

Subsea Valves



Medium & High Pressure Fittings and Tubing
Quick Couplings
Medium & High Pressure Valves
Line Filters
Sour Service Products
Subsea Valves
Tools and Installation Instructions
Technical Information

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Subsea Ball Valves

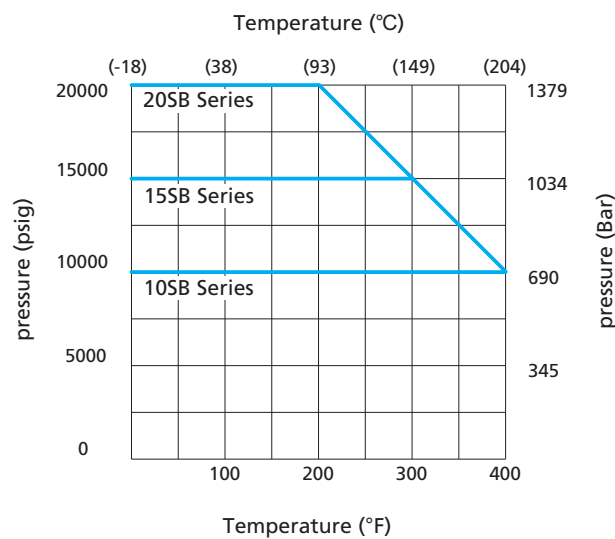
2-way Valves, 3-way Valves

Features

- Working pressure up to 20,000 psig (1379 bar)
- Maximum external pressure: 6,000 psig (414 bar)
- NBR O-ring for operation from 0°F to 250°F (-17.8°C to 121°C), other O-ring materials available
- High tensile 316 stainless steel as standard material for valve body
- Available to NACE MR0175
- Rapid quarter turn action to provide quick open/close action for easy ROV or diver operation
- PEEK seats to offer excellent resistance against chemicals, heat and abrasion
- Full-port flow path to minimize pressure drop
- Wide selection of tube and pipe end fittings available
- A variety of wetted materials optional
- Maximum water depth: 13,800 ft. (4200 m)

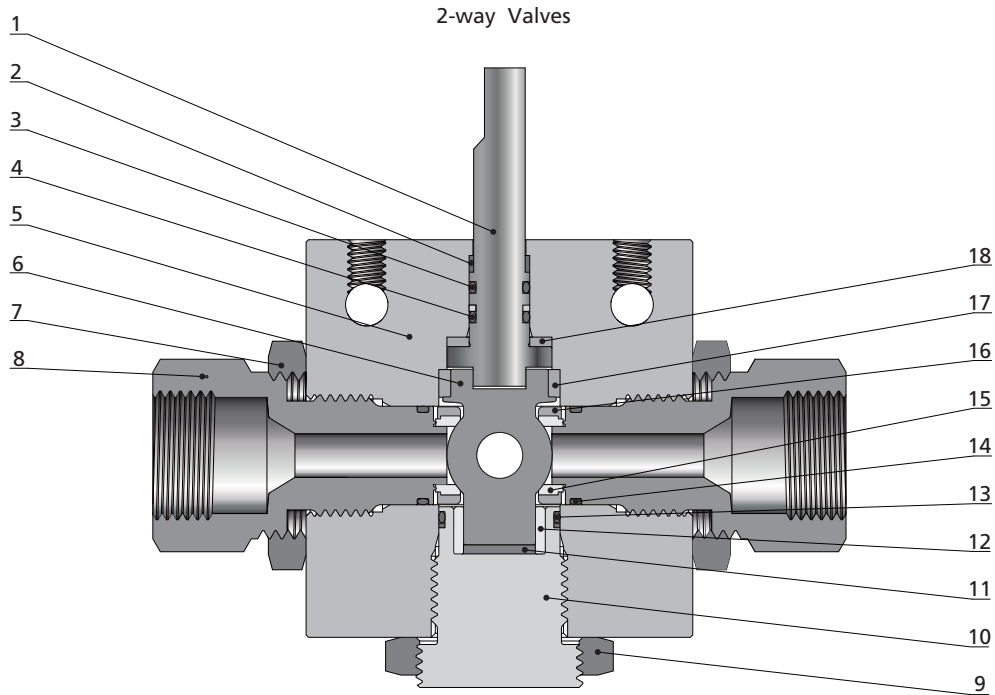


Pressure vs. Temperature Curve



- NOTES: 1. Ball valves are not recommended for critical gas applications such as Hydrogen, Helium or other small molecular gases.
2. The side port can not be used as inlet port for 3-way valves.

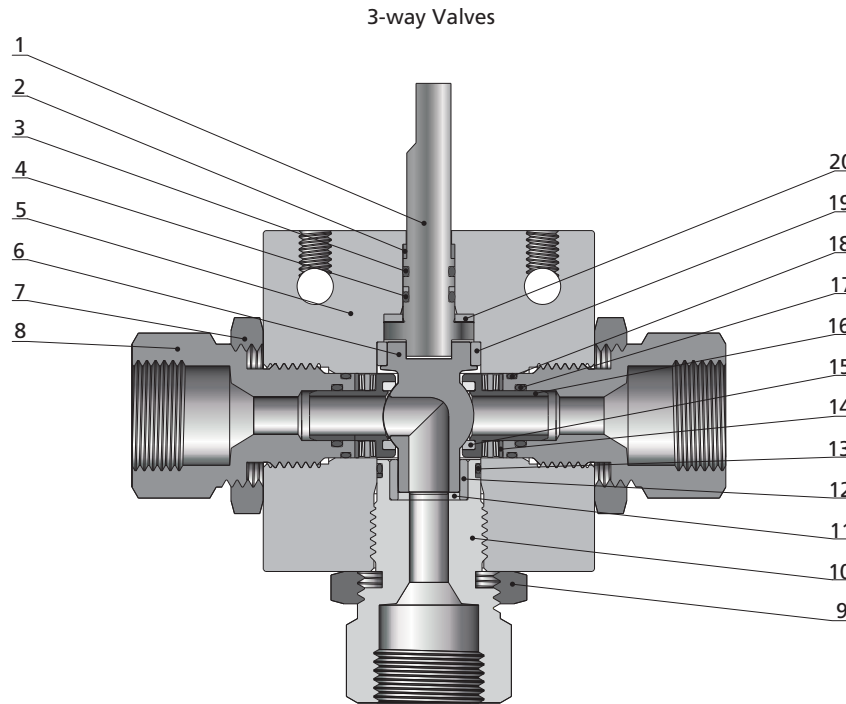
Standard Materials of Construction



Item	Component	Material Grade/ASTM Specification
1	<i>Ball Stem</i>	<i>316 SS/A479</i>
2	Stem Backup	PEEK
3	O-Ring	NBR
4	<i>O-Ring</i>	<i>NBR</i>
5	<i>Body</i>	<i>316 SS/A479</i>
6	<i>Ball</i>	<i>316 SS/A479</i>
7	Lock Nut	316 SS/A479
8	<i>Seat Gland</i>	<i>316 SS/A479</i>
9	Locking Piece	316 SS/A479
10	<i>Bottom Gland</i>	<i>316 SS/A479</i>
11	<i>Bottom Thrust washer</i>	<i>PEEK</i>
12	<i>Bearing</i>	<i>PEEK</i>
13	<i>O-Ring</i>	<i>NBR</i>
14	<i>O-Ring</i>	<i>NBR</i>
15	<i>Seat</i>	<i>PEEK</i>
16	<i>Seat Retainer</i>	<i>316 SS/A479</i>
17	<i>Bearing</i>	<i>PEEK</i>
18	<i>Thrust Washer</i>	<i>PEEK</i>
	Lubricant	Molybdenum Disulfide/Fluorinated-based

Wetted components listed in italics.

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Item	Component	Material Grade/ASTM Specification
1	<i>Ball Stem</i>	316 SS/A479
2	Stem Backup	PEEK
3	O-Ring	NBR
4	<i>O-Ring</i>	<i>NBR</i>
5	<i>Body</i>	<i>316 SS/A479</i>
6	<i>Ball</i>	<i>316 SS/A479</i>
7	Lock Nut	316 SS/A479
8	<i>Seat Gland</i>	<i>316 SS/A479</i>
9	Locking Piece	316 SS/A479
10	<i>Bottom Gland</i>	<i>316 SS/A479</i>
11	<i>Bottom Thrust washer</i>	<i>PEEK</i>
12	<i>Bearing</i>	<i>PEEK</i>
13	<i>O-Ring</i>	<i>NBR</i>
14	<i>Belleville Washer</i>	<i>17-7PH/A693</i>
15	<i>Seat</i>	<i>PEEK</i>
16	<i>Seat Retainer</i>	<i>17-7PH/A693</i>
17	<i>O-Ring</i>	<i>NBR</i>
18	<i>O-Ring</i>	<i>NBR</i>
19	<i>Bearing</i>	<i>PEEK</i>
20	<i>Thrust Washer</i>	<i>PEEK</i>
	Lubricant	Molybdenum Disulfide/Fluorinated-based

Wetted components listed in italics.

