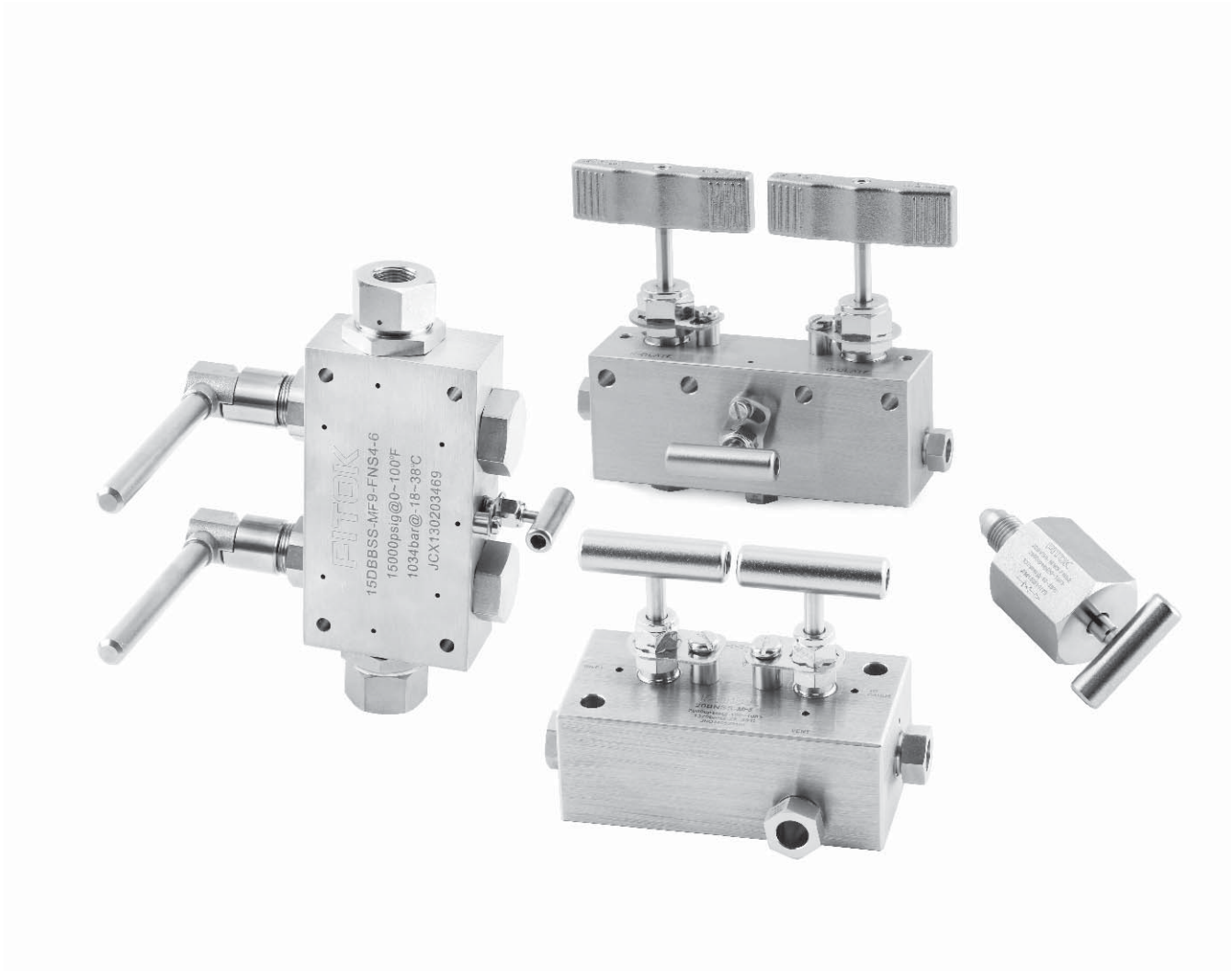


Bleed Valves and Block & Bleed Valves



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Contents

Fittings	<p>Bleed Valves</p> <p>Working pressure up to 30,000 psig (2068 bar) E-87</p> <hr/>
Tubing	<p>Block & Bleed Needle Valves</p> <p>Working pressure up to 20,000 psig (1379 bar) E-90</p> <hr/>
Quick Couplings	<p>Double Block & Bleed Needle Valves</p> <p>Working pressure up to 20,000 psig (1379 bar) E-94</p> <hr/>
Line Filters	<p>Double Block & Bleed Ball Valves</p> <p>Working pressure up to 15,000 psig (1034 bar) E-98</p> <hr/>
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Bleed Valves

Working pressure up 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)
- ⦿ 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

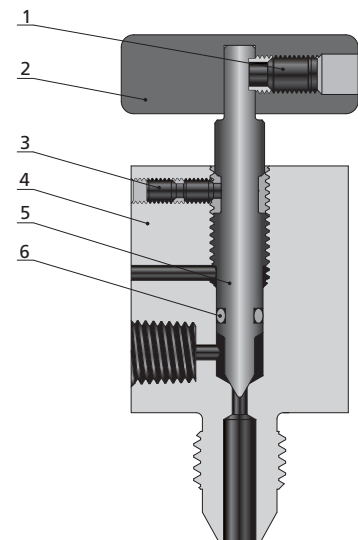
Series	Inlet Connection	Orifice in. (mm)	Working Pressure psig (bar)
15BV	DFT6	0.094 (2.4)	15,000 (1034)
	DFT8	0.094 (2.4)	15,000 (1034)
	DFT9	0.094 (2.4)	15,000 (1034)
20BV	MM6	0.094 (2.4)	20,000 (1379)
	MM9	0.094 (2.4)	20,000 (1379)
	MCT6	0.094 (2.4)	20,000 (1379)
	MCT9	0.094 (2.4)	20,000 (1379)
30BV	HM6	0.094 (2.4)	30,000 (2068)
	HM9	0.094 (2.4)	30,000 (2068)
	HCT6	0.094 (2.4)	30,000 (2068)
	HCT9	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
1	Handle screw	Stainless steel
2	Handle	Stainless steel
3	Locking screw	Stainless steel
4	<i>Body</i>	<i>316 SS</i>
5	<i>Stem</i>	<i>S17400</i>
6	<i>O-ring</i>	<i>Fluorocarbon FKM</i>
	Lubricant	Molybdenum disulfide/Fluorinated-based

