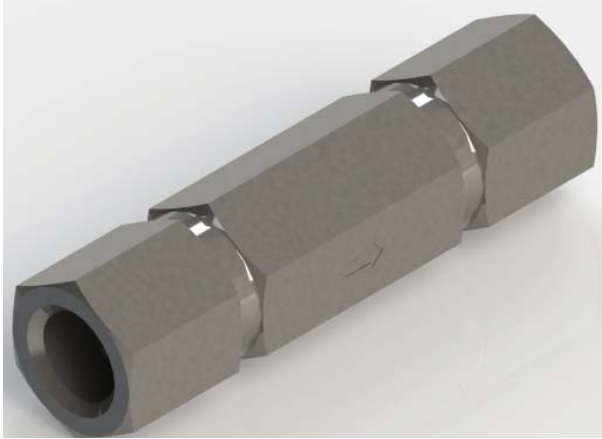




MEDIUM PRESSURE CHECK VALVES CP / CPA SERIES

8250 Boyle Parkway Twinsburg, Ohio U.S.A. 44087 mysspusa.com 1.330.425.4250

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 Viton™ o-ring and 360 brass with Buna-N o-ring
- Cracking pressures from 1/3 to 600 psi (0.2 to 41 bar).

CRACKING AND RESEAL PRESSURES

NOMINAL CRACKING PRESSURE PSI	CRACKING PRESSURE RANGE PSI	DOWNSTREAM RESEAL PRESSURE PSI	UPSTREAM RESEAL PRESSURE PSI
1/3	UP TO 3	up to 20	**
1	UP TO 4	up to 20	**
5	2 to 8	up to 15	**
10	7 to 13	up to 10	**
15	11 to 19	up to 5	**
20	16 to 24	up to 5	**
25	21 to 29	*	15
30	26 to 34	*	19
35	31 to 39	*	23
40	36 to 44	*	27
45	40 to 50	*	31
50	45 to 55	*	35
55	49 to 61	*	39
60	54 to 66	*	43
70	63 to 77	*	51
75	67 to 83	*	55
80	72 to 88	*	59
85	77 to 94	*	63
90	81 to 99	*	67
100	90 to 110	*	75
3 TO 50		up to 20	35
50 TO 150		35	110
150 TO 350		110	300
350 TO 600		300	540

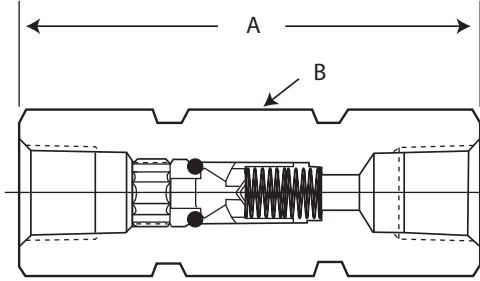
** Spring force insufficient to reseal without aid of downseal pressure

* A reduction in pressure is sufficient for spring force to reseal without the aid of downstream pressure

PRESSURES / TEMPERATURES & FLOW

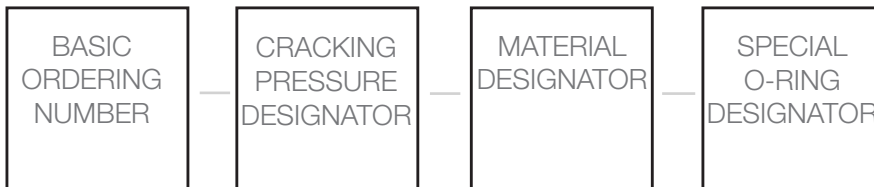
SERIES	MAXIMUM FLOW COEFFICIENT (C _v)	WORKING PRESSURE AT -10 TO 100°F (-23 TO 37°C) PSI (BAR)
4CP	0.35	3000 (206)
8CP	1.20	
4CPA	0.35	3000 (206)
8CPA	1.20	

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



CP Series CRACKING PRESSURE psi	DESIGNATOR
1/3	1/3
1	1
5	5
10	10
15	15
20	20
25	25
30	30
35	35
40	40
45	45
50	50
55	55
60	60
70	70
75	75
80	80
85	85
90	90
100	100

