10C, 10CO Series: 10,000 psig (690 bar)

15C, 15CO Series: 15,000 psig (1034 bar)

20C, 20CO Series: 20,000 psig (1379 bar)

60C, 60CO Series: 60,000 psig (4137 bar)







Contents

10C Series

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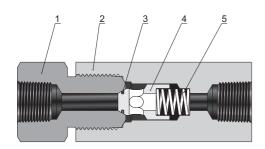


10C Series: 10,000 psig (690 bar) Pipe O-Ring Check Valves

Features

- O Cracking pressure: 14 psig~26 psig (0.97 bar~1.79 bar)
- © Fluorocarbon FKM O-ring for operation from 0°F to 400°F (-17.8°C to 204°C); other materials of O-rings available
- Provide 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)
- © Resilient O-ring seat design ensures noise-free closing and reliable reverse flow prevention

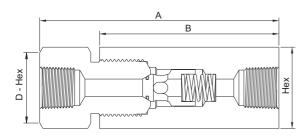
Standard Materials of Construction



Item	Component	Material Grade
1	Cover Gland	316 SS
2	Valve Body	316 SS
3	O-Ring	Fluorocarbon FKM
4	Poppet	316 SS
5	Spring	300 Series Stainless Steel
	Lubricant	Molybdenum Disulfide/Fluorinated-Based

Wetted components listed in italics.

Ordering Information and Dimensions



Ordering	Ordering	Orifice	Cv	Γ	Dimensio	ns, in. (mr	Working Pressure	
Number	Connection	in. (mm)	CV	Α	В	D - Hex	Hex	psig (bar)
10CSS-FNS12	FNS12	0.52 (13.21)	4.70	6.11 (155.3)	4.75 (120.7)	1.5 (38.1)	1.75 (44.5)	10,000 (690)
10CSS-FNS16	FNS16	0.69 (17.53)	7.40	7.33 (186.2)	5.75 (146.1)	1.75 (44.5)	1.88 (47.8)	10,000 (690)

Notes: 1. For other pipe connections, please refer to 15C Series Pipe O-Ring Check Valves for details.

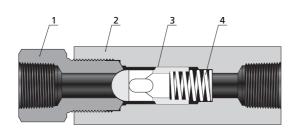


10CO Series: 10,000 psig (690 bar) Pipe Ball Check Valves

Features

- Working temperature range: -110°F to 400°F (-79°C to 204°C)
- O Prevent reverse flow where leak-tight shut-off is not mandatory (not for use as relief valve)
- O An integral design of the ball and poppet to assure positive, in-line seating without "chatter".
 Poppet designed essentially for axial flow with minimum pressure drop
- Optional materials of cover gland and ball poppet for longer life

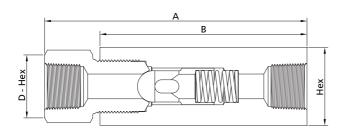
Standard Materials of Construction



Item	Component	Material Grade
1	Cover Gland	316 SS
2	Valve Body	316 SS
3	Ball Poppet	S17400 SS
4	Spring	300 Series Stainless Steel
	Lubricant	Molybdenum Disulfide/Fluorinated-Based

Wetted components listed in italics.

Ordering Information and Dimensions



Ordering	Connection	Orifice	Cv	C	Dimension	ns, in. (mr	Working Pressure	
Number	umber Connection in. (mm)	in. (mm)		Α	В	D - Hex	Hex	psig (bar)
10COSS-FNS12	FNS12	0.52 (13.21)	4.70	6.11 (155.3)	4.75 (120.7)	1.5 (38.1)	1.75 (44.5)	10,000 (690)
10COSS-FNS16	FNS16	0.69 (17.53)	7.40	7.33 (186.2)	5.75 (146.1)	1.75 (44.5)	1.88 (47.8)	10,000 (690)

Notes: 1. For other pipe connections, please refer to 15CO Series Pipe Ball Check Valves for details.