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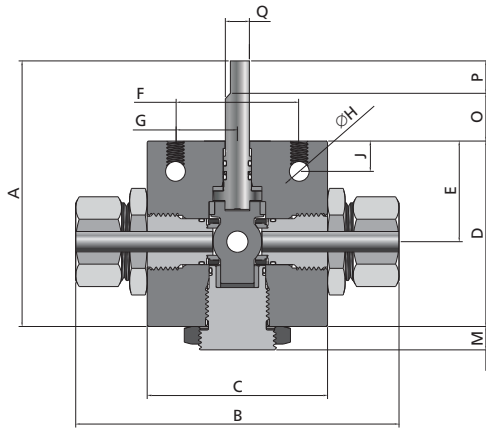
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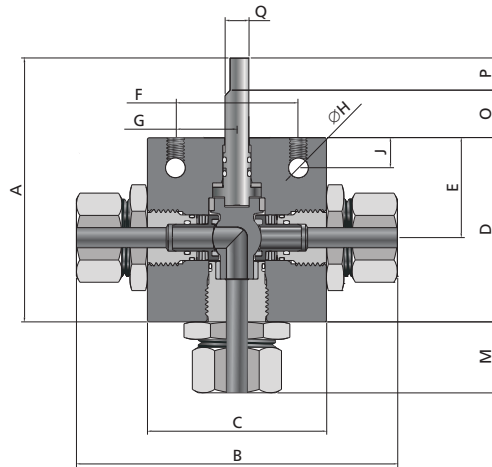
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Dimensions



2-way Valves

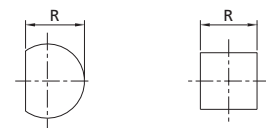


3-way Valves

Flow Pattern	Orifice No.	Dimensions, in. (mm)										
		A	B	C	D	E	F	G	H	J	M	Block Thickness
2-way	4	4.31 (109.3)	4.20 (106.8)	2 (50.8)	2.53 (64.2)	1.28 (32.5)	1.5 (38.1)	0.75 (19.05)	0.28 (7.1)	0.43 (10.9)	0.35 (8.8)	1 (25.4)
	6	5.94 (150.8)	5.53 (140.4)	3 (76.2)	3.43 (87.3)	1.78 (45.2)	2.5 (63.5)	1.25 (31.75)	0.31 (7.9)	0.41 (10.3)	0.35 (8.8)	1.38 (34.9)
	8	6.67 (169.5)	7.72 (196.2)	4.12 (104.6)	4.23 (107.5)	2.07 (52.4)	3 (76.2)	1.5 (38.1)	0.31 (7.9)	0.5 (12.7)	0.61 (15.5)	1.75 (44.5)
3-way	4	4.34 (110.2)	4.70 (119.5)	2.5 (63.5)	2.56 (65)	1.34 (34)	2 (50.8)	1 (25.4)	0.28 (7.1)	0.41 (10.3)	1.1 (28)	1 (25.4)

Flow Pattern	Orifice No.	Dimensions, in. (mm)			
		O	P	Q	R
2-way	4	1.278 (32.5)	0.5 (12.7)	0.25 (6.35)	0.22 (5.48)
	6	1.24 (31.7)	1.25 (31.8)	0.44 (11.1)	0.38 (9.35)
	8	1.56 (39.7)	0.88 (22.2)	0.62 (15.9)	0.44 (11.13)
3-way	4	1.28 (32.5)	0.5 (12.7)	0.25 (6.35)	0.22 (5.49)

Ball stem connection

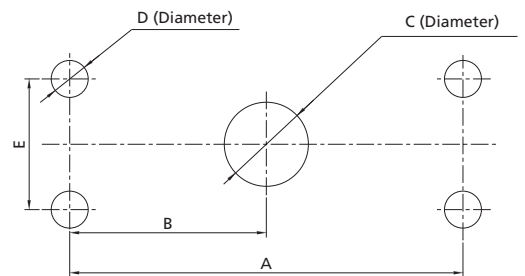
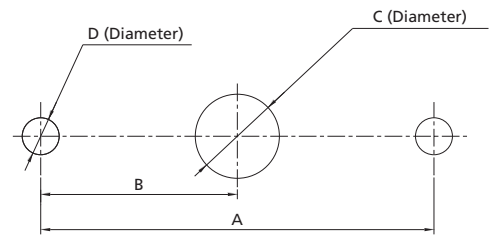


Orifice 4

Orifice 6/8

Ball Valve Panel Mounting Dimensions

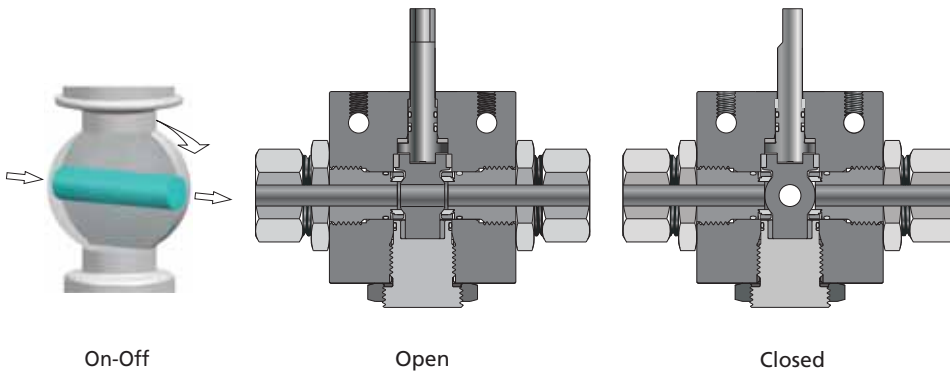
Flow Pattern	Orifice No.	Dimensions, in. (mm)			
		A	B	C	D
2-way	4	1.5 (38.1)	0.75 (19.05)	0.31 (7.9)	0.28 (7.1)
3-way	4	2 (50.8)	1 (25.4)	0.31 (7.9)	0.28 (7.1)



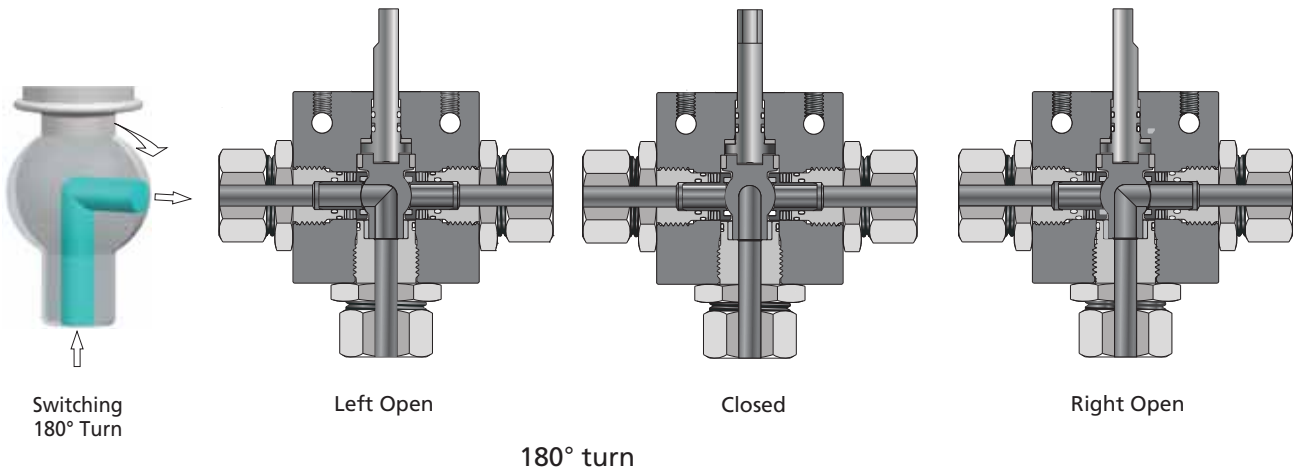
All dimensions are for reference only and are subject to change.

Flow Configuration

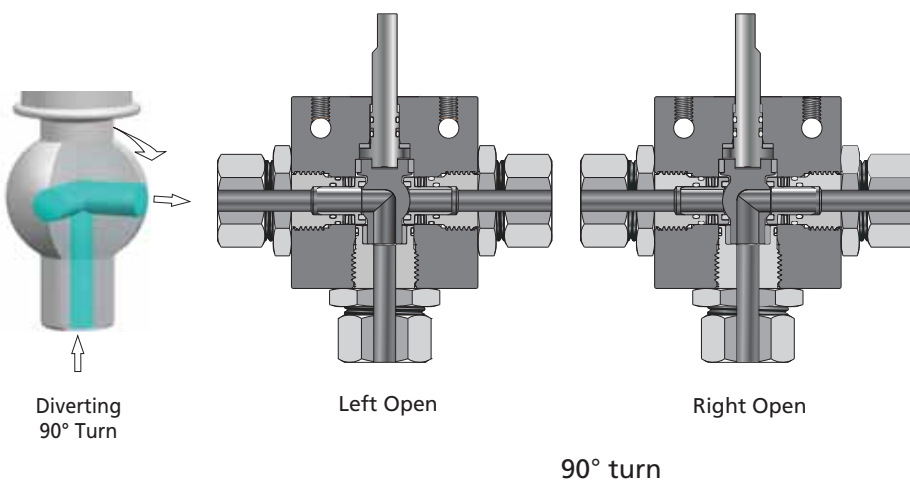
2-way Valves



3-way Valves



180° turn



90° turn

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Ordering Number	Flow Pattern	Connection	Orifice No.	Orifice size in. (mm)	Cv	Working Pressure psig (bar)
10SBSS-2FH12-8-1	2-way	2FH12	8	0.5 (12.7)	10.2	10,000 (690)
10SBSS-2FH16-8-1		2FH16		0.5 (12.7)	10.2	
10SBSS-FNS12-8-1		FNS12		0.5 (12.7)	10.2	
10SBSS-FNS16-8-1		FNS16		0.5 (12.7)	10.2	
15SBSS-DHL4-4-1	2-way	DHL4	4	0.128 (3.25)	0.26	15,000 (1034)
15SBSS-DHL6-4-1		DHL6		0.25 (6.35)	1.51	
15SBSS-FNS4-4-1		FNS4		0.25 (6.35)	1.51	
15SBSS-FNS6-4-1		FNS6		0.25 (6.35)	1.51	
15SBSS-FNS8-4-1		FNS8		0.25 (6.35)	1.51	
15SBSS-FNS4-6-1	2-way	FNS4	6	0.375 (9.52)	3.51	
15SBSS-FNS6-6-1		FNS6		0.375 (9.52)	3.51	
15SBSS-FNS8-6-1		FNS8		0.375 (9.52)	3.51	
15SBSS-FNS4-4-2	3-way	FNS4	4	0.188 (4.77)	0.5	
15SBSS-FNS4-4-2D						
15SBSS-FNS6-4-2		FNS6		0.188 (4.77)	0.5	
15SBSS-FNS6-4-2D						
20SBSS-2FH4-4-1	2-way	2FH4	4	0.109 (2.77)	0.36	20,000 (1379)
20SBSS-2FH6-4-1		2FH6		0.203 (5.16)	1.23	
20SBSS-2FH9-4-1		2FH9		0.25 (6.35)	1.51	
20SBSS-6FH4-4-1		6FH4		0.094 (2.39)	0.26	
20SBSS-6FH6-4-1		6FH6	0.125 (3.17)	0.47		
20SBSS-2FH6-6-1		2FH6	6	0.203 (5.16)	1.23	
20SBSS-2FH9-6-1		2FH9		0.312 (7.92)	2.93	
20SBSS-2FH12-6-1		2FH12		0.375 (9.52)	3.51	
20SBSS-2FH4-4-2	3-way	2FH4	4	0.109 (2.39)	0.17	
20SBSS-2FH4-4-2D						

