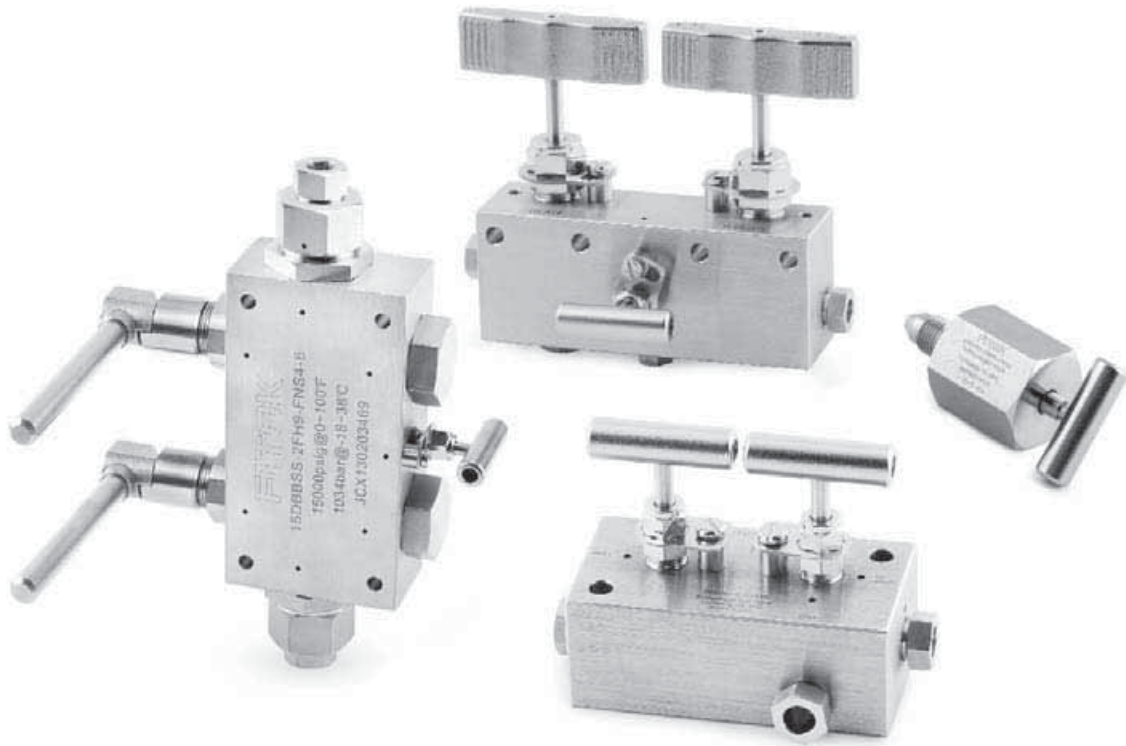


Bleed Valves and Block & Bleed Valves



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Bleed Valves

Pressures to 30,000 psig (2068 bar)

Features

- ⦿ One piece hex construction compact design allows easy installation
- ⦿ Fluorocarbon FKM O-ring for operation from 0°F to 400°F (-17.8°C to 204°C), other O-ring materials available
- ⦿ 1/8" Female NPT outlet connection
- ⦿ High tensile 316 Stainless Steel body material
- ⦿ Easy to assemble and replace O-ring
- ⦿ Positive locking screw design prevents accidental removal of the stem
- ⦿ Tee handle for easy operation

Technical Data

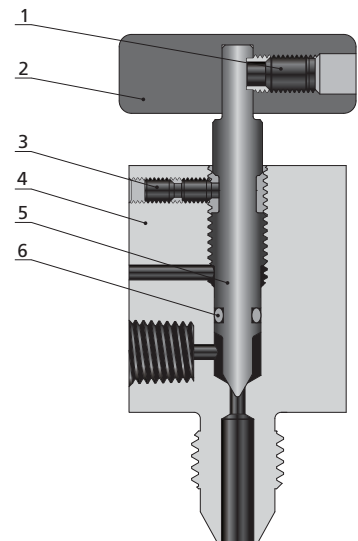
Series	Inlet Connection	Orifice in. (mm)	Working Pressure psig (bar)
15BV	DHM6	0.094 (2.4)	15,000 (1034)
	DHM8	0.094 (2.4)	15,000 (1034)
	DHM9	0.094 (2.4)	15,000 (1034)
20BV	2MP6	0.094 (2.4)	20,000 (1379)
	2MP9	0.094 (2.4)	20,000 (1379)
	2CT6	0.094 (2.4)	20,000 (1379)
	2CT9	0.094 (2.4)	20,000 (1379)
30BV	6MP6	0.094 (2.4)	30,000 (2068)
	6MP9	0.094 (2.4)	30,000 (2068)
	6CT6	0.094 (2.4)	30,000 (2068)
	6CT9	0.094 (2.4)	30,000 (2068)

NOTES: 1. Working pressure shown is in closed position.
 2. Working pressure is 15,000 psig (1034 bar) bar in open position.
 3. A variety of end connections available on request. For connections not shown above, please contact FITOK Group or our authorized distributors.