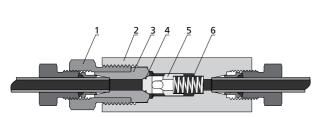


15C Series: 15,000 psig (1034 bar) O-Ring Check Valves

Features

- O Cracking pressure: 14 psig~26 psig (0.97 bar~1.79 bar)
- © Fluorocarbon FKM O-ring for operation from 0°F to 400°F (-17.8°C to 204°C); other materials of O-rings available
- Tubing sizes available in 1/4", 3/8" and 1/2"
- Provide 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)
- © Resilient O-ring seat design ensures noise-free closing and reliable reverse flow prevention

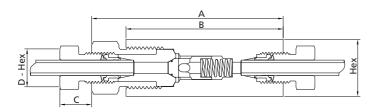
Standard Materials of Construction



Component	Material Grade
Cover Gland	316 SS
Valve Body	316 SS
Cover	316SS
O-Ring	Fluorocarbon FKM
Poppet	316 SS
Spring	300 Series Stainless Steel
Lubricant	Molybdenum Disulfide/Fluorinated-Based
	Cover Gland Valve Body Cover O-Ring Poppet Spring

Wetted components listed in italics.

Ordering Information and Dimensions



Ordering	Ordering Number Connection Orifice in. (mm)		Cv		Dime	Working Pressure			
Number		in. (mm)	CV	Α	В	С	D - Hex	Hex	psig (bar)
15CSS-DFF4	DFF4	0.188 (4.78)	0.63	3.35 (85)	2.72 (69.2)	0.52 (13.3)	0.63 (16.0)	0.81 (20.6)	15,000 (1034)
15CSS-DFF6	DFF6	0.250 (6.35)	1.70	3.72 (94.6)	3.13 (79.6)	0.53 (13.5)	0.75 (19.1)	1.00 (25.4)	15,000 (1034)
15CSS-DFF8	DFF8	0.36 (9.12)	2.30	4.41 (112.0)	3.68 (93.5)	0.60 (15.3)	0.93 (23.6)	1.38 (35.1)	15,000 (1034)



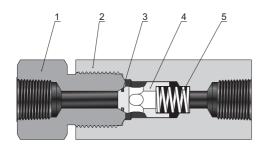
Pipe O-Ring Check Valves

Features

- Cracking pressure: 14 psig~26 psig (0.97 bar~1.79 bar)
- © Fluorocarbon FKM O-ring for operation from 0°F to 400°F (-17.8°C to 204°C); other materials of O-rings available
- © Provide 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)
- © Resilient O-ring seat design ensures noise-free closing and reliable reverse flow prevention

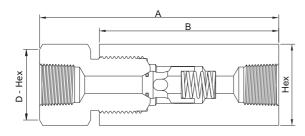
Standard Materials of Construction



Item	Component	Material Grade
1	Cover Gland	316 SS
2	Valve Body	316 SS
3	O-Ring	Fluorocarbon FKM
4	Poppet	316 SS
5	Spring	300 Series Stainless Steel
	Lubricant	Molybdenum Disulfide/Fluorinated-Based

Wetted components listed in italics.

Ordering Information and Dimensions



Ordering	Ordering	Orifice	C.	[Dimensio	n)	Working Pressure	
Number	Connection	in. (mm)	Cv	Α	В	D - Hex	Hex	psig (bar)
15CSS-FNS4	FNS4	0.12 (3.05)	0.28	3.30 (83.8)	2.38 (60.3)	0.94 (23.8)	0.94 (23.8)	15,000 (1034)
15CSS-FNS6	FNS6	0.22 (5.59)	0.84	3.95 (100.3)	2.88 (73.2)	1.13 (28.6)	1.13 (28.6)	15,000 (1034)
15CSS-FNS8	FNS8	0.36 (9.12)	2.30	5.07 (128.9)	3.88 (98.6)	1.38 (34.9)	1.38 (34.9)	15,000 (1034)



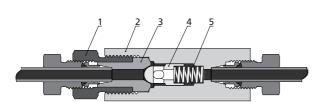
15CO Series: 15,000 psig (1034 bar)

Ball Check Valves

Features

- Working temperature range: -110°F to 800°F (-79°C to 427°C)
- O Tubing sizes available in 1/4", 3/8" and 1/2"
- O Prevent reverse flow where leak-tight shut-off is not mandatory (not for use as relief valve)
- An integral design of the ball and poppet to assure positive, in-line seating without "chatter".
 Poppet designed essentially for axial flow with minimum pressure drop
- Optional materials of cover and ball poppet for longer life

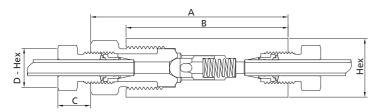
Standard Materials of Construction



Item	Component	Material Grade
1	Cover Gland	316 SS
2	Valve Body	316 SS
3	Cover	316 SS
4	Ball Poppet	S17400 SS
5	Spring	300 Series Stainless Steel
	Lubricant	Molybdenum Disulfide/Fluorinated-Based

Wetted components listed in italics.