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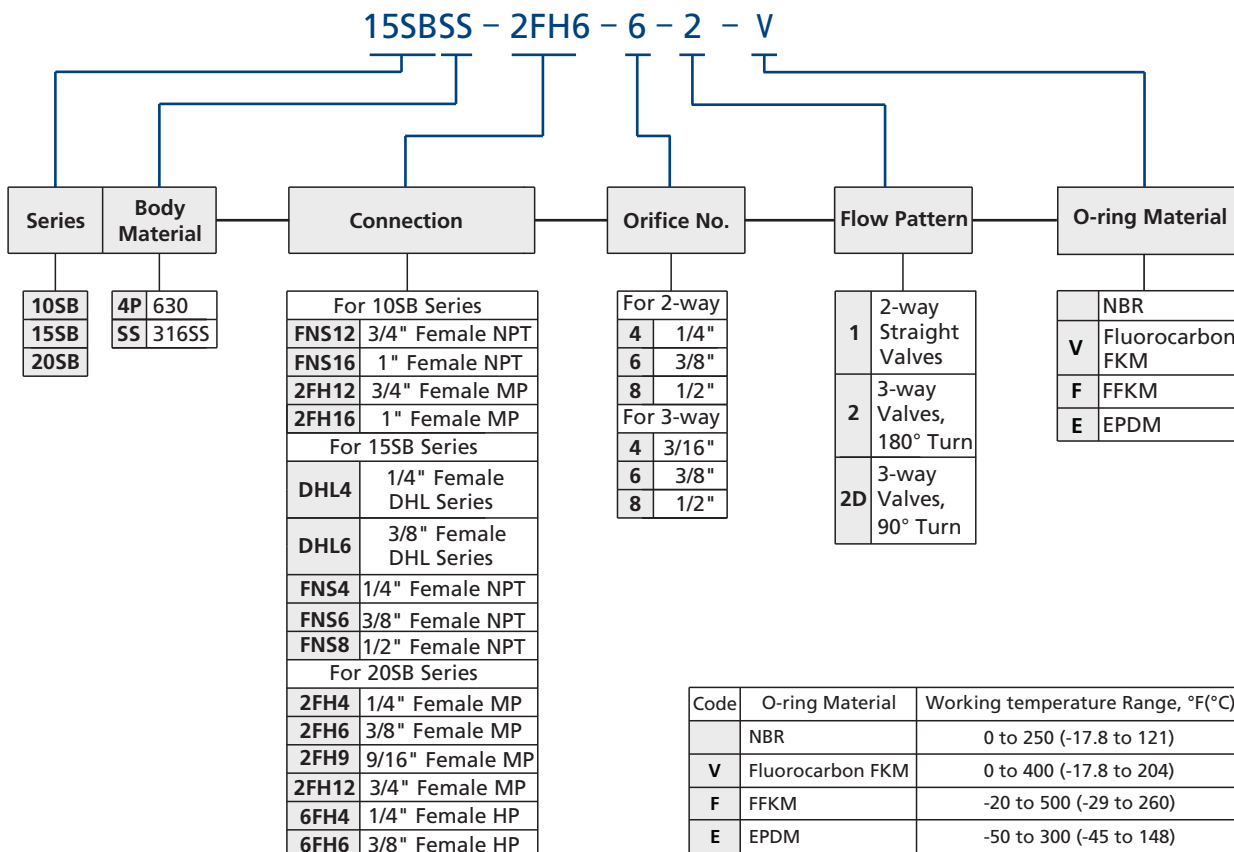
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Ordering Information and Dimensions (continue)

Ordering Number	Flow Pattern	Connection	Orifice No.	Orifice size in. (mm)	Cv	Working Pressure psig (bar)
20SBSS-2FH6-4-2	3-way	2FH6	4	0.188 (4.77)	0.5	20,000 (1379)
20SBSS-2FH6-4-2D						
20SBSS-2FH9-4-2		2FH9		0.188 (4.77)	0.5	
20SBSS-2FH9-4-2D						
20SBSS-6FH4-4-2		6FH4		0.094 (2.39)	0.13	
20SBSS-6FH4-4-2D						
20SBSS-6FH6-4-2		6FH6		0.125 (3.17)	0.22	
20SBSS-6FH6-4-2D						

Ordering Number Description



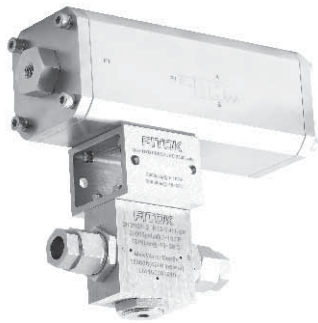
NOTE: "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.

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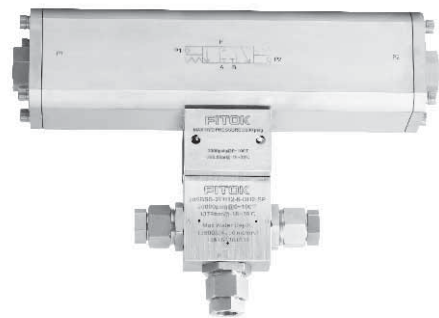
Subsea Hydraulic Ball Valves

Features

- ⦿ Working pressure up to 20,000 psig (1379 bar)
- ⦿ Maximum external pressure: 6,000 psig (414 bar)
- ⦿ Maximum drive pressure: 3,000 psig (207 bar)
- ⦿ Hydraulic actuated working temperature: 0°F to 200°F(-18°C to 93°C)
- ⦿ High tensile 316 stainless steel for valve body and 17-4 PH for hydraulic actuator
- ⦿ Gear shaft and rack in the transmission mechanism with special heat treatment and surface hardening to ensure excellent abrasive resistance and long cycle life
- ⦿ Fluorocarbon FKM O-ring and PEEK seal to provide excellent resistance against chemicals, heat and abrasion
- ⦿ Three types of hydraulic actuators (HTO, HTC, DH) available
- ⦿ Maximum water depth: 13,800 ft. (4200 m)

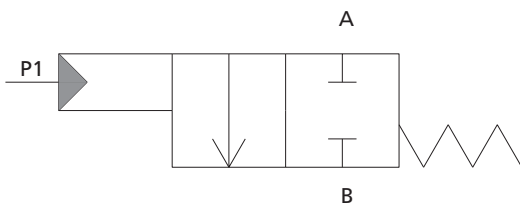


Subsea Hydraulic Ball Valves (2-way)

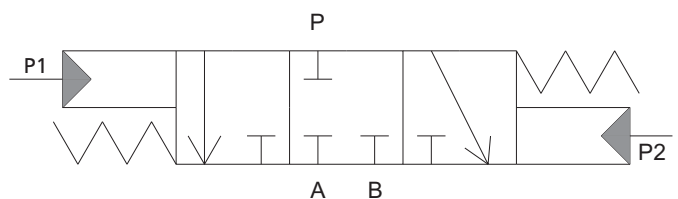


Subsea Hydraulic Ball Valves (3-way)

Schematic Diagram:



2-way (HTO)



3-way (DH)

- ⦿ HTO: Hydraulic to open, single acting with spring return (Normally Closed)
- ⦿ HTC: Hydraulic to close, single acting with spring return (Normally Open)
- ⦿ DH: Double acting with spring return

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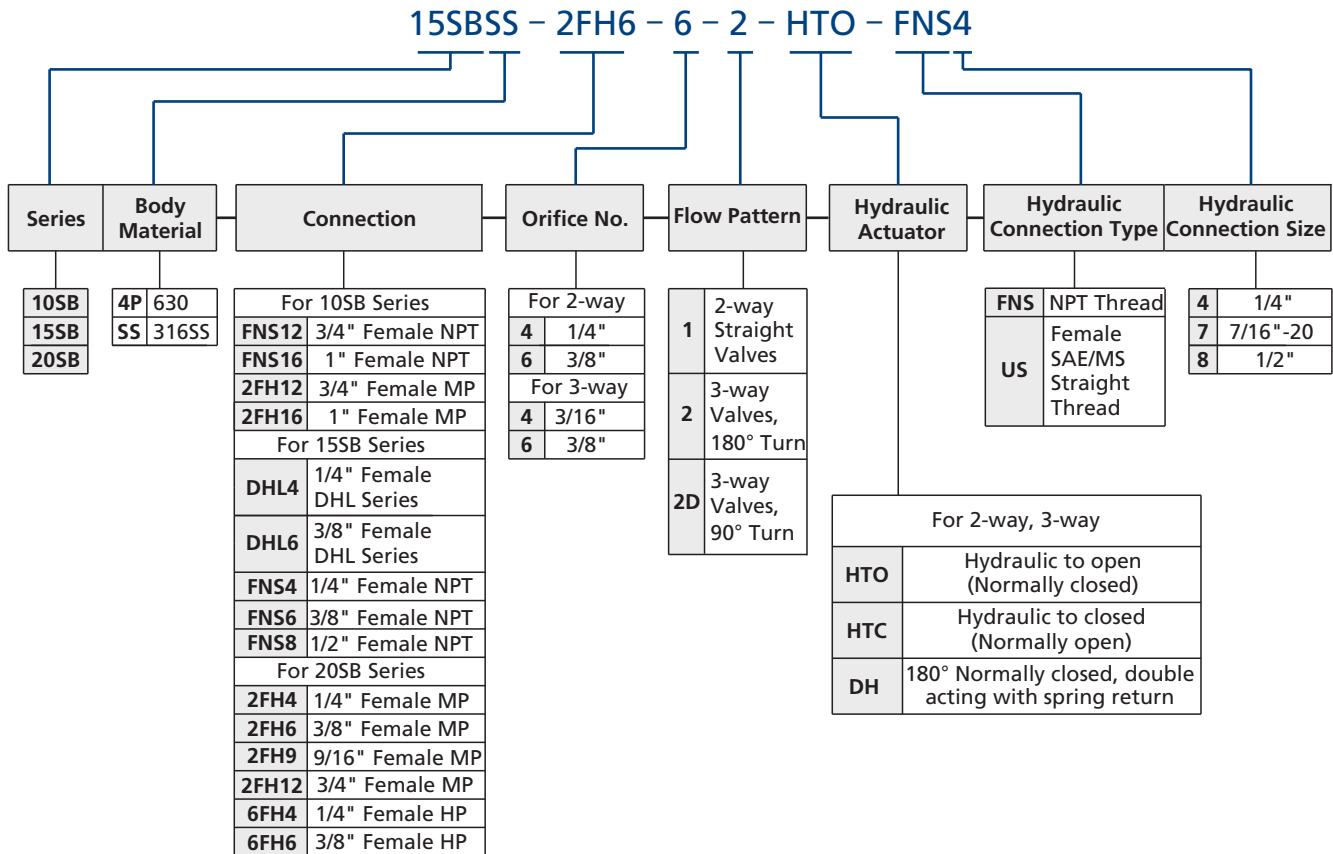
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Ordering Number Description