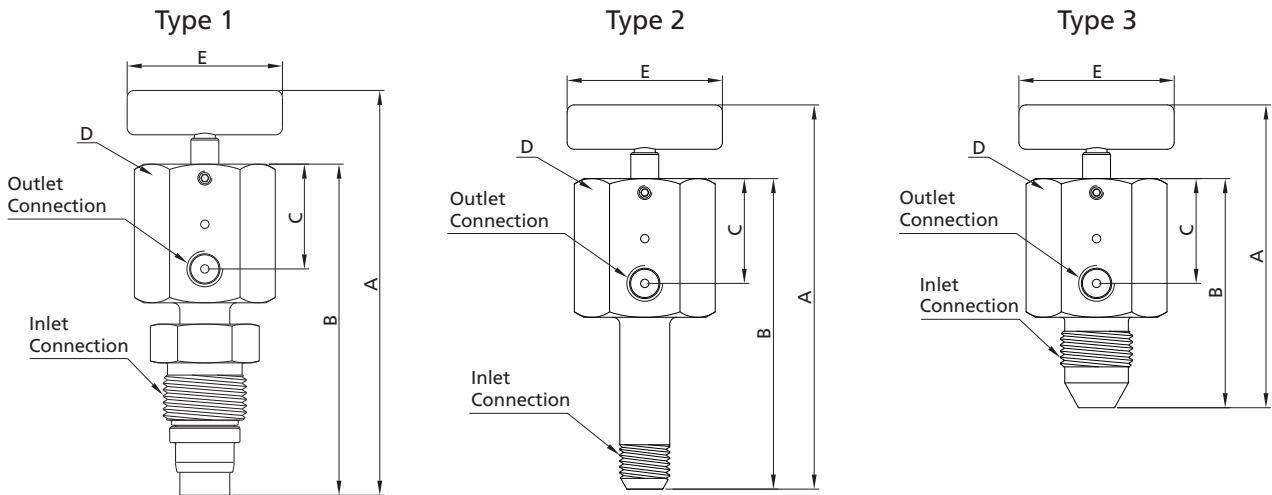
Standard Materials of Construction

Item	Component	Material Grade/ASTM Specification
1	Handle screw	Stainless steel
2	Handle	Stainless steel
3	Locking screw	Stainless steel
4	<i>Body</i>	<i>316 SS/A479</i>
5	<i>Stem</i>	<i>S17400/A564</i>
6	<i>O-ring</i>	<i>Fluorocarbon FKM</i>
	Lubricant	Molybdenum disulfide/Fluorinated-based

Wetted components listed in italics.



Ordering Information and Dimensions



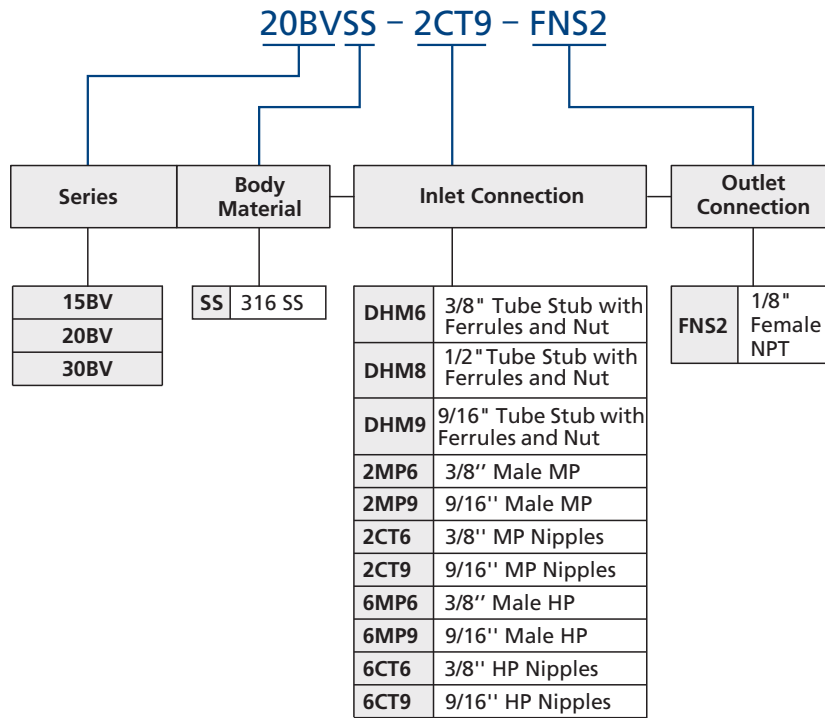
Type 1								
Ordering Number	Inlet Connection	Outlet Connection	Orifice in. (mm)	Dimensions, in. (mm)				
				A	B	C	D	E
15BVSS-DHM6-FNS2	DHM6	FNS2	0.094 (2.4)	3.83 (97.2)	3.04 (77.1)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
15BVSS-DHM8-FNS2	DHM8	FNS2	0.094 (2.4)	3.99 (101.3)	3.11 (78.1)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
15BVSS-DHM9-FNS2	DHM9	FNS2	0.094 (2.4)	4.56 (115.9)	3.73 (94.8)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)

Type 2								
Ordering Number	Inlet Connection	Outlet Connection	Orifice in. (mm)	Dimensions, in. (mm)				
				A	B	C	D	E
20BVSS-2CT6-FNS2	2CT6	FNS2	0.094 (2.4)	3.65 (92.6)	2.81 (71.5)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
20BVSS-2CT9-FNS2	2CT9	FNS2	0.094 (2.4)	3.93 (99.8)	3.10 (78.7)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
30BVSS-6CT6-FNS2	6CT6	FNS2	0.094 (2.4)	3.93 (99.8)	3.10 (78.7)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
30BVSS-6CT9-FNS2	6CT9	FNS2	0.094 (2.4)	4.38 (111.3)	3.55 (90.2)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)

Type 3								
Ordering Number	Inlet Connection	Outlet Connection	Orifice in. (mm)	Dimensions, in. (mm)				
				A	B	C	D	E
20BVSS-2MP6-FNS2	2MP6	FNS2	0.094 (2.4)	3.41 (86.7)	2.58 (65.6)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
20BVSS-2MP9-FNS2	2MP9	FNS2	0.094 (2.4)	3.41 (86.7)	2.58 (65.6)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
30BVSS-6MP6-FNS2	6MP6	FNS2	0.094 (2.4)	3.41 (86.7)	2.58 (65.6)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
30BVSS-6MP9-FNS2	6MP9	FNS2	0.094 (2.4)	3.41 (86.7)	2.58 (65.6)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)

- NOTES: 1. D is the dimension of hex.
 2. A is the dimension of stem in closed position.
 3. All dimensions are for reference only and are subject to change. For dimensions not shown above, please contact FITOK Group or our authorized distributors.

Ordering Number Description



NOTE: "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.