Ordering Information and Dimensions



Ordering	Connection	Orifice	Cv		Dime	ensions, i	Working Pressure		
Number	Connection	in. (mm)	CV	Α	В	С	D - Hex	Hex	psig (bar)
15COSS-DFF4	DFF4	0.188 (4.78)	0.63	3.35 (85)	2.72 (69.2)	0.52 (13.3)	0.63 (16.0)	0.81 (20.6)	15,000 (1034)
15COSS-DFF6	DFF6	0.250 (6.35)	1.70	3.72 (94.6)	3.13 (79.6)	0.53 (13.5)	0.75 (19.1)	1.00 (25.4)	15,000 (1034)
15COSS-DFF8	DFF8	0.36 (9.12)	2.30	4.41 (112.0)	3.68 (93.5)	0.60 (15.3)	0.93 (23.6)	1.38 (35.1)	15,000 (1034)

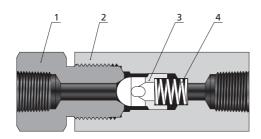


Pipe Ball Check Valves

Features

- Working temperature range: -110°F to 400°F (-79°C to 204°C)
- O Prevent reverse flow where leak-tight shut-off is not mandatory (not for use as relief valve)
- O An integral design of the ball and poppet to assure positive, in-line seating without "chatter".
 Poppet is designed essentially for axial flow with minimum pressure drop
- Optional materials of cover gland and ball poppet for longer life

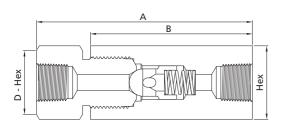
Standard Materials of Construction



Item	Component	Material Grade
1	Cover Gland	316 SS
2	Valve Body	316 SS
3	Ball Poppet	S17400 SS
4	Spring	300 Series Stainless Steel
	Lubricant	Molybdenum Disulfide/Fluorinated-Based

Wetted components listed in italics.

Ordering Information and Dimensions



Ordering		Orifice		D	imensior	ns, in. (mn	Working Pressure	
Number	Connection in. (mm)	in. (mm)	Cv	Α	В	D - Hex	Hex	psig (bar)
15COSS-FNS4	FNS4	0.12 (3.05)	0.28	3.30 (83.8)	2.38 (60.3)	0.94 (23.8)	0.94 (23.8)	15,000 (1034)
15COSS-FNS6	FNS6	0.22 (5.59)	0.84	3.95 (100.3)	2.88 (73.2)	1.13 (28.6)	1.13 (28.6)	15,000 (1034)
15COSS-FNS8	FNS8	0.36 (9.12)	2.30	5.07 (128.9)	3.88 (98.6)	1.38 (34.9)	1.38 (34.9)	15,000 (1034)

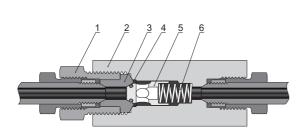


20C Series: 20,000 psig (1379 bar) O-Ring Check Valves

Features

- O Cracking pressure: 14 psig~26 psig (0.97 bar~1.79 bar)
- © Fluorocarbon FKM O-ring for operation from 0°F to 400°F (-17.8°C to 204°C); other materials of O-rings available
- Tubing sizes available from 1/4" to 1"
- Provide 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)
- © Resilient O-ring seat design ensures noise-free closing and reliable reverse flow prevention

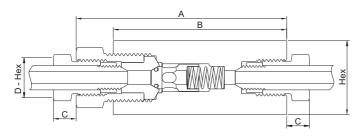
Standard Materials of Construction



Item	Component	Material Grade
1	Cover Gland	316 SS
2	Valve Body	316 SS
3	Cover	316 SS
4	O-Ring	Fluorocarbon FKM
5	Poppet	316 SS
6	Spring	300 Series Stainless Steel
	Lubricant	Molybdenum Disulfide/Fluorinated-Based
		<u> </u>

Wetted components listed in italics.