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Subsea Check Valves

Features

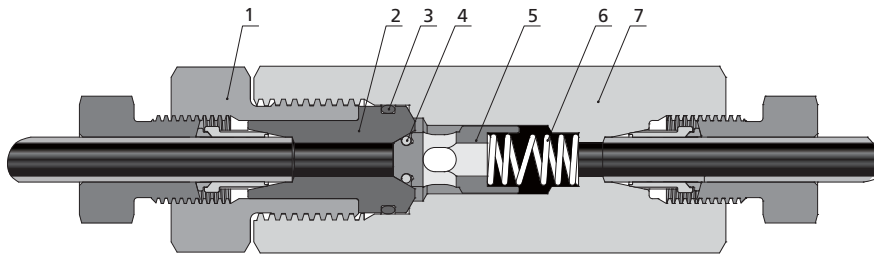
- Working pressure up to 20,000 psig (1379 bar)
- Maximum external pressure: 6,000 psig (414 bar)
- Cracking pressure: 14 psig~26 psig (0.966 bar~1.794 bar)
- NBR O-ring for operation from 0°F to 250°F (-17.8°C to 121°C), other O-ring materials available
- High tensile 316 stainless steel for valve body
- Available to NACE MR0175
- Provides unidirectional flow and tight shut-off for liquids and gases with high reliability. When differential drops below cracking pressure, valve shuts off (Not for use as relief valve)
- Soft seat seal ring style or metal to metal seat poppet style available
- Maximum water depth: 13,800 ft. (4200 m)



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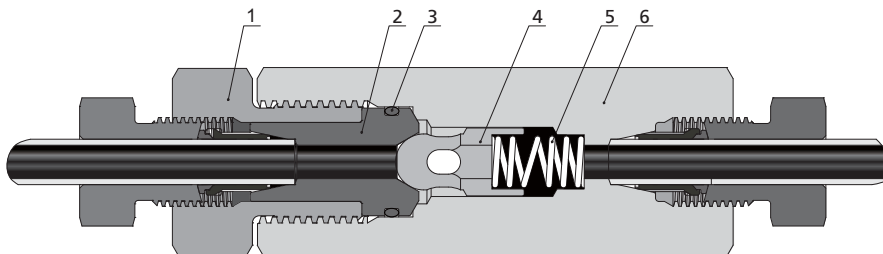
Standard Materials of Construction

SC Series



Item	Component	Material Grade/ASTM specification
1	Cover Gland	316SS/A479
2	Cover	316SS/A479
3	Seal Ring	NBR
4	Seal Ring	NBR
5	Ball Poppet	316SS/A479
6	Spring	304SS/A313
7	Valve Body	316SS/A479

SCO Series



Item	Component	Material Grade/ASTM specification
1	Cover Gland	316SS/A479
2	Cover	316SS/A479
3	Seal Ring	NBR
4	Ball Poppet	316SS/A479
5	Spring	304SS/A313
6	Valve Body	316SS/A479

Wetted components listed in italics.

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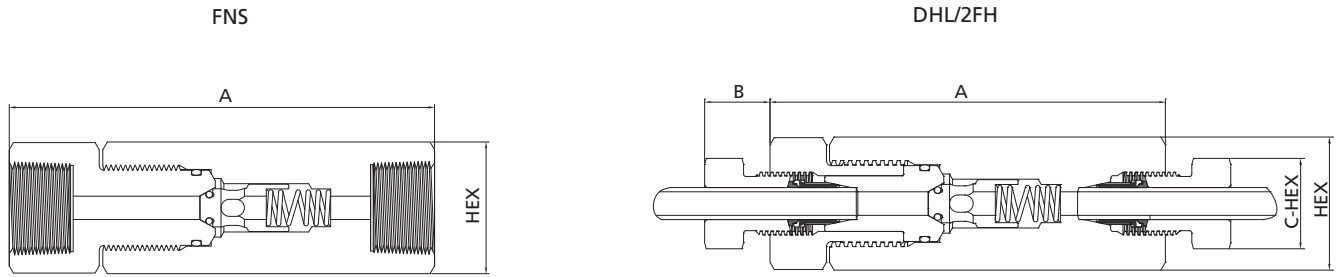
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Ordering Information and Dimensions



Ordering Number	Connection	Orifice Size in. (mm)	Cv	Dimensions, in. (mm)				Working Pressure psig (bar)
				A	B	C-HEX	HEX	
10SCSS-FNS12	FNS12	0.52 (13.21)	4.70	6.29 (159.77)	—	—	1.75 (44.45)	10,000 (690)
10SCSS-FNS16	FNS16	0.69 (17.53)	7.40	7.33 (186.18)	—	—	1.88 (47.75)	
10SCOSS-FNS12	FNS12	0.52 (13.21)	4.70	6.29 (159.77)	—	—	1.75 (44.45)	
10SCOSS-FNS16	FNS16	0.69 (17.53)	7.40	7.33 (186.18)	—	—	1.88 (47.75)	
15SCSS-DHL4	DHL4	0.188 (4.78)	0.63	3.18 (80.77)	0.53 (13.56)	0.63 (16.00)	0.81 (20.57)	15,000 (1034)
15SCSS-DHL6	DHL6	0.250 (6.35)	1.70	3.56 (90.42)	0.53 (13.56)	0.75 (19.05)	1.00 (25.40)	
15SCSS-DHL8	DHL8	0.375 (9.53)	3.40	4.18 (106.17)	0.6 (15.19)	0.93 (23.62)	1.38 (35.05)	
15SCOSS-DHL4	DHL4	0.188 (4.78)	0.63	3.18 (80.77)	0.53 (13.56)	0.63 (16.00)	0.81 (20.57)	
15SCOSS-DHL6	DHL6	0.250 (6.35)	1.70	3.56 (90.42)	0.53 (13.56)	0.75 (19.05)	1.00 (25.40)	
15SCOSS-DHL8	DHL8	0.375 (9.53)	3.40	4.18 (106.17)	0.6 (15.19)	0.93 (23.62)	1.38 (35.05)	
15SCSS-FNS4	FNS4	0.12 (3.05)	0.28	3.37 (85.60)	—	—	0.94 (23.81)	
15SCSS-FNS6	FNS6	0.22 (5.59)	0.84	3.95 (100.33)	—	—	1.13 (28.58)	
15SCSS-FNS8	FNS8	0.36 (9.12)	2.30	5.36 (136.14)	—	—	1.38 (35.05)	
15SCOSS-FNS4	FNS4	0.12 (3.05)	0.28	3.37 (85.60)	—	—	0.94 (23.81)	20,000 (1379)
15SCOSS-FNS6	FNS6	0.22 (5.59)	0.84	3.95 (100.33)	—	—	1.13 (28.58)	
15SCOSS-FNS8	FNS8	0.36 (9.12)	2.30	5.36 (136.14)	—	—	1.38 (35.05)	
20SCSS-2FH4	2FH4	0.125 (3.18)	0.28	2.94 (74.68)	0.38 (9.65)	0.50 (12.70)	0.81 (20.57)	
20SCSS-2FH6	2FH6	0.218 (5.54)	0.84	3.12 (79.25)	0.47 (11.94)	0.62 (15.75)	1.00 (25.40)	
20SCSS-2FH9	2FH9	0.359 (9.12)	2.30	4.18 (106.17)	0.53 (13.46)	0.94 (23.81)	1.38 (35.05)	
20SCSS-2FH12	2FH12	0.516(13.11)	4.70	5.50 (139.70)	0.62 (15.75)	1.19 (30.23)	1.75 (44.45)	
20SCSS-2FH16	2FH16	0.688(17.48)	7.40	6.63 (168.40)	0.72 (18.29)	1.38 (35.05)	2.12 (53.85)	