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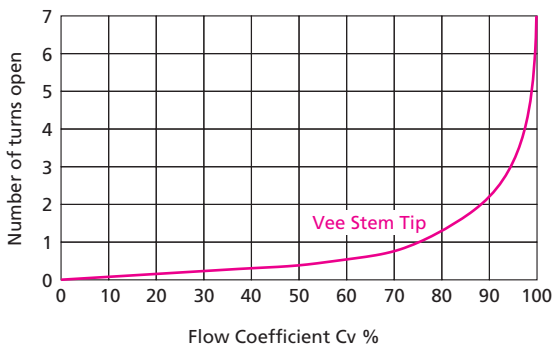
Block & Bleed Needle Valves

Pressures to 20,000 psig (1379 bar)

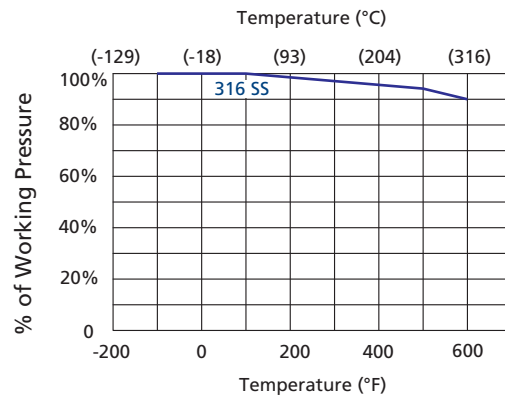
Features

- ⦿ Compact design offers advantages over configurations with multiple valves and fittings
- ⦿ Minimal space needed for installation and operation
- ⦿ Cost savings from fewer components required
- ⦿ Reduced potential for leakage
- ⦿ Metal-to-metal seating achieves ideal shutoff, longer stem/seat service lifetime for abrasive flow, excellent corrosion resistance and greater durability for repeated on/off cycles
- ⦿ Non-rotating stem and bar stock body design
- ⦿ Selected materials of packing gland and upper stem for reduced handle torque and extended thread cycle life
- ⦿ Packing located under stem threads
- ⦿ Reliable locking device for packing gland

Flow Data at 100°F (38°C)



Pressure vs. Temperature Curve



Technical Data

Series	Connection	Orifice in. (mm)	Cv	Working Pressure psig (bar)
15BN	FNS4	0.094 (2.4)	0.20	15,000 (1034)
	FNS6	0.094 (2.4)	0.20	15,000 (1034)
20BN	2FH4	0.094 (2.4)	0.20	20,000 (1379)
	2FH6	0.094 (2.4)	0.20	20,000 (1379)

NOTES: 1. Packing Options

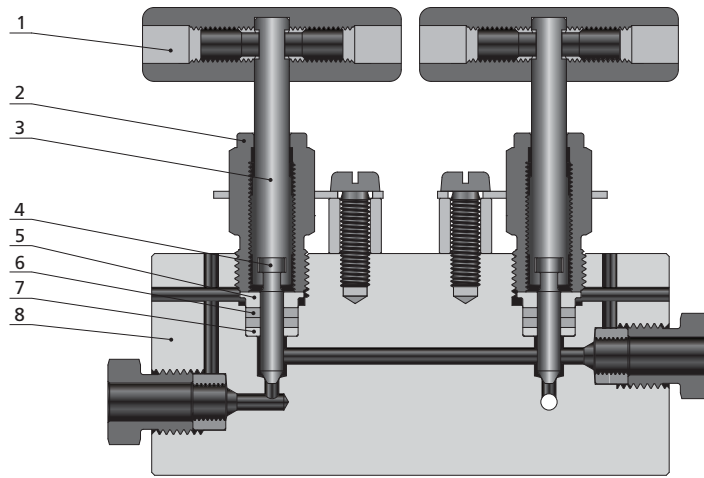
PTFE is the standard packing material, RPTFE glass also available.

PTFE: -100°F~450°F (-73°C~232°C).

RPTFE glass:-100°F~600°F (-73°C~316°C).

2. A variety of end connections are available on request . For connections not shown above, please contact FITOK Group or our authorized distributors.

Standard Materials of Construction



Item	Component	Material Grade/ASTM Specification
1	Handle	Stainless steel
2	Packing Gland	C63000/B150
3	Upper stem	316 SS/A479
4	<i>Lower Stem</i>	<i>S17400/A564</i>
5	Packing Ring	C63000/B150
6	<i>Packing</i>	<i>PTFE/RPTFE</i>
7	<i>Packing washer</i>	<i>S17400/A564</i>
8	<i>Body</i>	<i>316 SS/A479</i>
	Lubricant	Molybdenum disulfide

Wetted components listed in italics.

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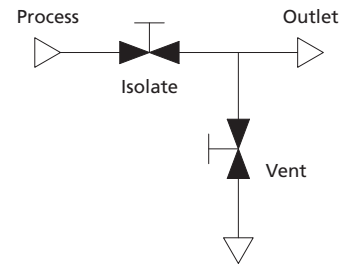
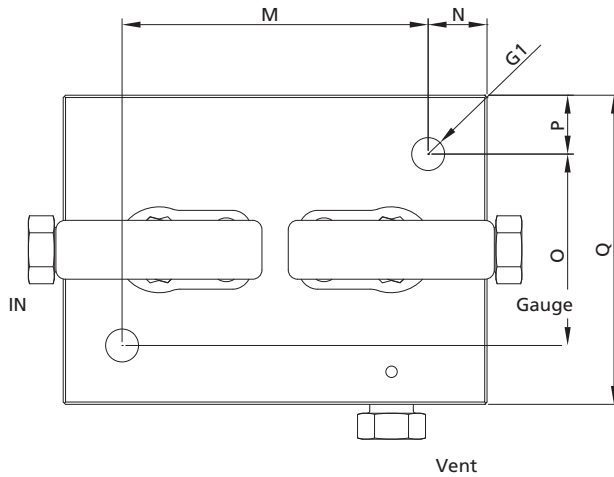
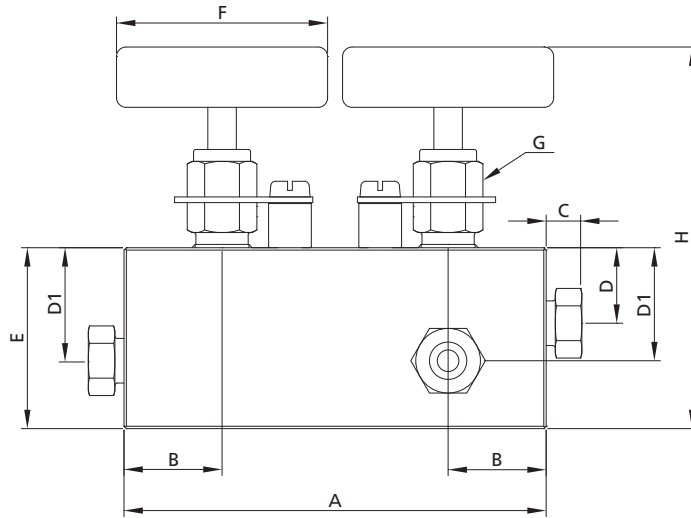
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Ordering Information and Dimensions