Ordering Information and Dimensions



Ordering	Connection	Orifice	C.		Dime	nsions, in	Working Pressure		
Number Conr	Connection	in. (mm)	Cv	Α	В	С	D - Hex	Hex	psig (bar)
20CSS-MF4	MF4	0.125 (3.18)	0.28	2.94 (74.7)	2.50 (63.5)	0.38 (9.7)	0.50 (12.7)	0.81 (20.6)	20,000 (1379)
20CSS-MF6	MF6	0.218 (5.54)	0.84	3.12 (79.3)	2.62 (66.6)	0.44 (11.2)	0.62 (15.8)	1.00 (25.4)	20,000 (1379)
20CSS-MF9	MF9	0.359 (9.12)	2.30	4.18 (106.2)	3.50 (88.9)	0.55 (14.0)	0.94 (23.9)	1.38 (35.1)	20,000 (1379)
20CSS-MF12	MF12	0.516 (13.11)	4.70	5.50 (139.7)	4.75 (120.7)	0.60 (15.2)	1.19 (30.2)	1.75 (44.5)	20,000 (1379)
20CSS-MF16	MF16	0.688 (17.48)	7.40	6.91 (175.6)	5.75 (146.1)	0.74 (18.8)	1.38 (35.1)	2.12 (53.9)	20,000 (1379)



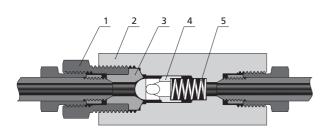
20CO Series: 20,000 psig (1379 bar)

Ball Check Valves

Features

- Working temperature range: -110°F to 1200°F (-79°C to 649°C)
- Tubing sizes available from 1/4" to 1"
- O Prevent reverse flow where leak-tight shut-off is not mandatory (not for use as relief valve)
- O An integral design of the ball and poppet to assure positive, in-line seating without "chatter".
 Poppet is designed essentially for axial flow with minimum pressure drop
- Optional materials of cover and ball poppet for longer life

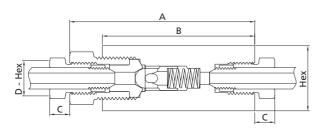
Standard Materials of Construction



Item	Component	Material Grade
1	Cover Gland	316 SS
2	Valve Body	316 SS
3	Cover	316 SS
4	Ball Poppet	S17400 SS
5	Spring	300 Series Stainless Steel
	Lubricant	Molybdenum Disulfide/Fluorinated-Based

Wetted components listed in italics.

Ordering Information and Dimensions



Ordering	Connection	Orifice	Cv		Dime	nsions, ir		Working Pressure	
Number	Connection	in. (mm)	Cv	Α	В	С	D - Hex	Hex	psig (bar)
20COSS-MF4	MF4	0.125 (3.18)	0.28	2.94 (74.7)	2.50 (63.5)	0.38 (9.7)	0.50 (12.7)	0.81 (20.6)	20,000 (1379)
20COSS-MF6	MF6	0.218 (5.54)	0.84	3.12 (79.3)	2.62 (66.6)	0.44 (11.2)	0.62 (15.8)	1.00 (25.4)	20,000 (1379)
20COSS-MF9	MF9	0.359 (9.12)	2.30	4.18 (106.2)	3.50 (88.9)	0.55 (14.0)	0.94 (23.9)	1.38 (35.1)	20,000 (1379)
20COSS-MF12	MF12	0.516 (13.11)	4.70	5.50 (139.7)	4.75 (120.7)	0.60 (15.2)	1.19 (30.2)	1.75 (44.5)	20,000 (1379)
20COSS-MF16	MF16	0.688 (17.48)	7.40	6.91 (175.6)	5.75 (146.1)	0.74 (18.8)	1.38 (35.1)	2.12 (53.9)	20,000 (1379)

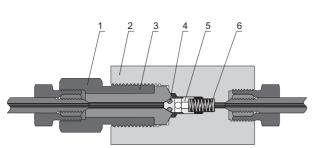


60C Series: 60,000 psig (4137 bar) O-Ring Check Valves

Features

- O Cracking pressure: 14 psig~26 psig (0.97 bar~1.79 bar)
- © Fluorocarbon FKM O-ring for operation from 0°F to 400°F (-17.8°C to 204°C); other materials of O-rings available
- O Tubing sizes available from 1/4" to 9/16"
- Provide 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)
- © Resilient O-ring seat design ensures noise-free closing and reliable reverse flow prevention

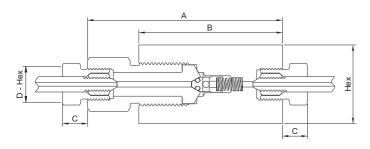
Standard Materials of Construction



Item	Component	Material Grade
1	Cover Gland	316 SS
2	Valve Body	316 SS
3	Cover	316 SS
4	O-Ring	Fluorocarbon FKM
5	Poppet	316 SS
6	Spring	300 Series Stainless Steel
	Lubricant	Molybdenum Disulfide/Fluorinated-Based

Wetted components listed in italics.