Wetted components listed in italics.



FITOK

Fittings

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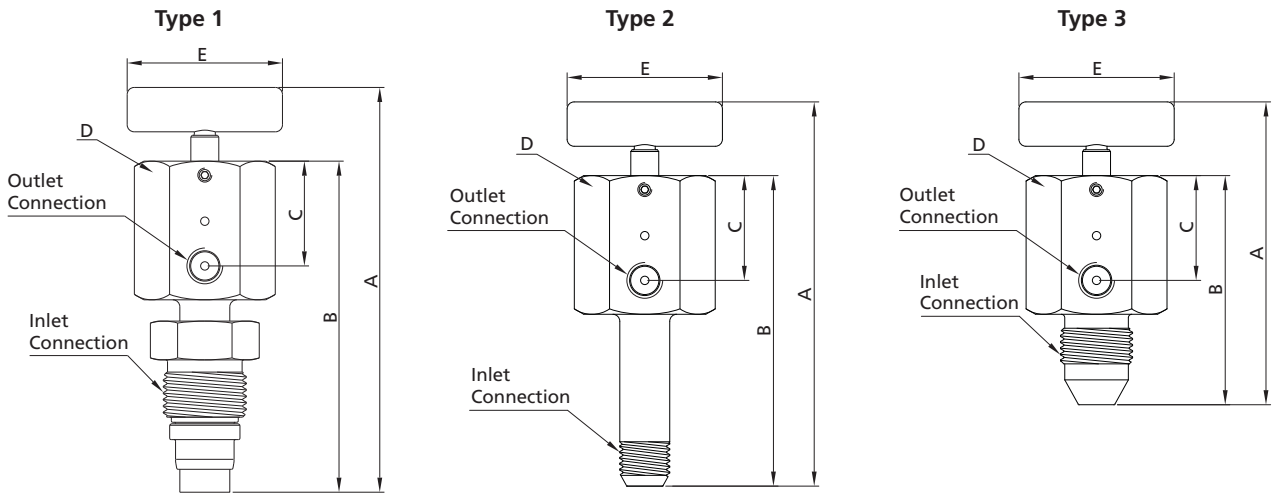
Subsea Valves

Tools and Installation Instructions

Technical Information

Part Number Crossover Charts

Ordering Information and Dimensions



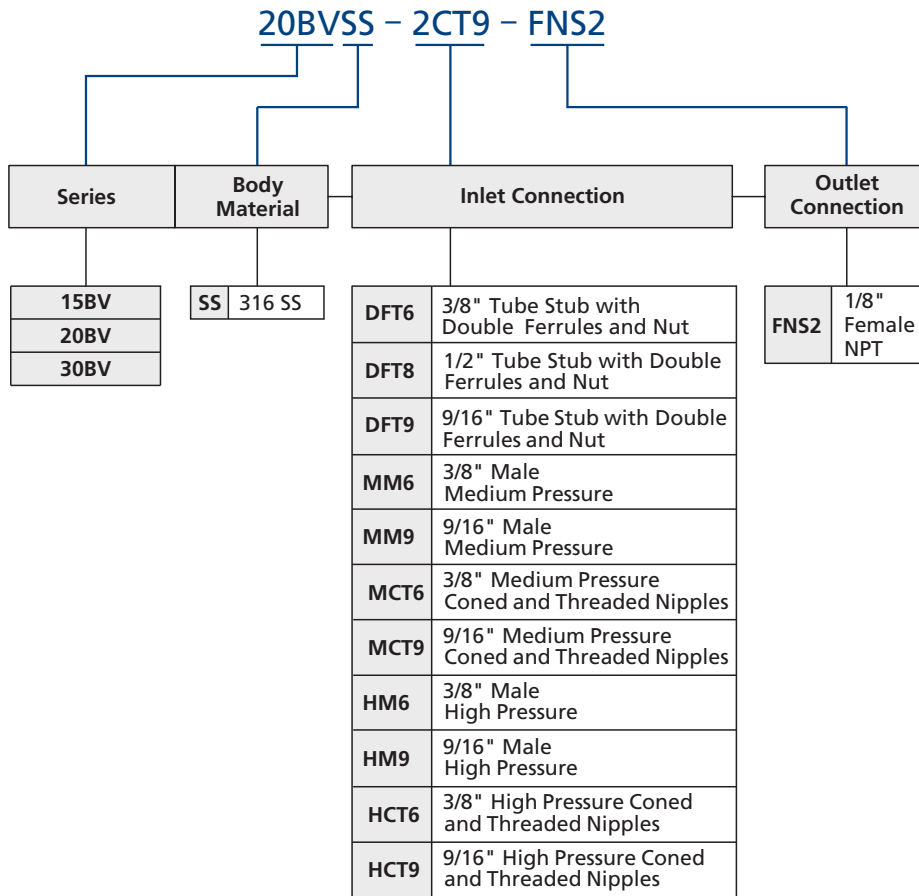
Type 1								
Ordering Number	Inlet Connection	Outlet Connection	Orifice in. (mm)	Dimensions, in. (mm)				
				A	B	C	D	E
15BVSS-DFT6-FNS2	DFT6	FNS2	0.094 (2.4)	3.94 (100.1)	3.11 (78.9)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
15BVSS-DFT8-FNS2	DFT8	FNS2	0.094 (2.4)	4.10 (104.1)	3.26 (82.9)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
15BVSS-DFT9-FNS2	DFT9	FNS2	0.094 (2.4)	4.54 (115.4)	3.71 (94.2)	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-MCT6-FNS2	MCT6	FNS2	0.094 (2.4)	3.61 (91.7)	2.78 (70.5)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
20BVSS-MCT9-FNS2	MCT9	FNS2	0.094 (2.4)	3.82 (97.0)	2.98 (75.8)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
30BVSS-HCT6-FNS2	HCT6	FNS2	0.094 (2.4)	4.09 (103.9)	3.26 (82.7)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
30BVSS-HCT9-FNS2	HCT9	FNS2	0.094 (2.4)	4.68 (118.9)	3.85 (97.7)	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-MM6-FNS2	MM6	FNS2	0.094 (2.4)	3.23 (82.0)	2.39 (60.8)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
20BVSS-MM9-FNS2	MM9	FNS2	0.094 (2.4)	3.42 (86.8)	2.58 (65.6)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
30BVSS-HM6-FNS2	HM6	FNS2	0.094 (2.4)	3.27 (83.1)	2.44 (61.9)	1.18 (30.0)	1.37 (34.9)	1.75 (44.5)
30BVSS-HM9-FNS2	HM9	FNS2	0.094 (2.4)	3.44 (87.4)	2.61 (66.2)	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