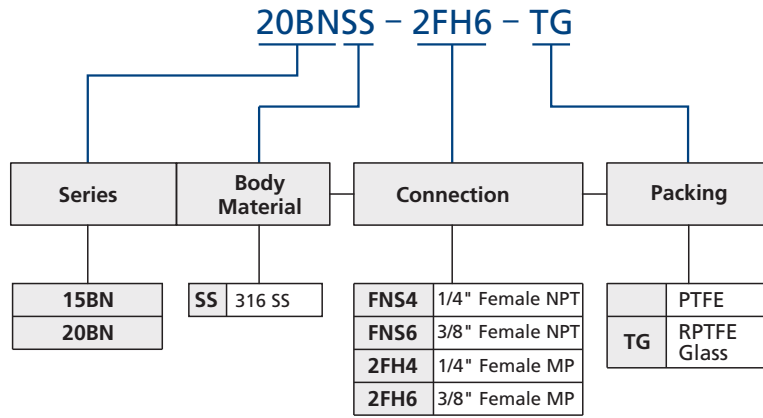


Dimensions																	
Ordering Number	Connection	Orifice in. (mm)	Dimensions, in. (mm)														
			A	B	C	D	D1	E	F	G	G1	H	M	N	O	P	Q
15BNSS-FNS4	FNS4	0.094 (2.4)	3.78 (96.0)	1.00 (25.4)	/	0.81 (20.6)	1.08 (27.5)	1.50 (38.1)	1.75 (44.5)	0.50 (12.7)	0.28 (7.1)	3.26 (82.7)	2.74 (69.5)	0.37 (9.5)	1.25 (31.8)	0.37 (9.5)	2.00 (50.8)
15BNSS-FNS6	FNS6	0.094 (2.4)	3.78 (96.0)	1.00 (25.4)	/	0.81 (20.6)	1.08 (27.5)	1.50 (38.1)	1.75 (44.5)	0.50 (12.7)	0.28 (7.1)	3.26 (82.7)	3.50 (89.1)	0.37 (9.5)	1.25 (31.8)	0.37 (9.5)	2.00 (50.8)
20BNSS-2FH4	2FH4	0.094 (2.4)	3.5 (88.9)	0.81 (20.6)	0.38 (9.7)	0.81 (20.6)	1.08 (27.5)	1.50 (38.1)	1.75 (44.5)	0.50 (12.7)	0.28 (7.1)	3.26 (82.7)	2.74 (69.5)	0.37 (9.5)	1.25 (31.8)	0.37 (9.5)	2.00 (50.8)
20BNSS-2FH6	2FH6	0.094 (2.4)	3.88 (98.5)	1.00 (25.4)	0.44 (11.1)	0.81 (20.6)	1.08 (27.5)	1.50 (38.1)	1.75 (44.5)	0.50 (12.7)	0.28 (7.1)	3.26 (82.7)	3.50 (89.1)	0.37 (9.5)	1.25 (31.8)	0.37 (9.5)	2.00 (50.8)

- NOTES: 1. G is the drill dimension of packing gland mounting hole.
 2. G1 is the panel mounting drill size.
 3. H is the dimension of stem in closed position.
 4. All dimensions are for reference only and are subject to change. For dimensions not shown above, please contact FITOK Group or our authorized distributors.

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NOTE: "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.

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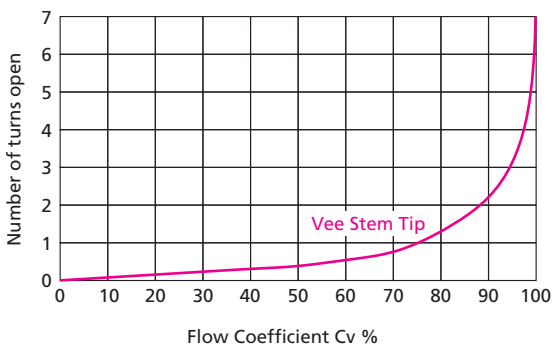
Double Block & Bleed Needle Valves

Pressures to 20,000 psig (1379 bar)

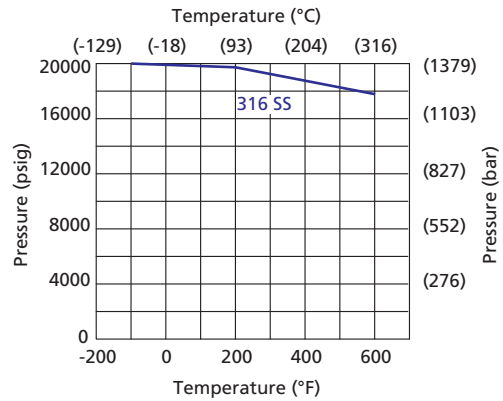
Features

- Compact design provides large valve performance in a small package
- Reduced potential for leakage
- Metal-to-metal seating achieves ideal shutoff, longer stem/seat service lifetime for abrasive flow, excellent corrosion resistance and greater durability for repeated on/off cycles
- Non-rotating stem and bar stock body design
- Selected materials of packing gland and upper stem for reduced handle torque and extended thread cycle life
- Packing located under stem threads
- Reliable locking device for packing gland
- Wide selection of tube and pipe end fittings available