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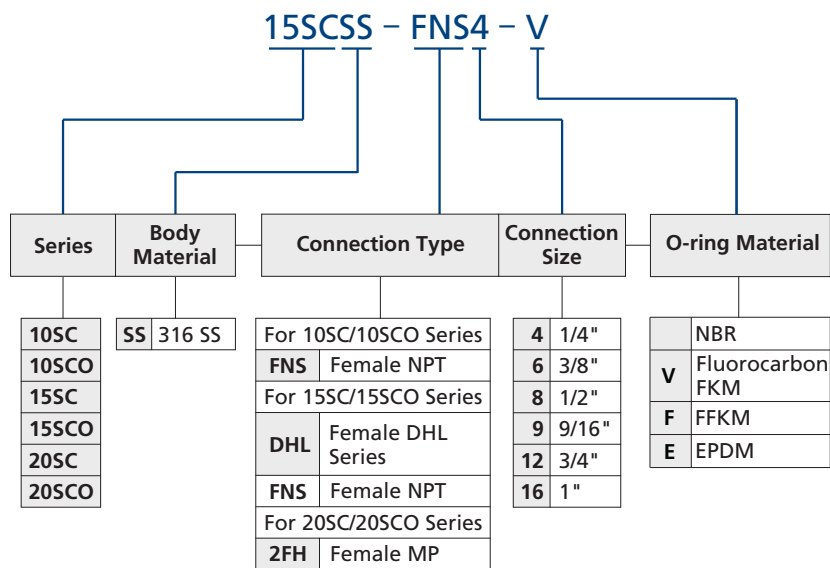
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Ordering Number	Connection	Orifice Size in. (mm)	Cv	Dimensions, in. (mm)				Working Pressure psig (bar)
				A	B	C-HEX	HEX	
20SCOSS-2FH4	2FH4	0.125 (3.18)	0.28	2.94 (74.68)	0.38 (9.65)	0.50 (12.70)	0.81 (20.57)	20,000 (1379)
20SCOSS-2FH6	2FH6	0.218 (5.54)	0.84	3.12 (79.25)	0.47 (11.94)	0.62 (15.75)	1.00 (25.40)	
20SCOSS-2FH9	2FH9	0.359 (9.12)	2.30	4.18 (106.17)	0.53 (13.46)	0.94 (23.81)	1.38 (35.05)	
20SCOSS-2FH12	2FH12	0.516 (13.11)	4.70	5.50 (139.70)	0.62 (15.75)	1.19 (30.23)	1.75 (44.45)	
20SCOSS-2FH16	2FH16	0.688 (17.48)	7.40	6.63 (168.40)	0.72 (18.29)	1.38 (35.05)	2.12 (53.85)	

Ordering Number Description



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

- NOTES: 1. "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.
2. Please contact FITOK Group or our authorized distributors for more information on wetted materials (Eg: 2507 SD), seal materials and operational designs to fulfill your application requirements.

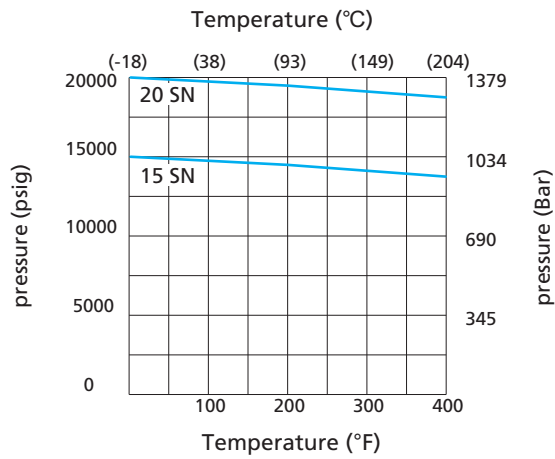
Subsea Needle Valves

Features

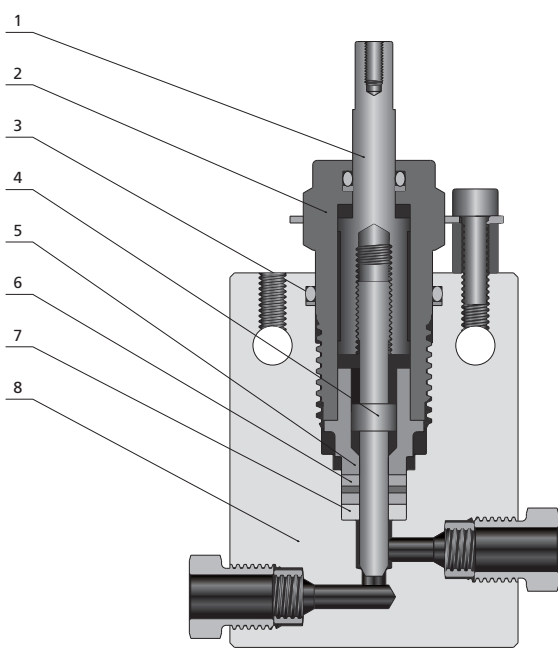
- ⦿ Working pressure up to 20,000 psig (1379 bar)
- ⦿ Maximum external pressure: 6,000 psig (414 bar)
- ⦿ NBR O-ring for operation from 0°F to 250°F (-17.8°C to 121°C), other O-ring materials available
- ⦿ High tensile 316 stainless steel for valve body
- ⦿ Standard stem seal material: PTFE
- ⦿ Available to NACE MR0175
- ⦿ Using a two-part spindle assembly with a non-rising upper stem, it is of great advantage when being used with ROVs
- ⦿ Non-rotating lower stem to ensure positive non-galling operation during shut-off
- ⦿ Packing located under stem threads
- ⦿ Metal-to-metal seating to ensure ideal shut-off, longer stem/seat service lifetime for abrasive flow, excellent corrosion resistance and greater durability for repeated on/off cycles
- ⦿ Reliable locking device of packing gland
- ⦿ Wide selection of tube and pipe end fittings available
- ⦿ 2-way straight and 2-way angle available for flow pattern
- ⦿ Orifice size: 0.203"
- ⦿ Rated Cv: 0.75
- ⦿ Maximum water depth: 13,800 ft. (4200 m)



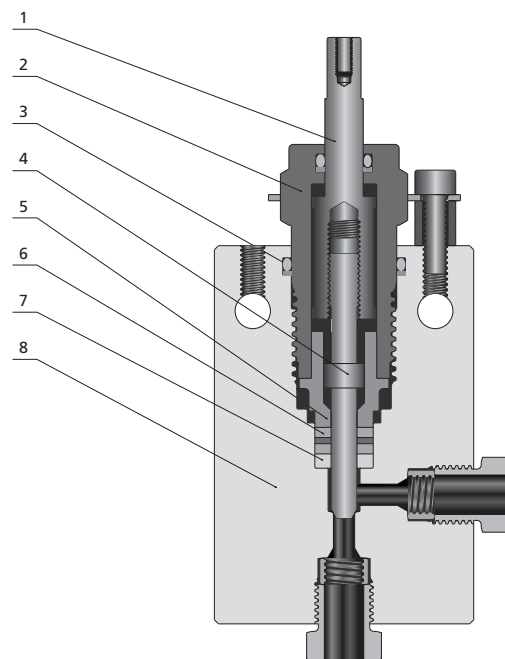
Pressure vs. Temperature Curve



Standard Materials of Construction



2-way straight

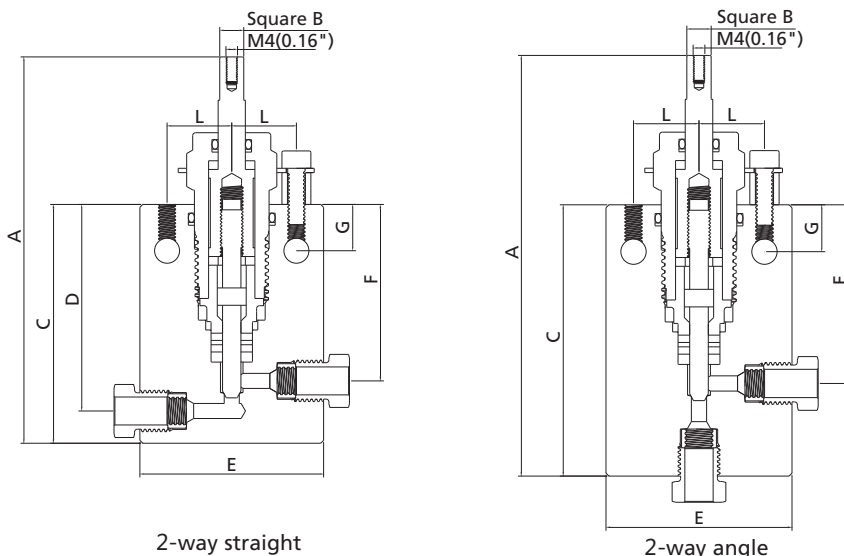


2-way angle

Item	Component	Material Grade/ASTM specification
1	Upper Stem	316SS/A479
2	Packing Gland	316SS/A479
3	O-Ring	NBR
4	<i>Lower Stem</i>	<i>S17400/A564</i>
5	Packing Ring	C63000/B150
6	<i>Packing</i>	<i>PTFE</i>
7	<i>Packing washer</i>	<i>S17400/A564</i>
8	Body	316 SS/A479
	Lubricant	Molybdenum disulfide

Wetted components listed in italics.