- NOTES: 1. For more details regarding Medium/High Pressure connections, please see **Connection Information** on I-02.
 2. "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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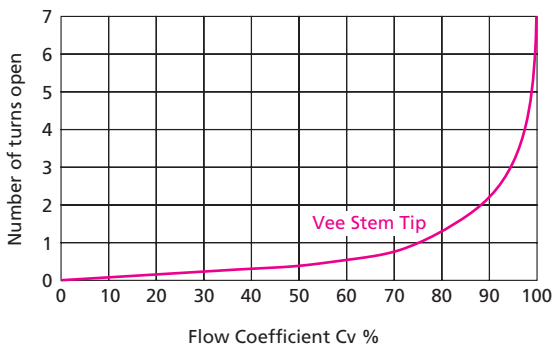
Block & Bleed Needle Valves

Working pressure up to 20,000 psig (1379 bar)

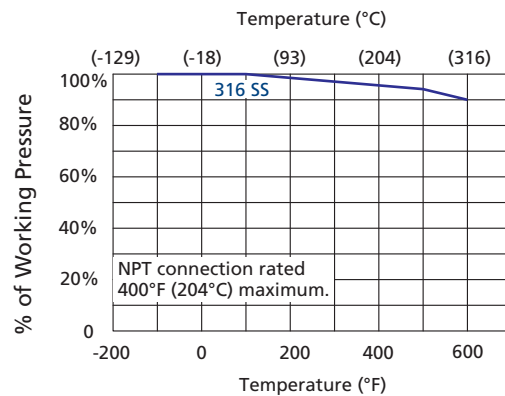
Features

- ⦿ 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
- ⦿ Reliable packing gland locking device

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	MF4	0.094 (2.4)	0.20	20,000 (1379)
	MF6	0.094 (2.4)	0.20	20,000 (1379)

NOTES: 1. Packing Options

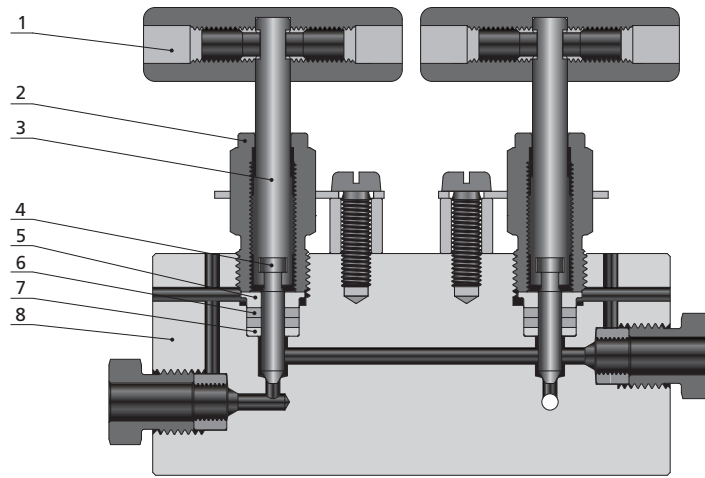
PTFE is the standard packing material, RPTFE glass also available.

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
1	Handle	Stainless Steel
2	Packing Gland	C63000
3	Upper stem	316 SS
4	<i>Lower Stem</i>	<i>S17400</i>
5	Packing Ring	C63000
6	<i>Packing</i>	<i>PTFE/RPTFE</i>
7	<i>Packing washer</i>	<i>S17400</i>
8	<i>Body</i>	<i>316 SS</i>
	Lubricant	Molybdenum disulfide

Wetted components listed in italics.