Flow Data at 100°F (38°C)



Pressure vs. Temperature Curve



Technical Data

Series	Connection Type (Inlet and Outlet)	Vent Connection	Orifice in. (mm)	Cv	Working Pressure psig (bar)
20DBN	2FH4	2FH4	0.094 (2.4)	0.10	20,000 (1379)
	2FH6	2FH4	0.094 (2.4)	0.27	20,000 (1379)
	2FH9	2FH4	0.094 (2.4)	0.27	20,000 (1379)
	6FH9	2FH4	0.094 (2.4)	0.27	20,000 (1379)

Notes: 1. Packing Options

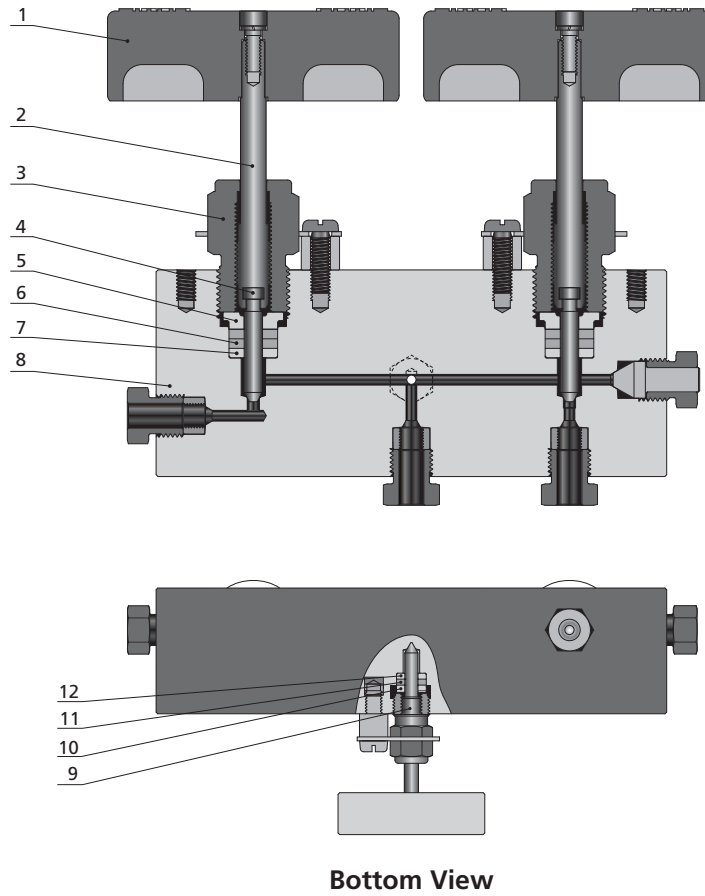
PTFE is the standard packing material, RPTFE glass also available.

PTFE: -100°F~450°F (-73°C~232°C).

RPTFE glass: -100°F~600°F (-73°C~316°C).

2. A variety of end connections are available on request. For connections not shown above, please contact FITOK Group or our authorized distributors.

Standard Materials of Construction



Item	Component	Material Grade/ASTM Specification
1	Handle	Stainless steel
2	Upper stem	316 SS/A479
3	Packing Gland	C63000/B150
4	<i>Lower Stem</i>	<i>S17400/A564</i>
5	<i>Packing Ring</i>	<i>C63000/B150</i>
6	<i>Packing</i>	<i>PTFE/RPTFE</i>
7	<i>Packing washer</i>	<i>S17400/A564</i>
8	<i>Body</i>	<i>316 SS/A479</i>
9	<i>Vent valve stem</i>	<i>S17400/A564</i>
10	<i>Vent valve Ring</i>	<i>C63000/B150</i>
11	<i>Vent valve Packing</i>	<i>PTFE/RPTFE</i>
12	<i>Vent valve Packing washer</i>	<i>S17400/A564</i>
	Lubricant	Molybdenum disulfide

Wetted components listed in italics.

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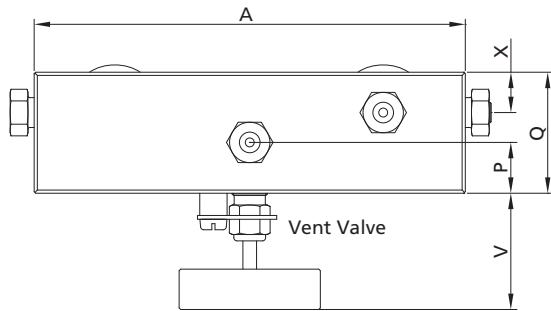
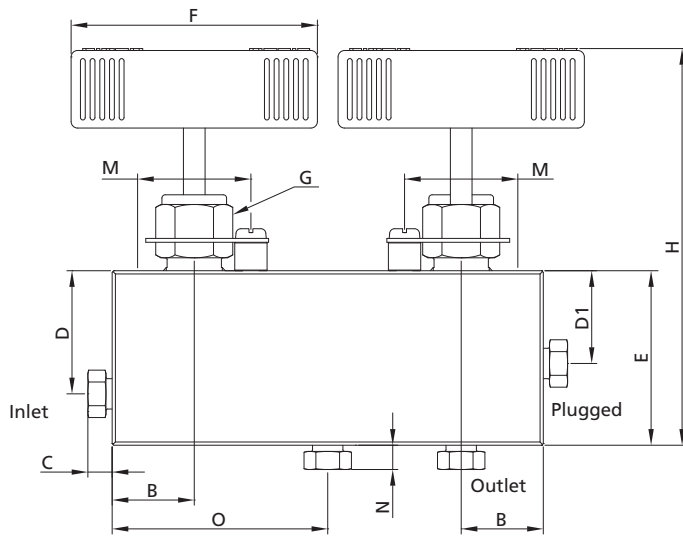
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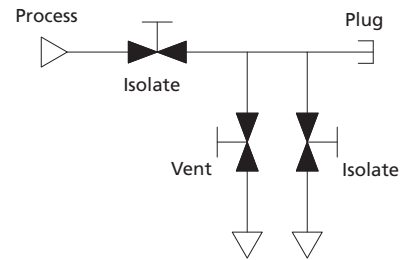
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Ordering Information and Dimensions



