



MEDIUM PRESSURE CHECK VALVES

CP / CPA SERIES

CP Series / CPA Series



CP / CPA CHECK VALVES

Poppet-style check valves for up to 3000 psi (206 bar) service on 1/4" and 1/2" threaded connections

- 100% factory tested with nitrogen
- Fixed or adjustable cracking pressures
- Standard materials: 316SS with fluorocarbon FKM O-ring and Brass with Buna N O-ring
- Cracking pressures from 1/3 to 600 psi (0.2 to 41 bar).

Pressure-Temperature Ratings

Material	316SS	Brass
Temperature, °F (°C)	Working Pressure, psig (bar)	
-10 (-23) to 100 (37)	3,000 (206)	3,000 (206)
200 (93)	2,575 (177)	2,600 (179)
250 (121)	2,450 (168)	2,405 (165)
300 (148)	2,325 (160)	-
375 (190)	2,185 (150)	-

Flow Data

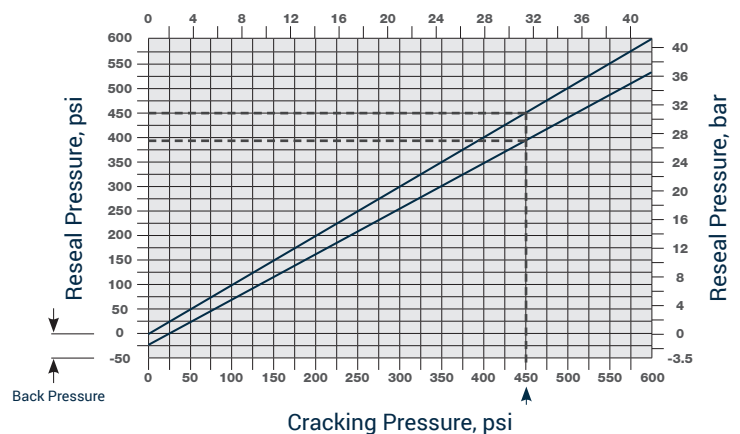
SERIES	MAXIMUM FLOW COEFFICIENT (C _v)
4CP/4CPA	0.35
8CP/8CPA	1.20

Cracking and Reseal Pressures at 70°F (20°C)

CP Series

NOMINAL CRACKING PRESSURE psi	CRACKING PRESSURE RANGE psi	RESEAL PRESSURE psi
1/3	UP TO 3	up to 20 back pressure
1	UP TO 4	up to 20 back pressure
10	7 to 13	up to 10 back pressure
25	21 to 29	5 or more inlet pressure

CPA Series Cracking Pressure, bar

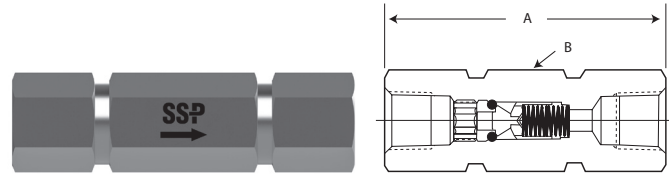




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DIMENSIONS



End Connections		Basic Ordering Number	Series	A	B
Inlet / Outlet	Size			Dimensions, in. (mm)	
FIXED CRACKING PRESSURE, CP SERIES					
Female NPT	1/4 in.	4CP4PF	4CP	2.41 (61.2)	3/4
	1/2 in.	8CP8PF	8CP	3.71 (94.2)	1 1/16
Male NPT	1/4 in.	4CP4PM	4CP	1.62 (41.1)	9/16
	1/2 in.	8CP8PM	8CP	2.28 (57.9)	7/8
Female/Male NPT	1/4 in.	4CP4PF4PM	4CP	2.29 (58.2)	3/4
Male/Female NPT	1/4 in.	4CP4PM4PF	4CP	1.75 (44.4)	3/4
	1/2 in.	8CP8PM8PF	8CP	2.83 (71.9)	1 1/16
Female ISO	1/4 in.	4CP4FRT	4CP	2.54 (64.5)	3/4
Male ISO	1/4 in.	4CP4MRT	4CP	1.62 (41.1)	9/16
ADJUSTABLE CRACKING PRESSURE, CPA SERIES					
Female NPT	1/4 in.	4CPA4PF	4CPA	2.98 (75.7)	3/4
Male NPT	1/4 in.	4CPA4PM	4CPA	1.62 (41.1)	9/16
	1/2 in.	8CPA8PM	8CPA	2.56 (65.0)	7/8
Male ISO	1/4 in.	4CPA4MRT	4CPA	1.62 (41.1)	9/16
	1/2 in.	8CPA8MRT	8CPA	2.56 (65.0)	7/8

PART NUMBER CONFIGURATION



MATERIAL DESIGNATOR: Stainless Steel - 316 / Brass - B

CP SERIES CRACKING PRESSURE, psi	DESIGNATOR
1/3	1/3
1	1
10	10
25	25

CPA SERIES CRACKING PRESSURE, psi	DESIGNATOR	O-RING MATERIAL	DESIGNATOR
3 to 50	3	FLUOROCARBON* FKM	V
50 to 150	50	BUNA N**	BN
150 to 350	150	ETHYLENE PROPYLENE	EP
350 to 600	350	KALREZ®	KZ