Ordering Information and Dimensions

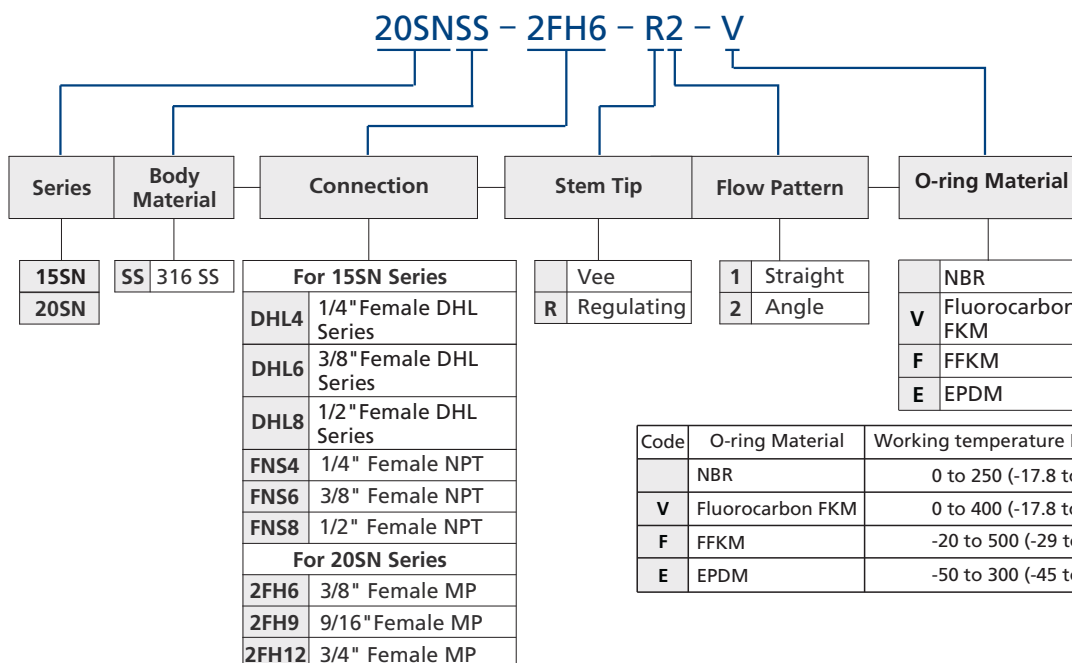


2-way straight

2-way angle

Ordering Number	Connection	Dimensions, in. (mm)								
		A	B	C	D	E	F	G	L	Block Thickness
20SNSS-2FH6-1	2FH6	5.35 (135.9)	0.24 (6.0)	2.60 (66.00)	2.22 (56.4)	2.00 (50.8)	1.79 (45.40)	0.38 (9.65)	0.77 (19.5)	1.00 (25.4)
20SNSS-2FH9-1	2FH9	5.83 (148.1)	0.24 (6.0)	3.25 (82.55)	2.75 (69.9)	2.50 (63.5)	2.44 (61.98)	0.38 (9.65)	0.77 (19.5)	1.50 (38.1)
20SNSS-2FH12-1	2FH12	6.90 (175.3)	0.24 (6.0)	4.12 (104.7)	3.44 (87.38)	3.00 (76.2)	2.94 (74.68)	0.38 (9.65)	0.77 (19.5)	1.50 (38.1)
20SNSS-2FH6-2	2FH6	5.78 (146.9)	0.24 (6.0)	3.03 (77.00)	—	2.00 (50.8)	1.78 (45.40)	0.38 (9.65)	0.77 (19.5)	1.00 (25.4)
20SNSS-2FH9-2	2FH9	6.33 (160.8)	0.24 (6.0)	3.75 (95.25)	—	2.50 (63.5)	2.44 (61.98)	0.38 (9.65)	0.77 (19.5)	1.50 (38.1)
20SNSS-2FH12-2	2FH12	7.40 (188.0)	0.24 (6.0)	4.62 (117.3)	—	3.00 (76.2)	2.94 (74.68)	0.38 (9.65)	0.77 (19.5)	1.50 (38.1)

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.

Subsea Hydraulic Needle Valves

Features

- ⦿ Working pressure up to 20,000 psig (1379 bar)
- ⦿ Maximum external pressure: 6,000 psig (414 bar)
- ⦿ Maximum drive pressure: 3,000 psig (207 bar)
- ⦿ Hydraulic actuated working temperature: 0°F to 175°F (-18°C to 80°C)
- ⦿ High tensile 316 stainless steel for valve body
- ⦿ Standard stem seal material: PTFE
- ⦿ Available to NACE MR0175
- ⦿ Metal-to-metal seating to ensure ideal shut-off, longer stem/seat service lifetime for abrasive flow, excellent corrosion resistance and greater durability for repeated on/off cycles
- ⦿ Reliable locking device of packing gland
- ⦿ Wide selection of tube and pipe end fittings available
- ⦿ 2-way straight and 2-way angle available for flow pattern
- ⦿ Orifice: 0.203"
- ⦿ Rated Cv: 0.75
- ⦿ Maximum water depth: 13,800 ft. (4200 m)



Medium & High Pressure Fittings and Tubing

Quick Couplings

Medium & High Pressure Valves

Line Filters

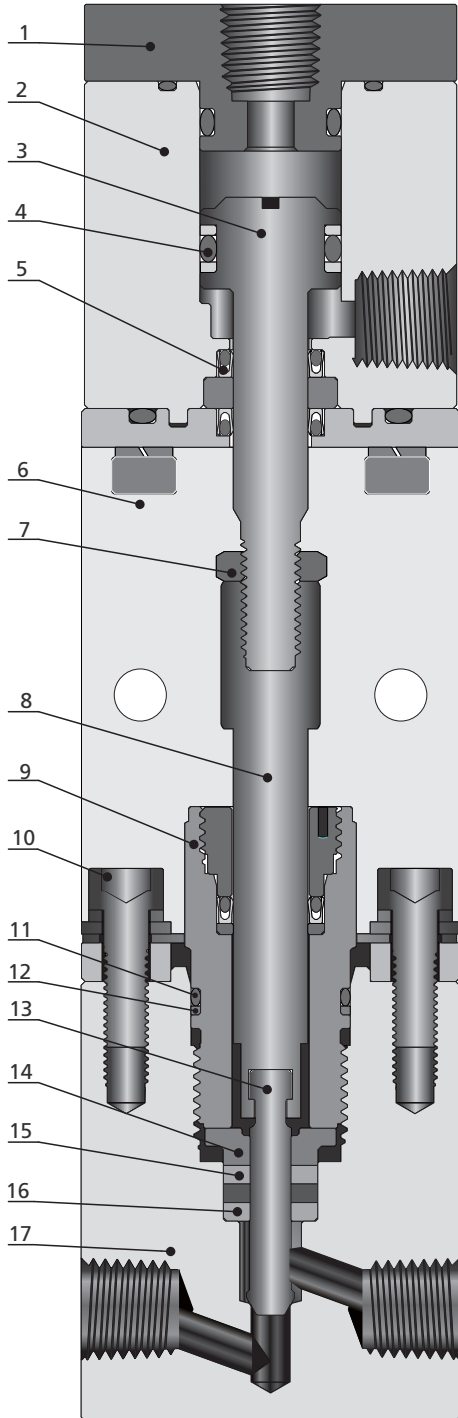
Sour Service Products

Subsea Valves

Tools and Installation Instructions

Technical Information

Standard Materials of Construction

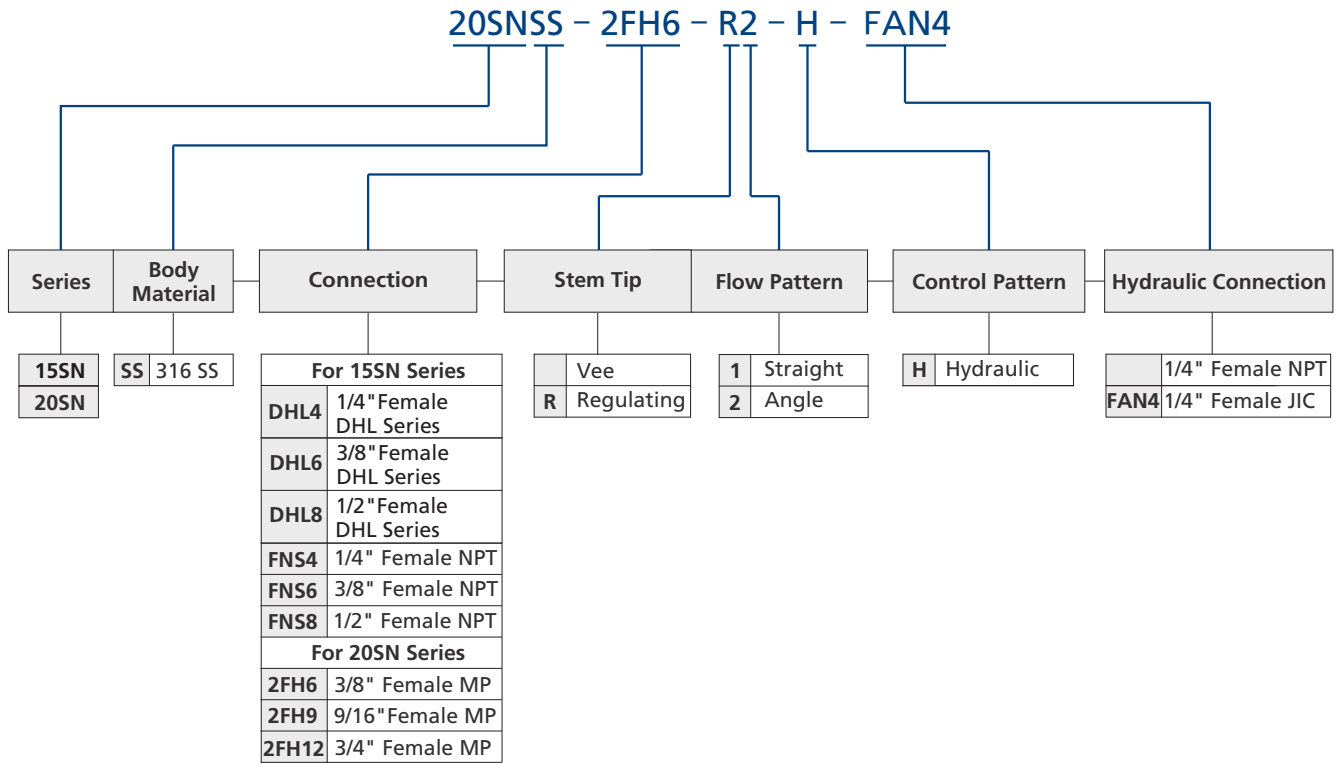


Item	Component	Material Grade/ASTM specification
1	Gland	316 SS/A479
2	Actuator Body	316 SS/A479
3	Piston Rod	316 SS/A479
4	O-Ring	Fluorocarbon FKM
5	Piston Seal	UHMWPE
6	Support Block	316 SS/A479
7	Nut	Stainless Steel
8	Upper Stem	316 SS/A479
9	Packing Gland	316 SS/A479
10	Locking Screw	SS
11	O-Ring	NBR
12	O-Ring Retainer	PTFE
13	<i>Lower Stem</i>	<i>S17400/A564</i>
14	Packing Ring	C63000/B150
15	<i>Packing</i>	<i>PTFE</i>
16	<i>Packing Washer</i>	<i>S17400/A564</i>
17	<i>Body</i>	<i>316 SS/A479</i>

Wetted components listed in italics.

Medium & High Pressure Fittings and Tubing
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Technical Information

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.