Bottom View

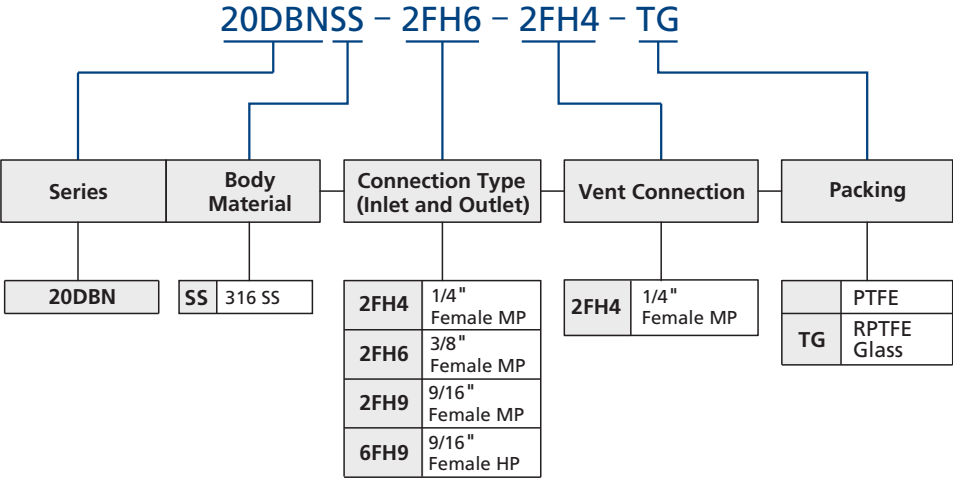


Dimensions																		
Ordering Number	Connection Type (Inlet and Outlet)	Orifice in. (mm)	Dimensions, in. (mm)															
			A	B	C	D	D1	E	F	G	H	M	N	O	P	Q	V	X
20DBNSS-2FH4-2FH4	2FH4	0.094 (2.4)	5.25 (133.4)	1.00 (25.4)	0.38 (9.65)	1.50 (38.1)	1.13 (28.7)	2.13 (54.1)	3.00 (76.2)	0.81 (20.6)	4.65 (118.1)	0.69 (17.5)	0.50 (12.7)	2.62 (66.7)	0.63 (16.0)	1.50 (38.1)	1.43 (36.3)	0.50 (12.7)
20DBNSS-2FH6-2FH4	2FH6	0.094 (2.4)	5.25 (133.4)	1.00 (25.4)	0.44 (11.2)	1.50 (38.1)	1.13 (28.7)	2.13 (54.1)	3.00 (76.2)	0.81 (20.6)	4.65 (118.1)	0.69 (17.5)	0.50 (12.7)	2.62 (66.7)	0.63 (16.0)	1.50 (38.1)	1.43 (36.3)	0.50 (12.7)
20DBNSS-2FH9-2FH4	2FH9	0.094 (2.4)	5.88 (149.4)	1.31 (33.3)	0.55 (14.0)	1.50 (38.1)	1.13 (28.7)	3.00 (76.2)	3.00 (76.2)	0.81 (20.6)	5.53 (140.5)	0.69 (17.5)	0.50 (12.7)	2.94 (74.7)	0.63 (16.0)	1.75 (44.5)	1.43 (36.3)	0.75 (19.1)
20DBNSS-6FH9-2FH4	6FH9	0.094 (2.4)	5.88 (149.4)	1.31 (33.3)	0.95 (24.1)	1.50 (38.1)	1.13 (28.7)	3.00 (76.2)	3.00 (76.2)	0.81 (20.6)	5.53 (140.5)	0.69 (17.5)	0.50 (12.7)	2.94 (74.7)	0.63 (16.0)	1.75 (44.5)	1.43 (36.3)	0.75 (19.1)

- NOTES: 1. Vent Connection: 1/4" Female MP.
 2. G is the drill dimension of packing gland mounting hole.
 3. G1 is the panel mounting drill size.
 4. H is the dimension of stem in closed position.
 5. All dimensions are for reference only and are subject to change. For dimensions not shown above, please contact FITOK Group or our authorized distributors.

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NOTE: "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.

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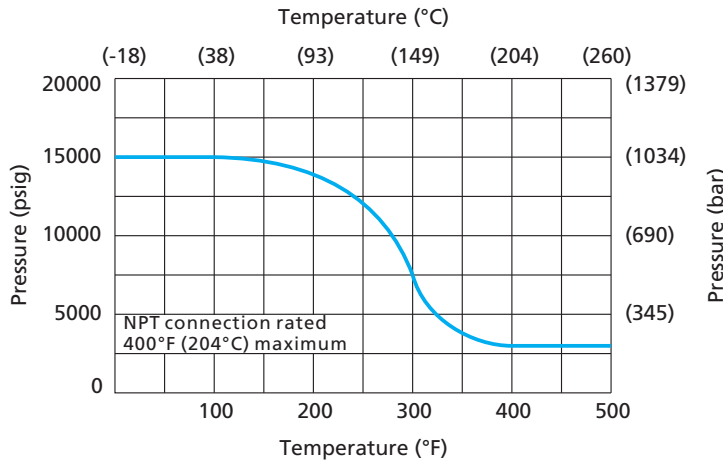
Double Block & Bleed Ball Valves

Pressures to 15,000 psig (1034 bar)

