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Instrumentation Solutions



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# High Pressure Ball Valves

ZHEJIANG FANGDUN INSTRUMENT VALVE CO., LTD

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# 15B Series 15,000 psi (1034 bar)

## Features

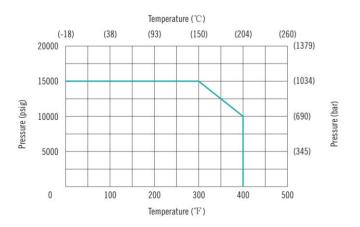
- One-piece, trunnion mounted style, ideal for severe duty applications.
- Two-way and three-way valve configurations.
- PEEK seats offer excellent resistance to chemicals, heat, and wear/abrasion.
- Full-port flow path minimizes pressure drop.
- 316 cold worked stainless steel construction.
- Viton o-rings for operation from 0°F (-17.8°C) to 400°F (204°C).
   Optional o-rings available for high-temperature applications.
- •Wide selection of tube and pipe end fittings available.
- Electric and pneumatic actuator options. Please contact the FD-LOK for details of actuator options.

## **Technical Data**

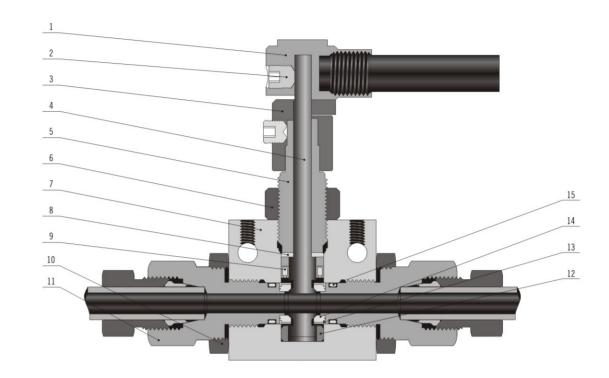
Tube O.D. in.	2-way Orifice Size in. (mm)	3-way Orifice Size in. (mm)	Rated Cv (2-WAY)	Rated Cv (3-WAY)	Pressure/Temperature Rating psi (bar) @ Room Temperature
1/4	0.128 (3.25)	0.128 (3.25)	0.65	0.26	15,000 (1034)
3/8	0.250 (6.35)	0.188 (4.77)	0.96	0.50	15,000 (1034)
1/2	0.250 (6.35)	0.188 (4.77)	1.51	0.50	15,000 (1034)

NPT	2-way Orifice Size in. (mm)	3-way Orifice Size in. (mm)	Rated Cv (2-WAY)	Rated Cv (3-WAY)	Pressure/Temperature Rating psi (bar) @ Room Temperature
1/8	0.250 (6.35)	0.188 (4.77)	1.51	0.50	15,000 (1034)
1/4	0.250 (6.35)	0.188 (4.77)	1.51	0.50	15,000 (1034)
3/8	0.250 (6.35)	0.188 (4.77)	1.51	0.50	15,000 (1034)
1/2	0.250 (6.35)	0.188 (4.77)	1.51	0.50	15,000 (1034)

## Pressure & Temperature Curve



Standard Materials of Construction



ltem	Component	Valve Material
1	Handle	316 SS/A276
2	Set Screw	Stainless Steel
3	Stopping Device	316 SS/A276
4	Ball Stem	316 SS/A479
5	Packing Gland	316 SS/A479
6	Locking Piece	316 SS/A276
7	Valve Body	316 SS/A479
8	Thrust Washer	316 SS/A479
9	Spring Energized seal	Fluorocarbon FKM
10	Lock Nut	316 SS/A276
11	Seat Gland	316 SS/A479
12	Bearing	PEEK
13	Seat Retainer	316 SS/A479
14	Seat	PEEK
15	End Seal	Fluorocarbon FKM
	Lubricant	Copper/molybdenum disulfide

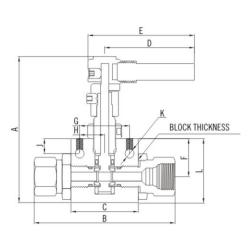
NOTE: Ball valves are not recommended for critical gas applications such as Hydrogen, Helium or other small molecular gases.