Medium & High Pressure Fittings and Tubing
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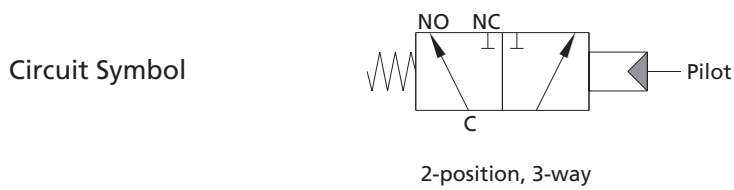
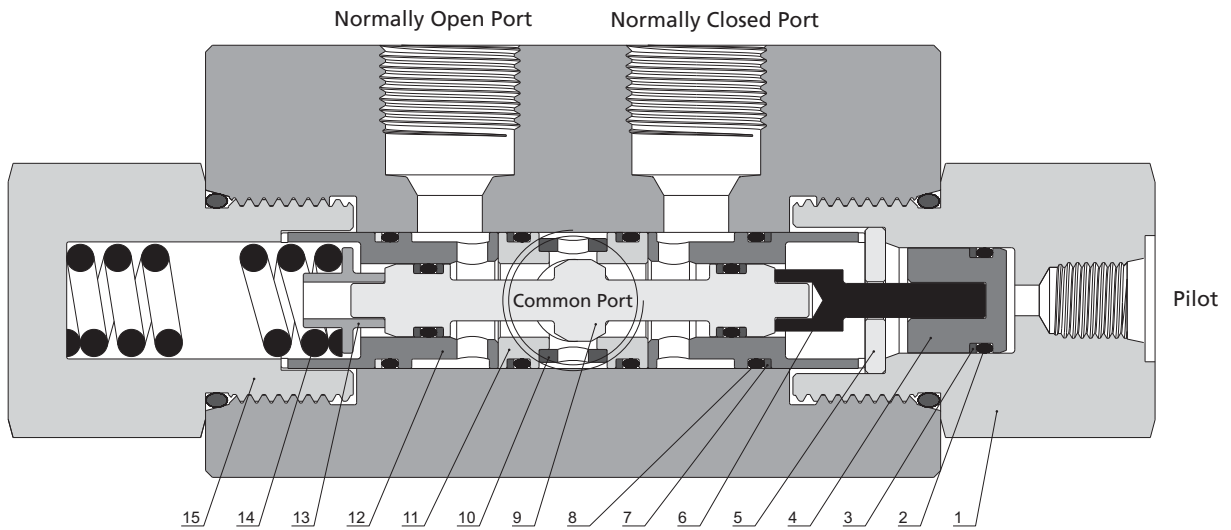
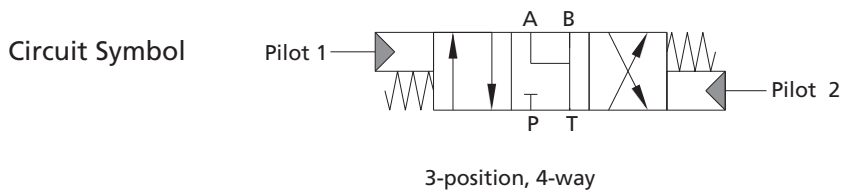
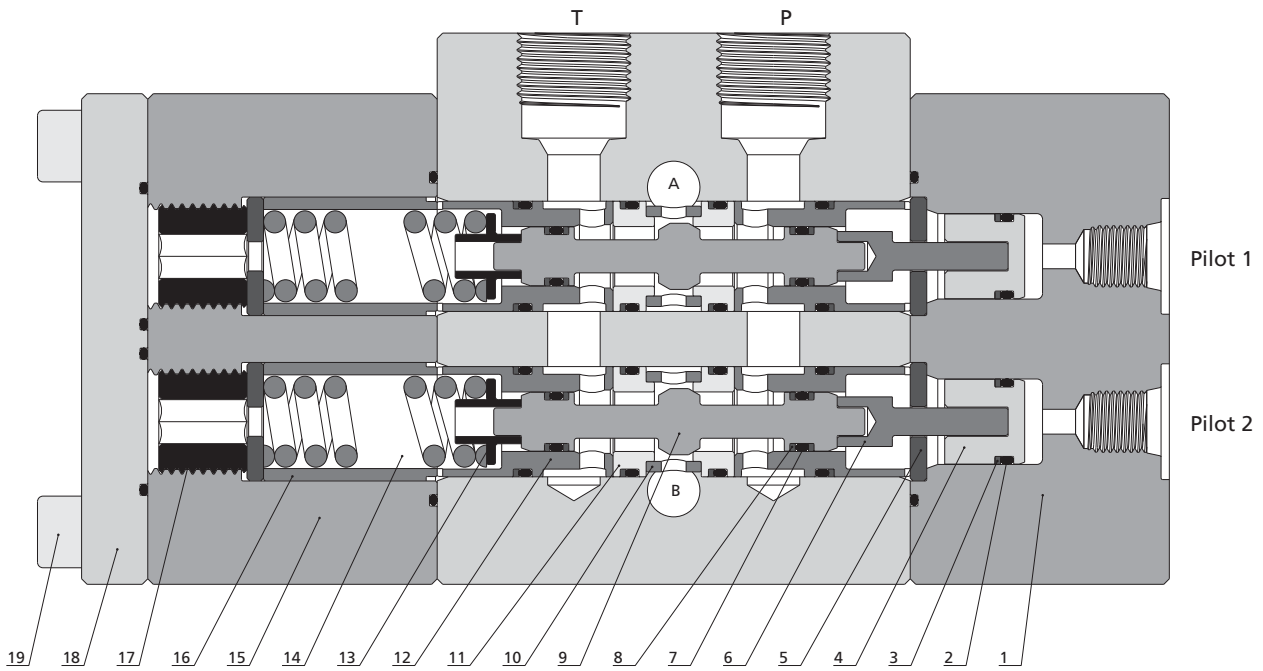
Subsea Hydraulic Directional Control Valves

Features

- ⦿ Working pressure up to 20,000 psig (1379 bar)
- ⦿ Pilot working pressure: 3,000 psig (207 bar)
- ⦿ Maximum external pressure: 6,000 psig (414 bar)
- ⦿ NBR O-ring for operation from 0°F to 250°F (-17.8°C to 121°C), other O-ring materials available
- ⦿ High tensile 316 stainless steel for valve body
- ⦿ NBR O-rings seal to provide excellent oil resistance
- ⦿ Easy to connect, switch off and reverse between different flow channels
- ⦿ Hydraulic remote control for easy operation
- ⦿ Bolt connection for easy disassembly and maintenance
- ⦿ Low impact performance to maximize cycle life
- ⦿ Suitable for application with oil or water
- ⦿ Orifice size: 0.25", 0.375"
- ⦿ Maximum water depth: 13,800 ft. (4200 m)



Standard Materials of Construction



Medium & High Pressure Fittings and Tubing
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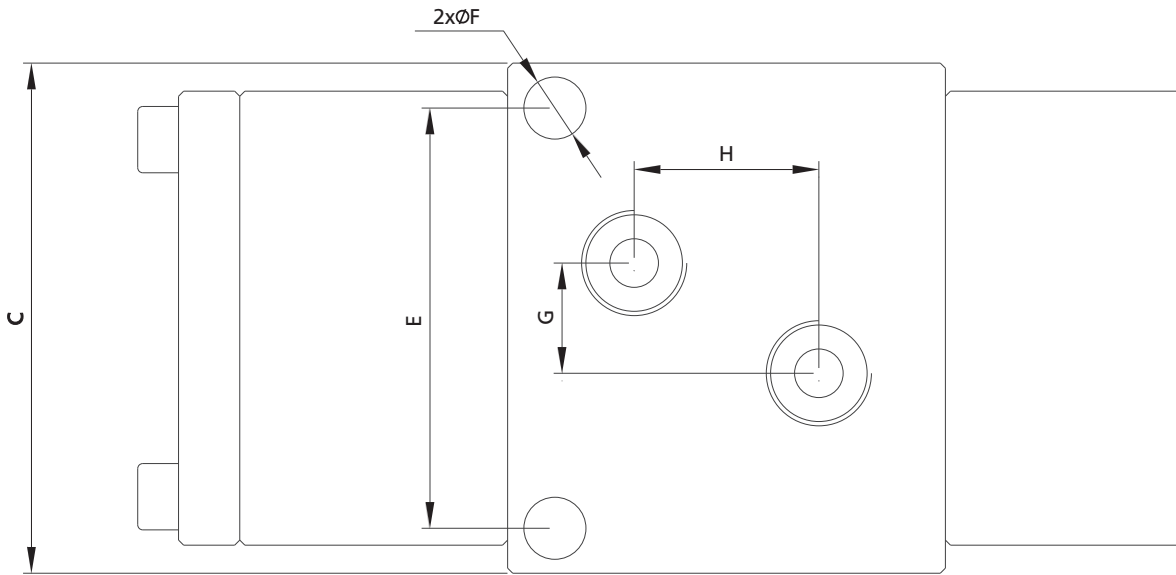
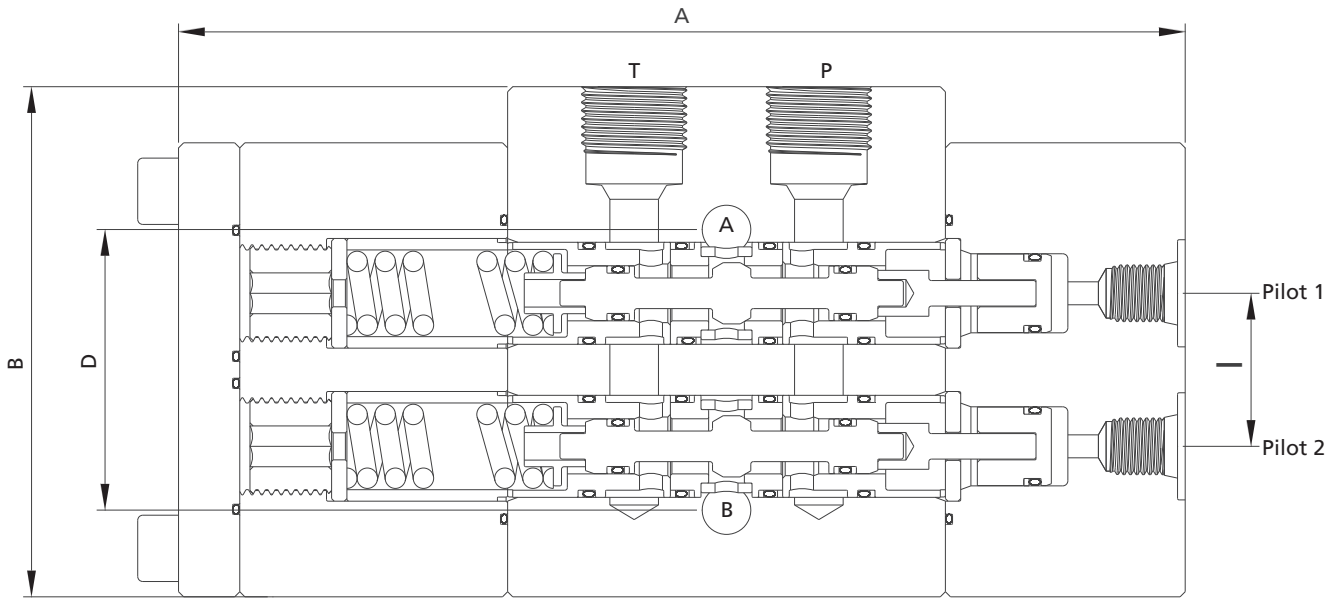
F-25 Subsea Valves