Features

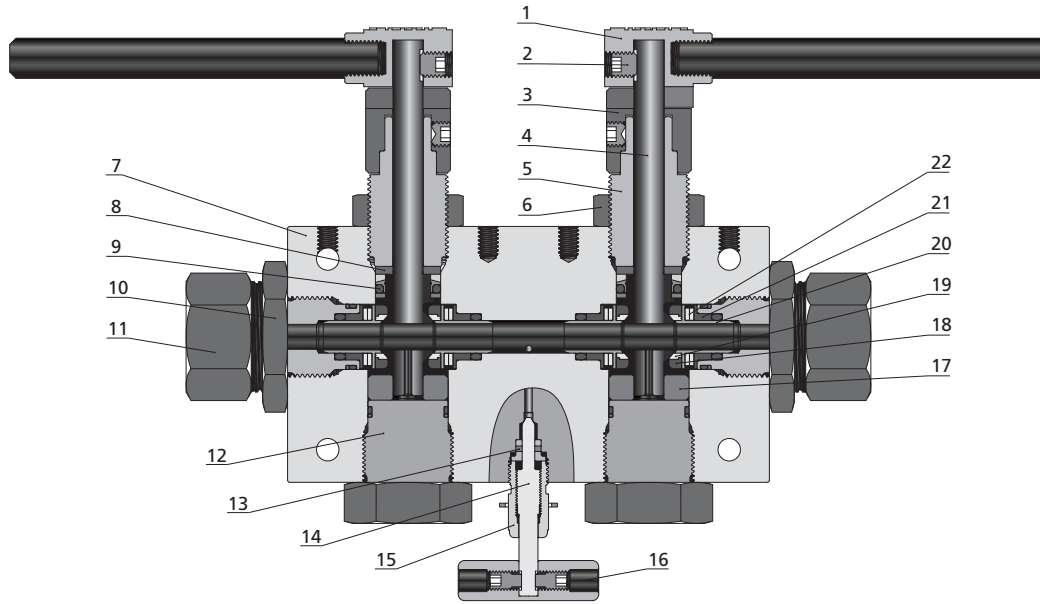
- ⦿ Working temperature range from 0°F to 400°F (-17.8°C to 204°C) with Fluorocarbon FKM O-rings, other O-ring materials available
- ⦿ High tensile 316 Stainless Steel body material
- ⦿ Carbon filled PEEK seats to offer excellent resistance to chemicals, heat and abrasion
- ⦿ One piece, trunnion mounted stem design
- ⦿ Full-port flow path to minimize pressure drop
- ⦿ Vee-stem vent valve
- ⦿ Wide selection of tube and pipe end fittings available
- ⦿ Quarter turn from open to close with positive stop

Pressure vs. Temperature Curve



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

Standard Materials of Construction



Item	Component	Material Grade/ASTM Specification
1	Handle	Stainless Steel
2	Set Screw	Stainless Steel
3	Stopping Device	316 SS/A479
4	Stem	316 SS/A479
5	Packing Gland	316 SS/A479
6	Locking Piece	316 SS/A479
7	Valve Body	316 SS/A479
8	Thrust Washer	C63000/B150
9	Combination Seal	Fluorocarbon FKM
10	Lock Nut	316 SS/A479
11	Seat Gland	316 SS/A479
12	Bottom Gland	316 SS/A479
13	Vent Valve Packing	PTFE
14	Vent Valve Stem	S17400/A564
15	Vent Valve Packing Gland	C63000/B150
16	Vent Valve Handle	Stainless Steel
17	Bearing	PEEK
18	Seat Retainer	S17400/A564
19	Seat	Carbon Filled PEEK
20	Support	316 SS/A479
21	Belleville Backup	S17400/A564
22	Belleville Washers	S17700/A693
	Lubricant	Molybdenum Disulfide/Fluorinated-based

Wetted components listed in italics.

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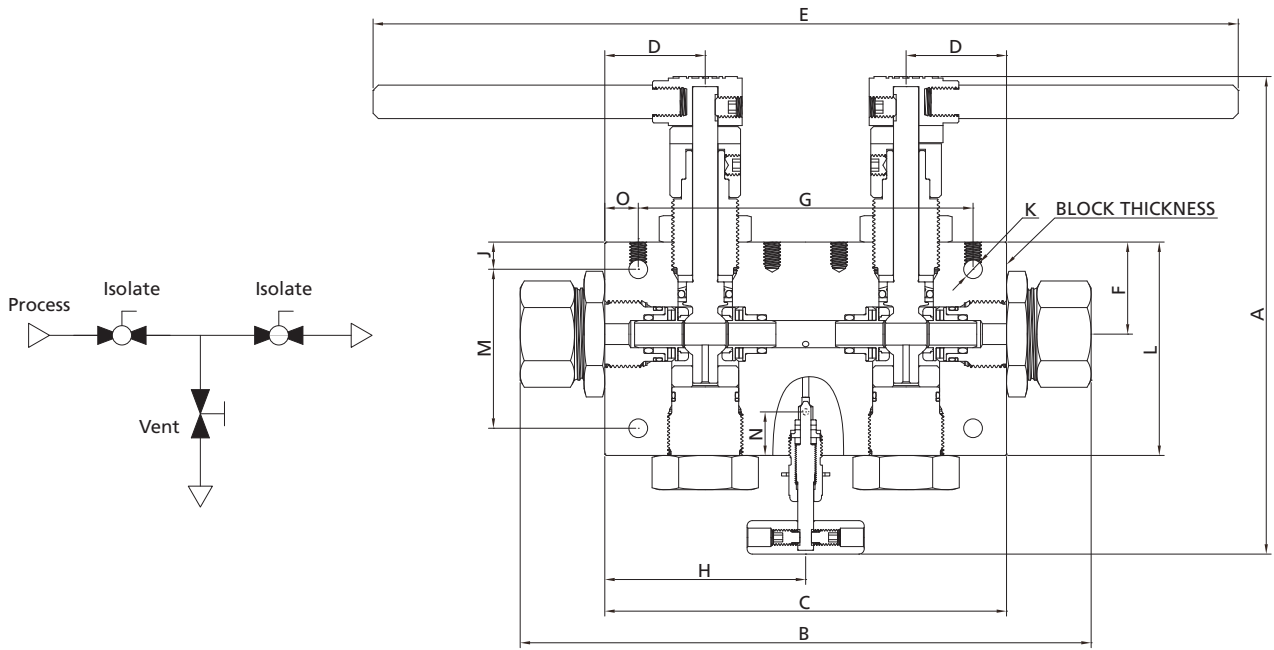
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Dimensions