* Fluorocarbon FKM O-Ring comes standard on Stainless

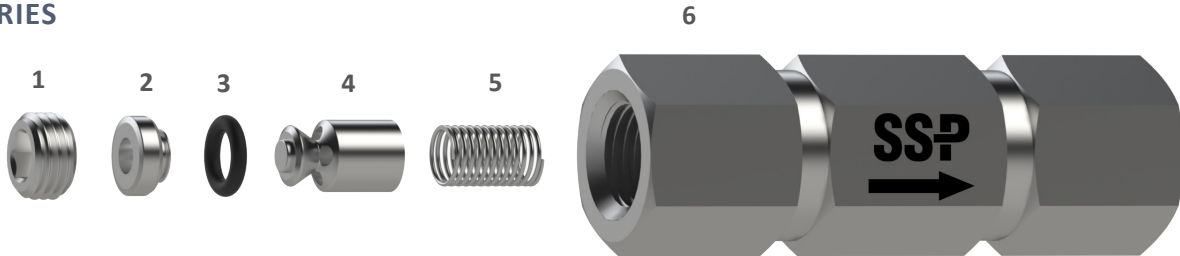
** Buna N O-Ring comes standard on Brass

(No need to add designator to part number)

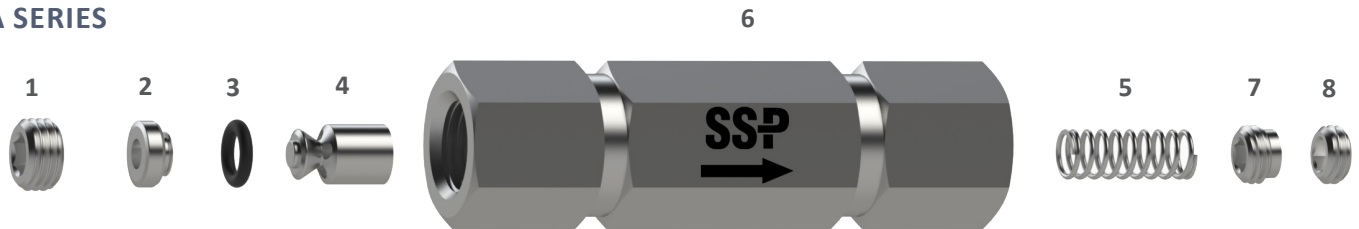


MATERIALS OF CONSTRUCTION

CP SERIES



CPA SERIES



COMPONENT	VALVE BODY MATERIALS		
	316 SS	BRASS	
		4CP & 8CP	4CPA & 8CPA
MATERIALS GRADE / SPECIFICATIONS			
1	SEAT SCREW	316 SS / ASTM A276 OR A479	
2	SEAT	316 SS / ASTM A479	
3	O-RING	FLUOROCARBON FKM	BUNA N
4	POPPET	316 SS / ASTM A479	
5	SPRING	302/316 SS	
6	BODY	316 SS / ASTM A479	BRASS 360 / ASTM B16 OR BRASS 345 / ASTM B453
7	ADJUSTABLE SCREW (CPA SERIES)	316 SS / ASTM A276	316 SS / ASTM A276
8	LOCKING SCREW (CPA SERIES)		
	LUBRICANT	PTFE-BASED	

ALL COMPONENTS ARE WETTED

ACCESSORIES

Deflector Caps are anodized aluminum machined caps which thread onto a ¼” or ½” male NPT check valve outlet. Deflector caps are color-coded to identify type of gas or hazard property, or the different colors can be used to identify system working pressure, valve cracking pressure, or other non-safety relief application.

DEFLECTOR CAPS		
Color	Ordering Code	
	1/4”	1/2”
Green	4CP-DC-GN	8CP-DC-GN
Red	4CP-DC-RD	8CP-DC-RD

Note (symbol): Deflector Caps are not to be used for code-rated relief applications.



Field Modification Kits are available to rebuild or change the cracking pressure of an existing Medium Pressure Check Valve (CP/CPA series only). This work should be done by a qualified valve repair or automation facility only. Field Modification Kits include work instructions for disassembly, replacing, and reassembly, and a replacement o-ring, spring, and label to apply over the factory-assigned part number indicating the new cracking pressure for the valve.

FIELD MODIFICATION KITS		
Configuration	Part Number	Description
4CP Non-Adjustable Spring Kits	4CP-SK-1/3	Spring Kit 4CP 1/3#
	4CP-SK-1	Spring Kit 4CP 1#
	4CP-SK-10	Spring Kit 4CP 10#
	4CP-SK-25	Spring Kit 4CP 25#
4CPA Adjustable Spring Kits	4CPA-SK-3-50	Spring Kit 4CPA 3-50#
	4CPA-SK-50-150	Spring Kit 4CPA 50-150#
	4CPA-SK-150-350	Spring Kit 4CPA 150-350#
	4CPA-SK-350-600	Spring Kit 4CPA 350-600#

FIELD MODIFICATION KITS		
Configuration	Part Number	Description
8CP Non-Adjustable Spring Kits	8CP-SK-1/3	Spring Kit 8CP 1/3#
	8CP-SK-1	Spring Kit 8CP 1#
	8CP-SK-10	Spring Kit 8CP 10#
	8CP-SK-25	Spring Kit 8CP 25#
8CPA Adjustable Spring Kits	8CPA-SK-3-50	Spring Kit 8CPA 3-50#
	8CPA-SK-50-150	Spring Kit 8CPA 50-150#
	8CPA-SK-150-350	Spring Kit 8CPA 150-350#
	8CPA-SK-350-600	Spring Kit 8CPA 350-600#

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