Medium & High Pressure Fittings and Tubing
Quick Couplings
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Line Filters
Sour Service Products
Subsea Valves
Tools and Installation Instructions
Technical Information

Item	Component	Material Grade/ASTM specification
1	Gland	F316/A182
2	O-Ring	NBR
3	Retaining Ring	PTFE/ASTM D1710
4	Piston	316 SS/A479
5	Gasket	316 SS/ASTM A479
6	Connection Block	316 SS/ASTM A479
7	<i>O-Ring</i>	<i>NBR</i>
8	<i>Retaining Ring</i>	<i>PEEK</i>
9	<i>Stem</i>	<i>S17400/A564</i>
10	<i>Pad</i>	<i>S17400/A564</i>
11	<i>Seat</i>	<i>316 SS/ASTM A479</i>
12	<i>Bush</i>	<i>S17400/A564</i>
13	Connection Block	316 SS/ASTM A479
14	Spring	S17700/A313
15	Gland	F316/A182
16	Bush	S17400/A564
17	Screw	316 SS/ASTM A479
18	Gland	F316/A182
19	Locking Screw	316 SS

Wetted components listed in italics.

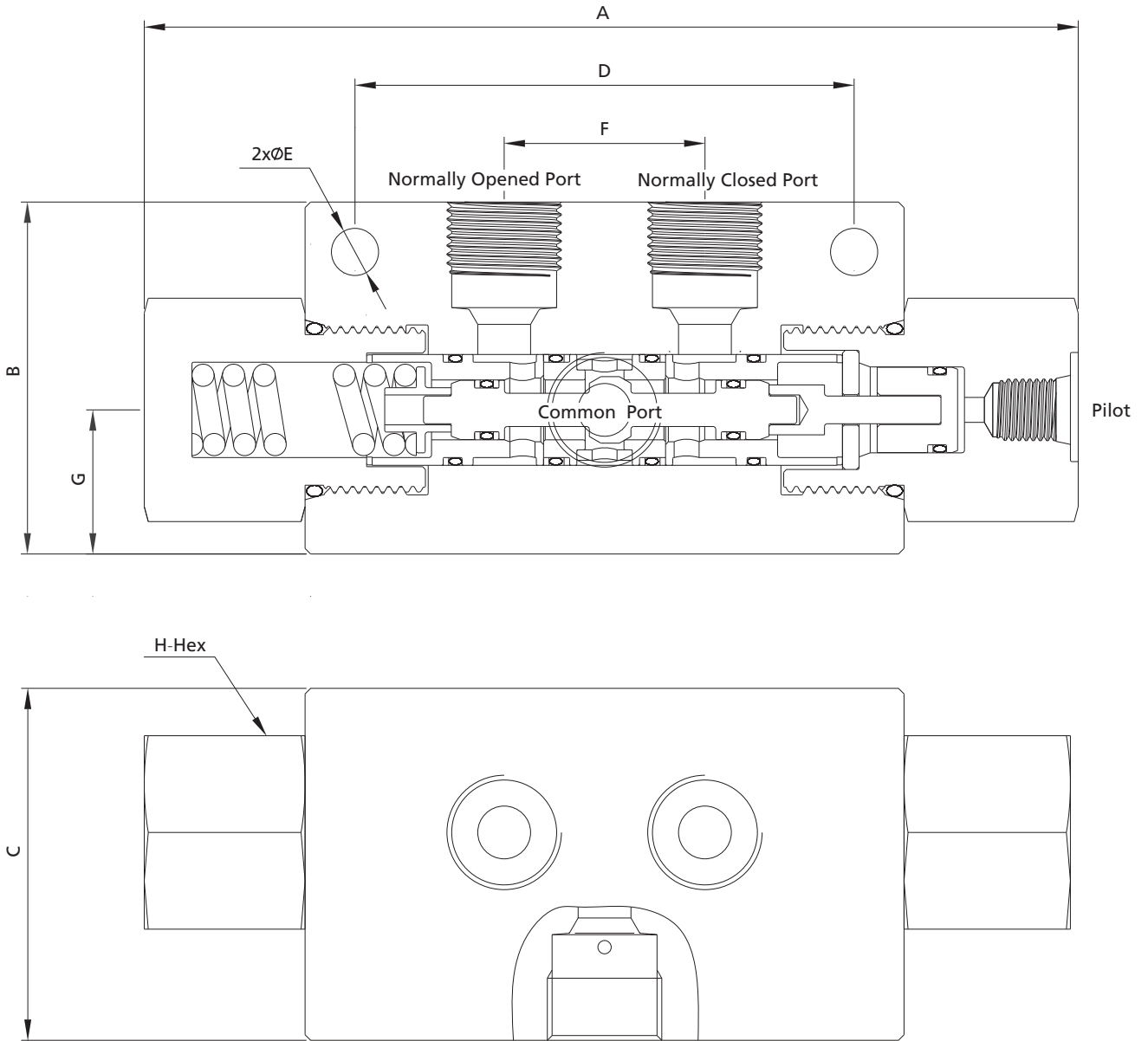
Ordering Information and Dimensions



3-position, 4-way

Ordering Number	Dimensions, in. (mm)										Working Pressure psig (bar)
	A	B	C	D	E	F	G	H	I	Orifice	
15SDCSS-3P4W-2FH9-US7	6.70 (170.3)	3.50 (88.9)	3.50 (88.9)	1.74 (44.2)	2.82 (71.1)	0.41 (10.5)	0.76 (19.4)	1.13 (28.6)	1.00 (25.4)	0.25 (6.35)	15,000 (1034)
15SDCSS-3P4W-2FH9-6-US7	7.20 (183)	3.54 (90)	3.74 (95)	1.26 (32)	3.19 (81)	0.33 (8.5)	1.02 (26)	1.10 (28)	1.10 (28)	0.375 (9.53)	
20SDCSS-3P4W-2FH9-6-US7	7.26 (184.5)	3.78 (96)	4.13 (105)	1.34 (34)	3.50 (89)	0.33 (8.5)	1.02 (26)	1.50 (38)	1.10 (28)	0.375 (9.53)	20,000 (1379)

F-27 Subsea Valves



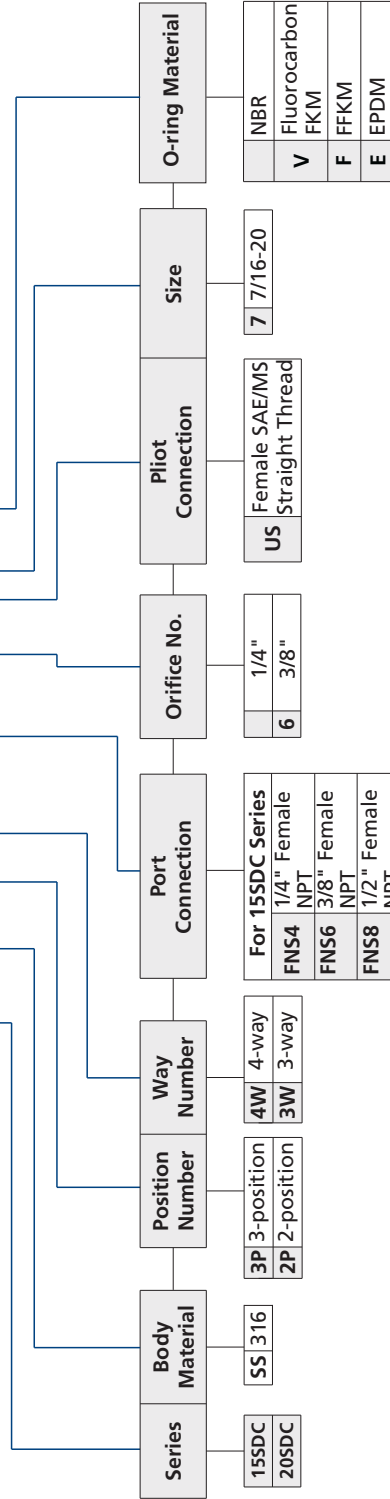
2-position, 3-way

Ordering Number	Dimensions, in. (mm)									Working Pressure psig (bar)
	A	B	C	D	E	F	G	H	Orifice	
15SDCSS-2P3W-2FH9-US7	5.81 (147.5)	2.28 (58)	2.28 (58)	3.15 (80)	0.33 (8.5)	1.30 (33)	0.87 (22)	1.38 (34.9)	0.25 (6.35)	15,000 (1034)
15SDCSS-2P3W-2FH9-6-US7	6.93 (176)	2.56 (65)	2.56 (65)	3.70 (94)	0.33 (8.5)	1.42 (36)	1.02 (26)	1.63 (41.28)	0.375 (9.53)	
20SDCSS-2P3W-2FH9-6-US7	6.93 (176)	2.56 (65)	2.56 (65)	3.70 (94)	0.33 (8.5)	1.42 (36)	1.02 (26)	1.63 (41.28)	0.375 (9.53)	20,000 (1379)

Medium & High Pressure Fittings and Tubing
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Ordering Number Description

20SDCSS - 3P4W - 2FH9 - 6 - US7 - V



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

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

Medium & High Pressure Fittings and Tubing	Quick Couplings	Medium & High Pressure Valves	Line Filters	Sour Service Products	Subsea Valves	Tools and Installation Instructions	Technical Information
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