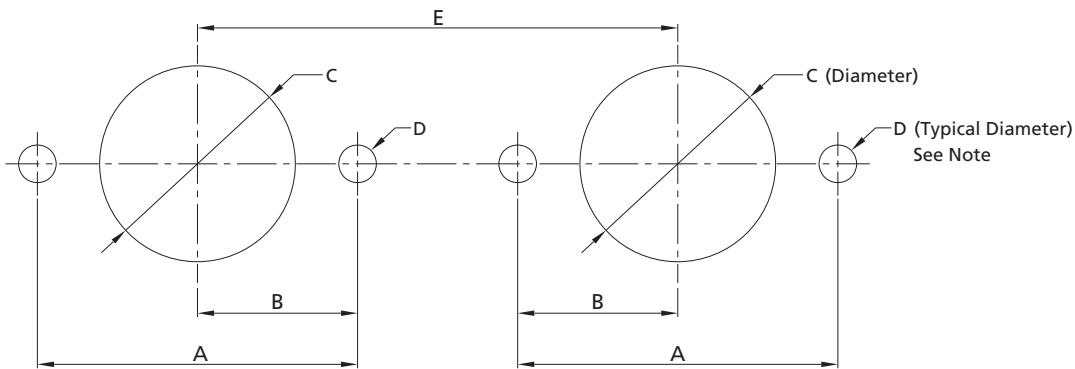


Dimensions, in. (mm)

A	B	C	D	E	F	G	H	J	K	L	M	N ^①	O	Block Thickness
7.14 (181.4)	8.81 (223.8)	6 (152.4)	1.5 (38.1)	12.94 (328.7)	1.38 (34.9)	5 (127)	3 (76.2)	0.41 (10.3)	0.28 (7.1)	3.19 (81)	2.38 (60.4)	0.65 (16.5)	0.5 (12.7)	1.75 (44.45)

① N: Vent connection on back side.

Panel Mounting Dimensions



Dimensions, in. (mm)

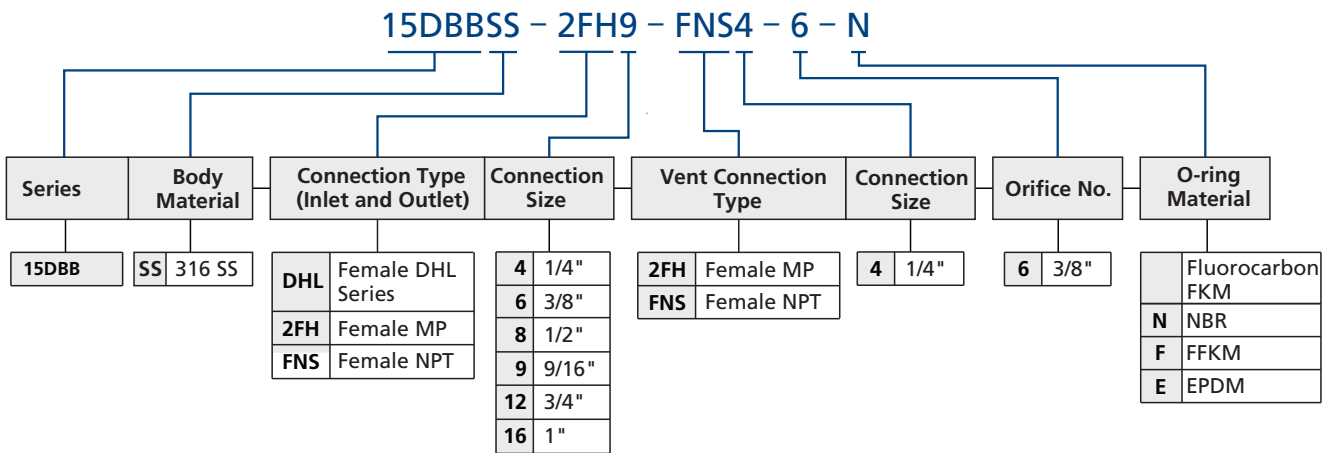
A	B	C	D	E
2 (50.8)	1 (25.4)	1.5 (38.1)	0.28 (7.1)	3 (76.2)

NOTE: 1. Body mounting 1/4-20 thread.
2. All dimensions are for reference only and are subject to change.

Ordering Information and Dimensions

Series	Ordering Number	Connection Type (Inlet and Outlet)	Vent Connection	Orifice No.	Orifice Size in. (mm)	Cv	Working Pressure psig (bar)
15DBB	15DBBSS-DHL8-FNS4-6	DHL8	FNS4	6	0.33 (8.3)	2.3	15,000 (1034)
	15DBBSS-2FH4-2FH4-6	2FH4	2FH4		0.20 (5.2)	0.9	
	15DBBSS-2FH6-2FH4-6	2FH6	2FH4		0.30 (7.9)	2.1	
	15DBBSS-2FH9-2FH4-6	2FH9	2FH4		0.33 (8.3)	2.3	
	15DBBSS-2FH9-FNS4-6	2FH9	FNS4		0.33 (8.3)	2.3	
	15DBBSS-2FH12-2FH4-6	2FH12	2FH4		0.33 (8.3)	2.3	
	15DBBSS-2FH16-FNS4-6	2FH16	FNS4		0.33 (8.3)	2.3	
	15DBBSS-FNS4-FNS4-6	FNS4	FNS4		0.33 (8.3)	2.3	
	15DBBSS-FNS6-FNS4-6	FNS6	FNS4		0.33 (8.3)	2.3	
	15DBBSS-FNS8-FNS4-6	FNS8	FNS4		0.33 (8.3)	2.3	

Ordering Number Description



NOTE: "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.

Code	O-ring Material	Working temperature Range, °F (°C)
	Fluorocarbon FKM	0 to 400 (-17.8 to 204)
N	NBR	-10 to 250 (-23 to 121)
F	FFKM	-20 to 500 (-29 to 260)
E	EPDM	-50 to 300 (-45 to 148)

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