60	600	75	F03/F05-9mm
525410	1-1/4	1.22	89	600	75	F03/F05-9mm
525412	1-1/2	1.50	125	600	125	F05/F07-11mm
525416	2	2.00	240	600	170	F05/F07-11mm
525420	2-1/2	2.50	320	600	290	F07-14mm
525424	3	3.00	551	600	390	F07-14mm

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

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

Torque values at 0 PSI and 75°F

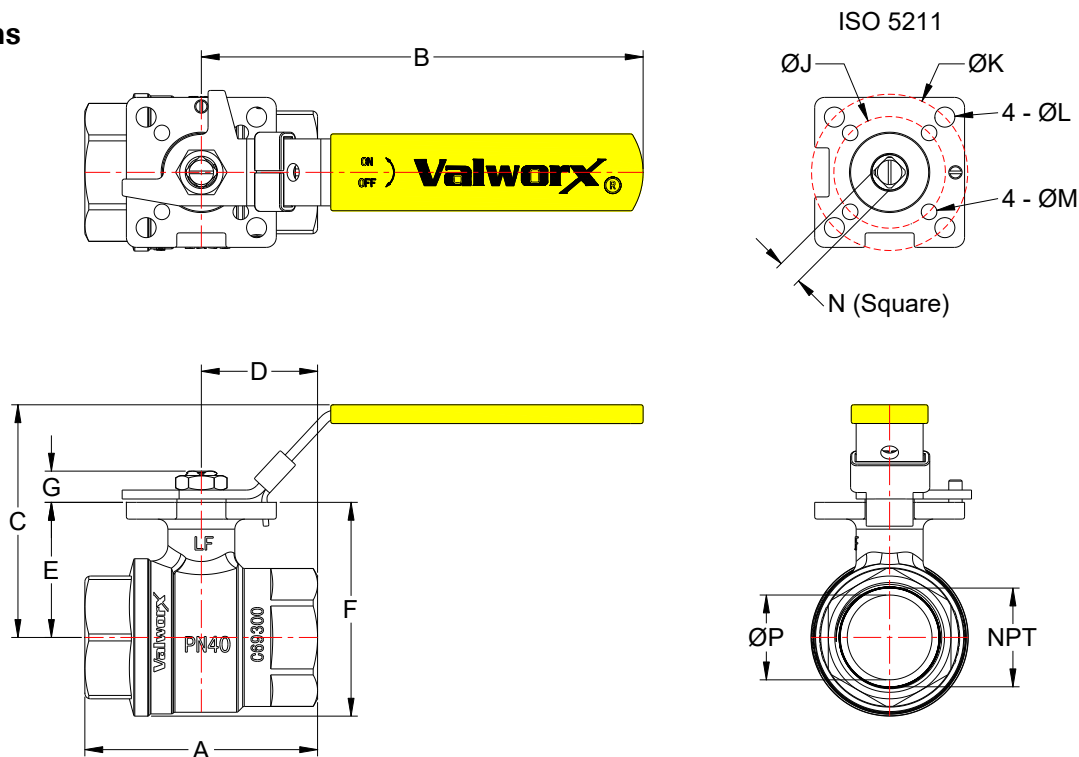
### Specifications (Metric units)

Stock Number	Pipe Size (NPT)	Orifice Diam. (mm)	Kv	Pressure* (Bar)	Torque (Nm)	ISO5211 Mount
525402	1/4	10	5	40	3.4	F03/F05-9mm
525403	3/8	12.7	8.6	40	3.4	F03/F05-9mm
525404	1/2	15	13	40	4.3	F03/F05-9mm
525406	3/4	19	26	40	6	F03/F05-9mm
525408	1	25	52	40	8.5	F03/F05-9mm
525410	1-1/4	31	76	40	8.5	F03/F05-9mm
525412	1-1/2	38	107	40	14.1	F05/F07-11mm
525416	2	50	206	40	19.2	F05/F07-11mm
525420	2-1/2	63	275	40	32.8	F07-14mm
525424	3	76	474	40	44	F07-14mm

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

Torque values at 0 Bar and 24°C

## Dimensions



Pipe NPT		A	B	C	D	E	F	G	J	K	L	M	N	P	ISO5211	Weight
1/4	inch	1.9	4.4	2.4	0.9	0.9	1.4	0.3	1.4	1.9	0.3	0.2	0.4	0.39	F03/F05	0.6 lb
	mm	47.6	111	61	23.8	22	34.3	8	36	50	7	6	9	10		0.3 kg
3/8	inch	2.0	4.4	2.6	1.0	1.0	1.6	0.3	1.4	1.9	0.3	0.2	0.4	0.50	F03/F05	0.7 lb
	mm	51.4	111	65	25.7	26.5	40.8	8.5	36	50	7	6	9	12.7		0.3 kg
1/2	inch	2.5	4.4	2.8	1.3	1.3	1.9	0.3	1.4	1.9	0.3	0.2	0.4	0.59	F03/F05	0.9 lb
	mm	63.6	111	71	31.8	32	49.3	8.5	36	50	7	6	9	15		0.4 kg
3/4	inch	2.7	4.4	2.9	1.4	1.4	2.2	0.3	1.4	1.9	0.3	0.2	0.4	0.75	F03/F05	1.1 lb
	mm	69	111	74	34.5	34.8	54.8	8.5	36	50	7	6	9	19		0.5 kg
1	inch	3.3	4.4	3.3	1.7	1.8	2.7	0.5	1.4	1.9	0.3	0.2	0.4	1.00	F03/F05	1.7 lb
	mm	84.4	111	83	42.2	44.5	69.3	11.4	36	50	7	6	9	25		0.8 kg
1-1/4	inch	3.7	4.4	3.5	1.8	1.9	3.1	0.5	1.4	1.9	0.3	0.2	0.4	1.22	F03/F05	2.3 lb
	mm	92.7	111	88	46.3	49.5	79	11.4	36	50	7	6	9	31		1.1 kg
1-1/2	inch	4.1	7.8	4.1	2.1	2.4	3.8	0.6	1.9	2.8	0.3	0.3	0.4	1.50	F05/F07	3.8 lb
	mm	104	199	104	52.1	60.5	95.8	14	50	70	9	7	11	38		1.7 kg
2	inch	4.8	7.8	4.6	2.4	2.8	4.6	0.6	1.9	2.8	0.4	0.3	0.4	2.00	F05/F07	5.7 lb
	mm	121	199	116	60.6	72	117	14	50	70	9	7	11	50		2.6 kg
2-1/2	inch	6.1	7.8	5.1	3.0	3.4	5.6	0.6	2.8	2.8	0.4	0.4	0.6	2.50	F07	9.6 lb
	mm	154	199	130	77.1	86	143	14	70	70	9	9	14	63		4.4 kg
3	inch	6.9	7.8	5.6	3.5	3.8	6.5	0.6	2.8	2.8	0.4	0.4	0.6	3.00	F07	13.5 lb
	mm	175	199	141	87.6	97	164	14	70	70	9	9	14	76		6.1 kg