Fittings

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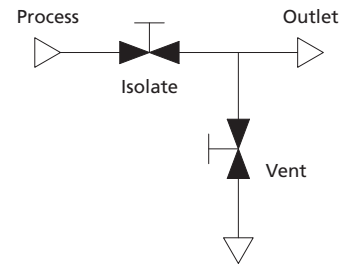
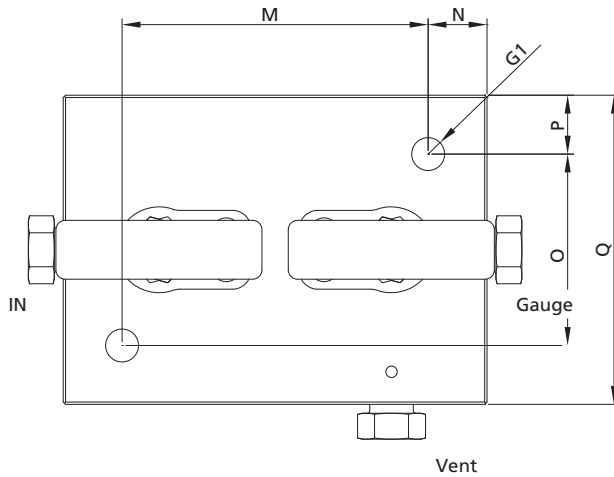
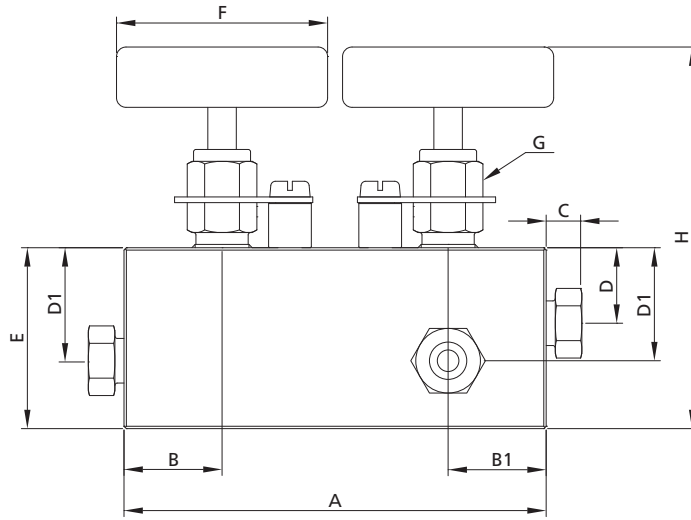
Subsea Valves

Tools and Installation Instructions

Technical Information

Part Number Crossover Charts

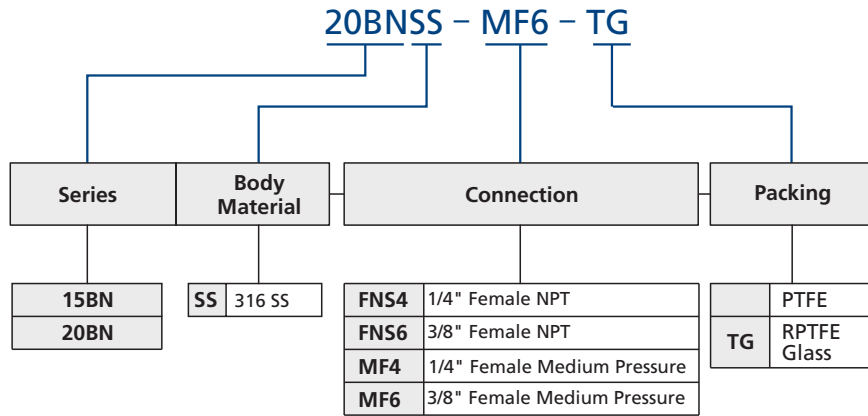
Ordering Information and Dimensions



Dimensions																		
Ordering Number	Connection	Orifice in. (mm)	Dimensions, in. (mm)															
			A	B	B1	C	D	D1	E	F	G	G1	H	M	N	O	P	Q
15BNSS-FNS4	FNS4	0.094 (2.4)	3.78 (96.0)	0.90 (22.9)	1.00 (25.4)	/	0.81 (20.6)	1.08 (27.5)	1.50 (38.1)	1.75 (44.5)	0.63 (15.9)	0.28 (7.1)	3.26 (82.7)	3.03 (77.0)	0.37 (9.5)	1.25 (31.8)	0.37 (9.5)	2.00 (50.8)
15BNSS-FNS6	FNS6	0.094 (2.4)	3.88 (98.5)	1.00 (25.4)	1.00 (25.4)	/	0.81 (20.6)	1.08 (27.5)	1.58 (40.2)	1.75 (44.5)	0.63 (15.9)	0.28 (7.1)	3.34 (84.8)	3.13 (79.5)	0.37 (9.5)	1.25 (31.8)	0.37 (9.5)	2.00 (50.8)
20BNSS-MF4	MF4	0.094 (2.4)	3.5 (88.9)	0.81 (20.6)	0.81 (20.6)	0.38 (9.7)	0.81 (20.6)	1.08 (27.5)	1.50 (38.1)	1.75 (44.5)	0.63 (15.9)	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-MF6	MF6	0.094 (2.4)	3.88 (98.5)	1.00 (25.4)	1.00 (25.4)	0.44 (11.2)	0.81 (20.6)	1.08 (27.5)	1.50 (38.1)	1.75 (44.5)	0.63 (15.9)	0.28 (7.1)	3.26 (82.7)	3.13 (79.5)	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.