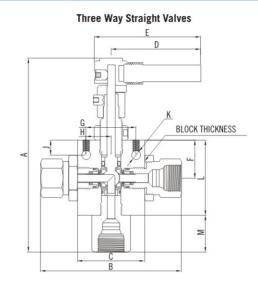
# 15B Series 15,000 psi (1034 bar)

# 15B Series 15,000 psi (1034 bar)

## Dimensions

### **Two Way Straight Valves**





#### **Two Way Straight Valves Dimensions**

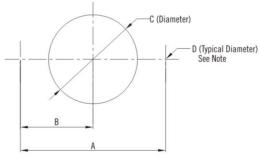
Ordering	Tube OD	NPT	Α	В	C	D	E	F	G	Н	J	K	L	Block Thickness
Number	in.	Size						in	. (mm)					
15BSS-S4-1	1/4													
15BSS-S6-1	3/8													
15BSS-S8-1	1/2													
15BSS-F2-1		1/8	4.33 (109.99)	4.19 (106.49)	2 (50.8)	3.37 (85.55)	3.9 (99.02)	1.13 (28.58)	1.5 (38.1)	0.75 (19.05)	0.43 (10.92)	0.28 (7.11)	1.91 (48.41)	1 (25.4)
15BSS-F4-1		1/4												
15BSS-F6-1		3/8												
15BSS-F8-1		1/2												

#### **Three Way Valves Dimensions**

Ordering	Tube OD	NPT	Α	В	C	D	E	F	G	Н	J	K	L	М	Block Thickness
Number	in.	Size							in. (m	ım)					
15BSS-S4-2	1/4														
15BSS-S6-2	3/8														
15BSS-S8-2	1/2														
15BSS-F2-2		1/8	5.64 (143.35)	4.72 (119.94)	2.5 (63.5)	3.37 (85.55)	3.9 (99.02)	1.13 (28.58)	1.5 (38.1)	0.75 (19.05)	0.43 (10.92)	0.28 (7.11)	2.25 (57.15)	0.97 (24.64)	1 (25.4)
15BSS-F4-2		1/4										50 G.			8 6
15BSS-F6-2		3/8													
15BSS-F8-2		1/2													

### Ball Valve Panel Mounting Dimensions-inches (mm)

Α	В	C	D
1.5	0.75	1.06	0.28
(38.1)	(19.05)	(26.92)	(7.11)



#### All dimensions are for reference only and are subject to change without notice.

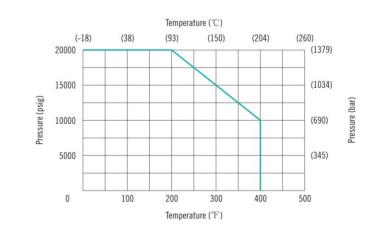
## Features

- One-piece, trunnion mounted style, ideal for severe duty applications.
- Two-way and three-way valve configurations.
- PEEK seats offer excellent resistance to chemicals, heat, and wear/abrasion.
- Full-port flow path minimizes pressure drop.
- 316 cold worked stainless steel construction.
- . Low friction pressure assisted graphite filled Teflon stem seal increases cycle life and reduces operating torque. • Viton o-rings for operation from 0°F (-17.8°C) to 400°F (204°C).
- Optional o-rings available for high-temperature applications.
- · Large selection of tube and pipe end fittings available.
- Electric and pneumatic actuator options. Please contact the FD-LOK for details of actuator options.

## **Technical Data**

Tube O.D. in.	2-way Orifice Size in. (mm)	3-way Orifice Size in. (mm)	Rated Cv (2-WAY)	Rated Cv (3-WAY)	Pressure/Temperature Rating psi (bar) @ Room Temperature
1/4	0.109 (2.77)	0.109 (2.77)	0.65	0.26	20,000 (1379)
3/8	0.203 (5.16)	0.188 (4.77)	0.96	0.50	20,000 (1379)
9/16	0.250 (6.35)	0.188 (4.77)	1.51	0.50	20,000 (1379)

## Pressure & Temperature Curve



NOTE: Ball valves are not recommended for critical gas applications such as Hydrogen, Helium or other small molecular gases.