Ordering Information and Dimensions



Ordering Number Connection	Connection	Orifice			Dimen	sions, in	Working Pressure		
	in. (mm)	Cv	Α	В	С	D - Hex	Hex	psig (bar)	
60CSS-HF4	HF4	0.094 (2.39)	0.15	3.38 (85.9)	2.50 (63.5)	0.47 (11.9)	0.63 (16.0)	1.18 (30.0)	60,000 (4137)
60CSS-HF6	HF6	0.125 (3.18)	0.28	3.86 (98.1)	2.80 (71.1)	0.61 (15.5)	0.81 (20.6)	1.18 (30.0)	60,000 (4137)
60CSS-HF9	HF9	0.187 (4.75)	0.63	4.62 (117.4)	3.38 (85.9)	0.95 (24.1)	1.12 (28.5)	1.50 (38.1)	60,000 (4137)



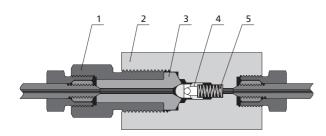
60CO Series: 60,000 psig (4137 bar)

Ball Check Valves

Features

- Working temperature range: -110°F to 1200°F (-79°C to 649°C)
- \bigcirc Tubing sizes available from 1/4" to 9/16"
- O Prevent reverse flow where leak-tight shut-off is not mandatory (not for use as relief valve)
- An integral design of the ball and poppet to assure positive, in-line seating without "chatter".
 Poppet is designed essentially for axial flow with minimum pressure drop
- Optional materials of cover and ball poppet for longer life

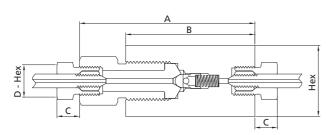
Standard Materials of Construction



Item	Component	Material Grade
1	Cover Gland	316 SS
2	Valve Body	316 SS
3	Cover	316 SS
4	Ball Poppet	S17400 SS
5	Spring	300 Series Stainless Steel
	Lubricant	Molybdenum Disulfide/Fluorinated-Based

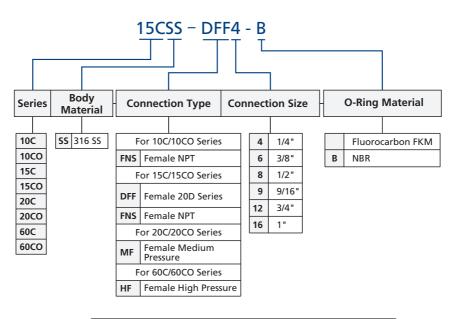
Wetted components listed in italics.

Ordering Information and Dimensions



Ordering Number Connection	C	Orifice	Cv		Dimer	Working Pressure			
	Connection	in. (mm)		Α	В	С	D - Hex	Hex	psig (bar)
60COSS-HF4	HF4	0.094 (2.39)	0.15	3.38 (85.9)	2.50 (63.5)	0.47 (11.9)	0.63 (16.0)	1.18 (30.0)	60,000 (4137)
60COSS-HF6	HF6	0.125 (3.18)	0.28	3.86 (98.1)	2.80 (71.1)	0.61 (15.5)	0.81 (20.6)	1.18 (30.0)	60,000 (4137)
60COSS-HF9	HF9	0.187 (4.75)	0.63	4.62 (117.4)	3.38 (85.9)	0.95 (24.1)	1.19 (30.16)	1.50 (38.1)	60,000 (4137)





Designator	O-Ring Material	Working Temperature Range, °F (°C)
	Fluorocarbon FKM	0 to 400 (-17.8 to 204)
В	NBR	-10 to 250 (-23 to 121)

Notes: 1. For more details regarding 20D Series and Medium/High Pressure connections, please see Connection Information on A-02.

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