Ordering Number Description



- NOTES: 1. For more details regarding Medium Pressure connections, please see **Connection Information** on I-02.
 2. "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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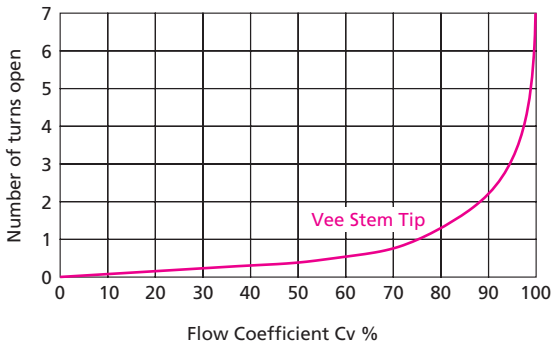
Double Block & Bleed Needle Valves

Working pressure up to 20,000 psig (1379 bar)

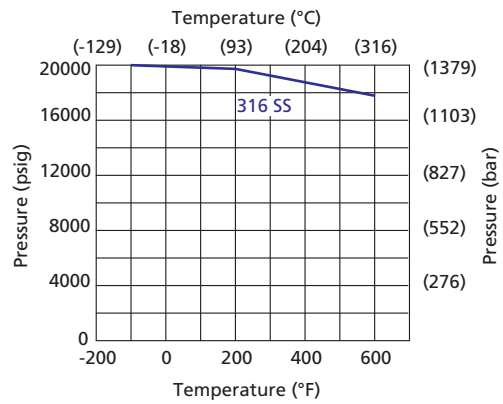
Features

- 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
- Reliable packing gland locking device

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	MF4	MF4	0.094 (2.4)	0.10	20,000 (1379)
	MF6	MF4	0.094 (2.4)	0.27	20,000 (1379)
	MF9	MF4	0.094 (2.4)	0.27	20,000 (1379)
	HF9	MF4	0.094 (2.4)	0.27	20,000 (1379)

NOTES: 1. Packing Options

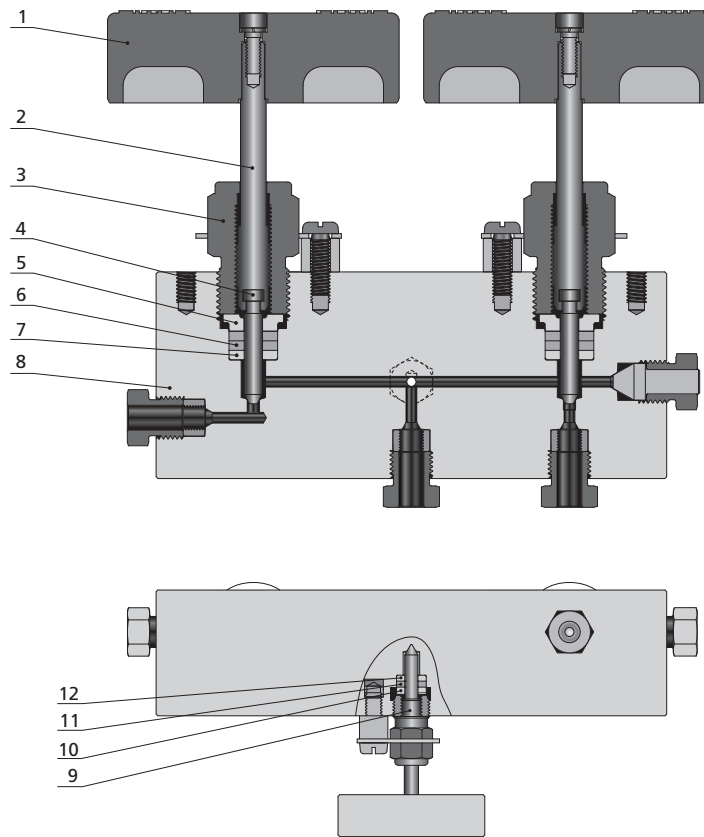
PTFE is the standard packing material, RPTFE glass also available.

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



Bottom View

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

Wetted components listed in italics.

Fittings

Tubing

Quick Couplings

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Valves

Sour Service Products

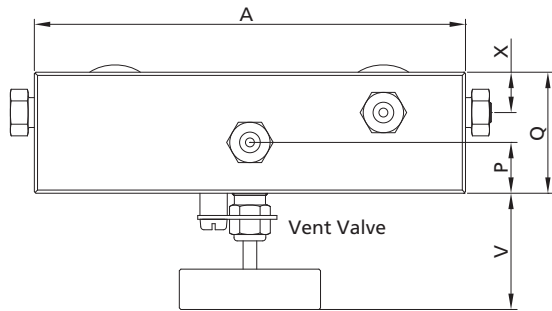
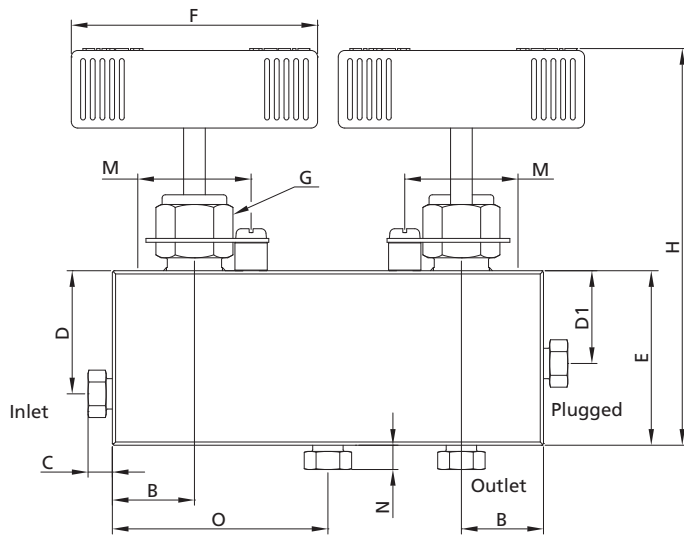
Subsea Valves