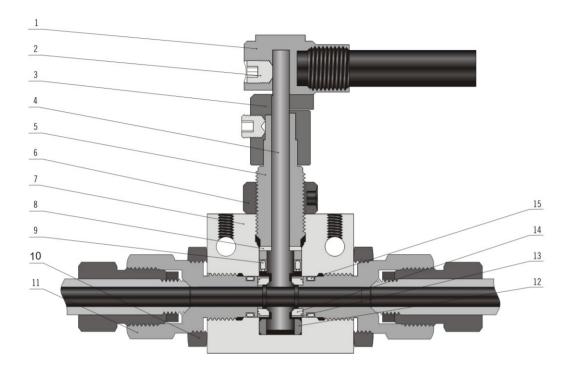
# 20B Series 20,000 psi (1379 bar)

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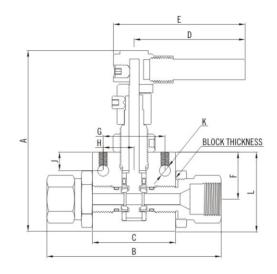
# **Standard Materials of Construction**

## Dimensions

Two Way Straight Valves



Item	Component	Valve Material
1	Handle	316 SS/A276
2	Set Screw	Stainless Steel
3	Stopping Device	316 SS/A276
4	Ball Stem	316 SS/A479
5	Packing Gland	316 SS/A479
6	Locking Piece	316 SS/A276
7	Valve Body	316 SS/A479
8	Thrust Washer	316 SS/A479
9	Spring Energized seal	Fluorocarbon FKM
10	Lock Nut	316 SS/A276
11	Seat Gland	316 SS/A479
12	Bearing	PEEK
13	Seat Retainer	316 SS/A479
14	Seat	PEEK
15	End Seal	Fluorocarbon FKM
	Lubricant	Copper/molybdenum disulfide



Ordering	Tube OD	Α	В	C	D	E	F	G	Н	1	К	L	Block Thickness
Number	in.						in.	(mm)					
20BSS-S4-1	1/4												
20BSS-S6-1	3/8	4.33 (109.99)	4.19 (106.49)	2 (50.8)	3.37 (85.55)	3.9 (99.02)	1.13 (28.58)	1.5 (38.1)	0.75 (19.05)	0.43 (10.92)	0.28 (7.11)	1.91 (48.41)	1 (25.4)
20BSS-S9-1	9/16	,	(,			(,	()	(,	(,	(,	(	(	()

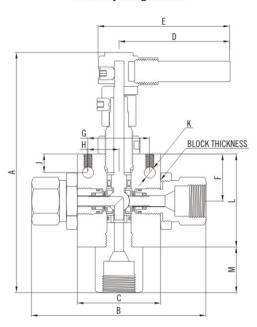
Ordering	Tube OD	Α	В	C	D	E	F	G	Н	1	К	L	М	Block Thickness
Number	in.							in	. (mm)					
20BSS-S4-2	1/4													
20BSS-S6-2	3/8	5.64 (143.35)	4.72 (119.94)	2.5 (63.5)	3.37 (85.55)	3.9 (99.02)	1.13 (28.58)	1.5 (38.1)	0.75 (19.05)	0.43 (10.92)	0.28 (7.11)	2.25 (57.15)	0.97 (24.64)	1 (25.4)
20BSS-S9-2	9/16												1-11-17	

Ball Valve Panel Mounting Dimensions-inches (mm)								
Α	В	C	D					
1.5	0.75	1.06	0.28					
(38.1)	(19.05)	(26.92)	(7.11)					

Note: Body mounting 1/4"-20 thread

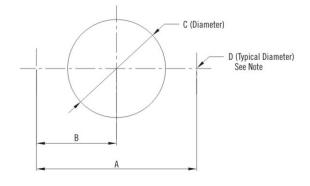
# 20B Series 20,000 psi (1379 bar)

#### Three Way Straight Valves



#### **Two Way Straight Valves Dimensions**

#### **Three Way Valves Dimensions**



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# **Ordering Information**