Tools and Installation Instructions

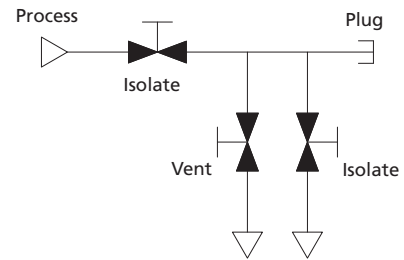
Technical Information

Part Number Crossover Charts

Ordering Information and Dimensions



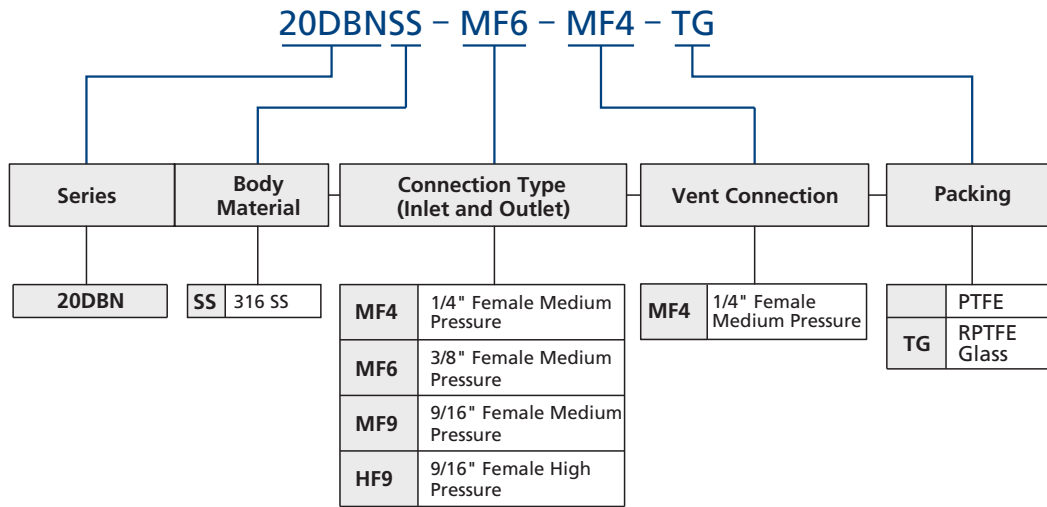
Bottom View



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-MF4-MF4	MF4	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)	1.00 (25.4)	4.82 (122.4)	1.38 (35.1)	0.50 (12.7)	2.62 (66.7)	0.63 (16.0)	1.50 (38.1)	1.47 (37.4)	0.50 (12.7)
20DBNSS-MF6-MF4	MF6	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)	1.00 (25.4)	4.82 (122.4)	1.38 (35.1)	0.50 (12.7)	2.62 (66.7)	0.63 (16.0)	1.50 (38.1)	1.47 (37.4)	0.50 (12.7)
20DBNSS-MF9-MF4	MF9	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)	1.00 (25.4)	5.69 (144.5)	1.38 (35.1)	0.50 (12.7)	2.94 (74.7)	0.63 (16.0)	1.75 (44.5)	1.47 (37.4)	0.75 (19.1)
20DBNSS-HF9-MF4	HF9	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)	1.00 (25.4)	5.69 (144.5)	1.38 (35.1)	0.50 (12.7)	2.94 (74.7)	0.63 (16.0)	1.75 (44.5)	1.47 (37.4)	0.75 (19.1)

- NOTES: 1. Vent connection: 1/4" Female Medium Pressure.
 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.

Ordering Number Description



- NOTES: 1. For more details regarding Medium/High Pressure connections, please see **Connection Information** on I-02.
 2. "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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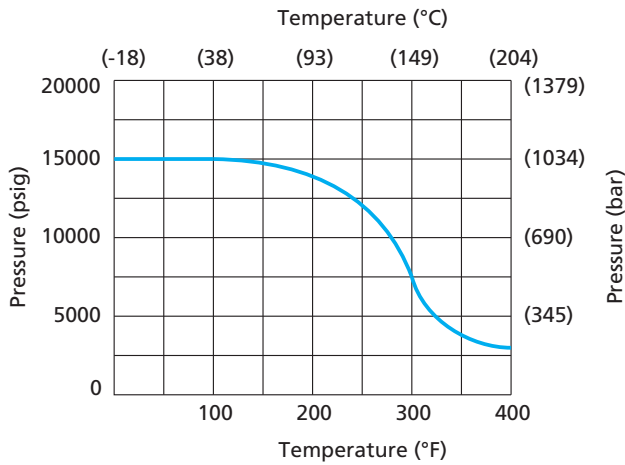
Double Block & Bleed Ball Valves

Working pressure up to 15,000 psig (1034 bar)

Features

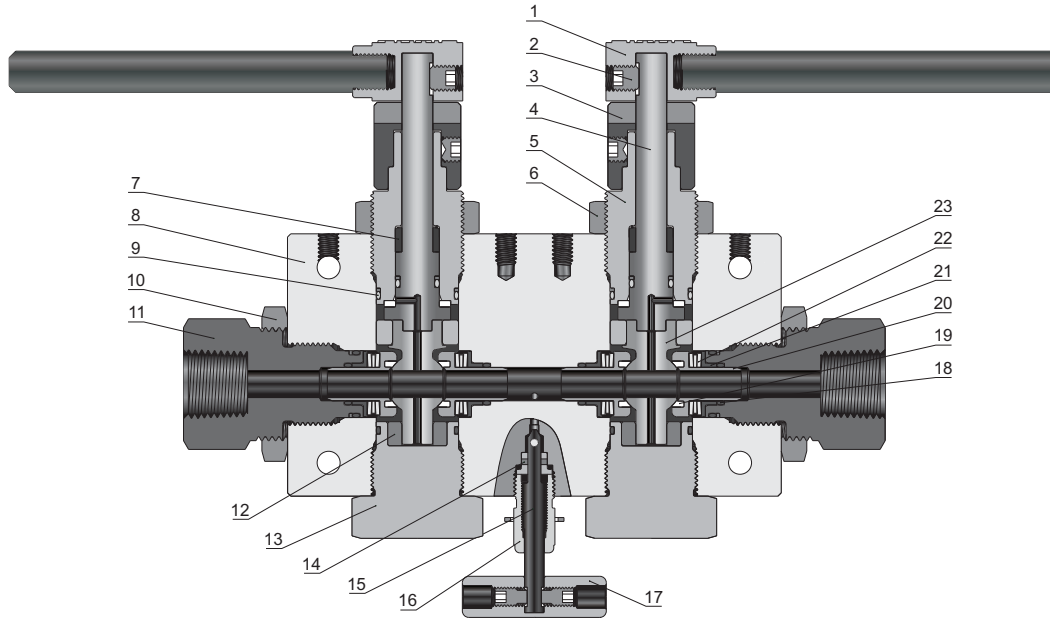
- ⦿ Working temperature range from 0°F to 400°F (-17.8°C to 204°C) with Fluorocarbon FKM O-rings; other O-ring materials available
- ⦿ High tensile 316 Stainless Steel body material
- ⦿ PEEK seats offer excellent resistance to chemicals, heat and abrasion
- ⦿ Trunnion-style ball to prevent ball blowout
- ⦿ 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 closed with positive stop

Pressure vs. Temperature Curve



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Standard Materials of Construction

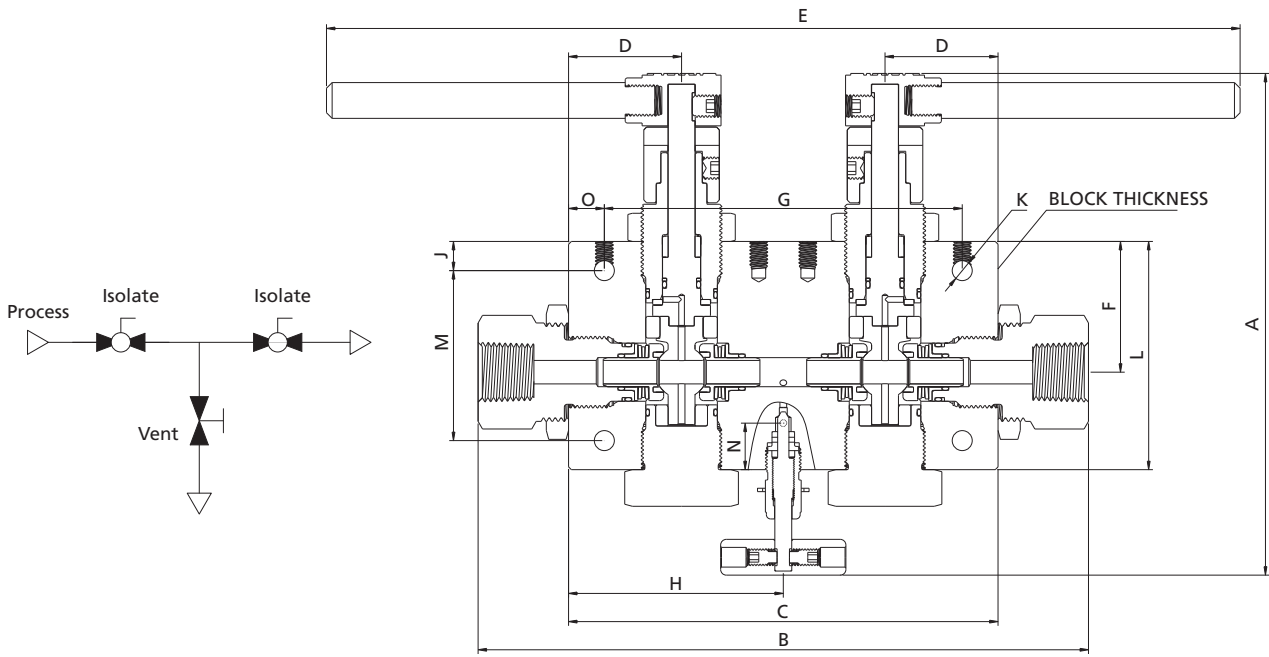


Item	Component	Material Grade
1	Handle	Stainless Steel
2	Set Screw	Stainless Steel
3	Stopping Device	316 SS
4	Stem	316 SS
5	Packing Gland	316 SS
6	Locking Piece	316 SS
7	Stem Backup	PEEK
8	Valve Body	316 SS
9	O-Ring	Fluorocarbon FKM
10	Lock Nut	316 SS
11	Seat Gland	316 SS
12	Bearing	PEEK
13	Bottom Gland	316 SS
14	Vent Valve Packing	PTFE
15	Vent Valve Stem	S17400
16	Vent Valve Packing Gland	C63000
17	Vent Valve Handle	Stainless Steel
18	O-Ring	Fluorocarbon FKM
19	Seat	PEEK
20	Seat Retainer	S17400
21	Belleville Backup	S17400
22	Belleville Washers	S17700
23	Ball	316 SS
	Lubricant	Molybdenum Disulfide/Fluorinated-based

Wetted components listed in italics.

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Dimensions

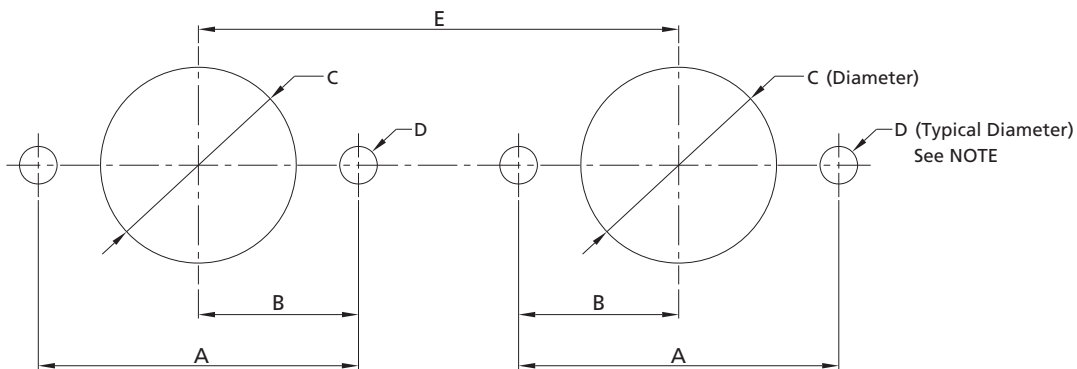


Dimensions, in. (mm)

A	B	C	D	E	F	G	H	J	K	L	M	N ^①	O	Block Thickness
7.14 (181.4)	8.53 (216.6)	6 (152.4)	1.58 (40.1)	12.76 (324.2)	1.83 (46.4)	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)

- NOTES: 1. N: Vent connection on back side.
 2. All dimensions are for reference only and are subject to change.

Panel Mounting Dimensions



Dimensions, in. (mm)

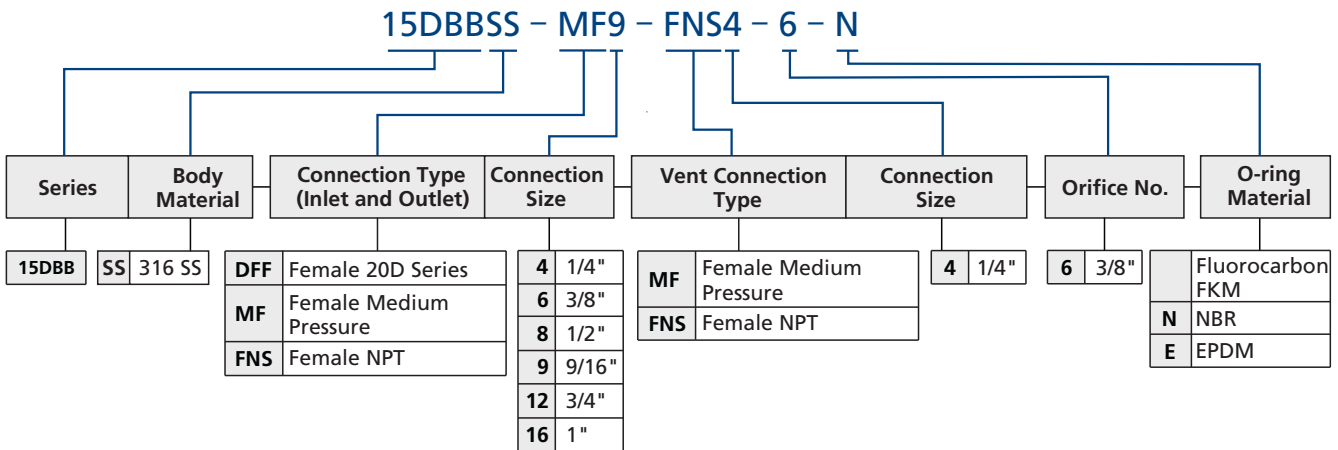
A	B	C	D	E
2.16 (54.8)	1.08 (27.4)	1.5 (38.1)	0.28 (7.1)	2.84 (72.2)

- NOTES: 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-DFE8-FNS4-6	DFE8	FNS4	6	0.33 (8.3)	2.3	15,000 (1034)
	15DBBSS-MF4-MF4-6	MF4	MF4		0.11 (2.8)	0.23	
	15DBBSS-MF6-MF4-6	MF6	MF4		0.20 (5.2)	0.9	
	15DBBSS-MF9-MF4-6	MF9	MF4		0.33 (8.3)	2.3	
	15DBBSS-MF9-FNS4-6	MF9	FNS4		0.33 (8.3)	2.3	
	15DBBSS-MF12-MF4-6	MF12	MF4		0.33 (8.3)	2.3	
	15DBBSS-MF16-FNS4-6	MF16	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



- NOTES: 1. For more details regarding 20D Series and Medium Pressure connections, please see **Connection Information** on I-02.
2. "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)
E	EPDM	-50 to 300 (-45 to 148)

Fittings
Tubing
Quick Couplings
Line Filters
Valves
Sour Service Products
Subsea Valves
Tools and Installation Instructions
Technical Information
Part Number Crossover Charts