MATERIAL DESIGNATOR: Stainless Steel - 316 / Brass - B

O-RING MATERIAL	DESIGNATOR
VITON*	V
BUNA N**	BU
ETHYLENE PROPYLENE	EP
KALREZ®	KZ

* Viton O-Ring comes standard on Stainless

** Buna N O-Ring comes standard on brass

(no need to add designator to part number)

CPA Series CRACKING PRESSURE psi	DESIGNATOR
3 to 50	3
50 to 150	50
150 to 350	150
350 to 600	350

MATERIALS OF CONSTRUCTION

CP SERIES



CPA SERIES



COMPONENT		VALVE BODY MATERIALS		
		316 SS	BRASS	
		MATERIALS GRADE / SPECIFICATIONS		
1	SEAT SCREW	316 SS / ASTM A276 OR A479	BRASS 360 / ASTM B16	
2	SEAT	316 SS / ASTM A479		
3	O-RING	VITON	BUNA N	
4	POPPET	316 SS / ASTM A479	316 SS / ASTM A276	
5	SPRING	302/316 SS		
6	BODY	316 SS / ASTM A479	BRASS 360 / ASTM B16	
7	ADJUSTABLE SCREW (CPA SERIES)	316 SS / ASTM A276	-	316 SS / ASTM A276
8	LOCKING SCREW (CPA SERIES)			
LUBRICANT		SILICONE-BASED AND PTFE-BASED (CP SERIES) PTFE-BASED (CPA SERIES)	SILICONE-BASED AND PTFE-BASED	PTFE-BASED
ALL COMPONENTS ARE WETTED				

ACCESSORIES

Deflector Caps are anodized aluminum machined caps which thread onto a 1/4" or 1/2" male NPT check valve outlet. Deflector caps are color-coded to Gas Association Standard EN 1089-3 which can be used 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	Condition	Ordering Code	
		1/4"	1/2"
Bright Green	Inert	4CP-DC-GN	8CP-DC-GN
Red	Flammable	4CP-DC-RD	8CP-DC-RD
Maroon	Acetylene	4CP-DC-MR	8CP-DC-MR
Dark Green	Argon	4CP-DC-DG	8CP-DC-DG
Black	Nitrogen	4CP-DC-BK	8CP-DC-BK
Grey	Carbon Dioxide	4CP-DC-GY	8CP-DC-GY
Brown	Helium	4CP-DC-BN	8CP-DC-BN



condition per EN 1089-3

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	4CPSK-1/3	Spring Kit 4CP 1/3#
	4CPSK-1	Spring Kit 4CP 1#
	4CPSK-5	Spring Kit 4CP 5#
	4CPSK-10	Spring Kit 4CP 10#
	4CPSK-20	Spring Kit 4CP 20#
	4CPSK-25	Spring Kit 4CP 25#
	4CPSK-30	Spring Kit 4CP 30#
	4CPSK-35	Spring Kit 4CP 35#
	4CPSK-40	Spring Kit 4CP 40#
	4CPSK-45	Spring Kit 4CP 45#
	4CPSK-50	Spring Kit 4CP 50#
	4CPSK-55	Spring Kit 4CP 55#
	4CPSK-60	Spring Kit 4CP 60#
	4CPSK-70	Spring Kit 4CP 70#
	4CPSK-75	Spring Kit 4CP 75#
	4CPSK-80	Spring Kit 4CP 80#
	4CPSK-85	Spring Kit 4CP 85#
	4CPSK-90	Spring Kit 4CP 90#
	4CPSK-100	Spring Kit 4CP 100#
4CPA Adjustable Spring Kits	4CPASK-3-50	Spring Kit 4CPA 3-50#
	4CPASK-50-150	Spring Kit 4CPA 50-150#
	4CPASK-150-350	Spring Kit 4CPA 150-350#
	4CPASK-350-600	Spring Kit 4CPA 350-600#

FIELD MODIFICATION KITS		
Configuration	Part Number	Description
8CP Non-Adjustable Spring Kits	8CPSK-1/3	Spring Kit 8CP 1/3#
	8CPSK-1	Spring Kit 8CP 1#
	8CPSK-5	Spring Kit 8CP 5#
	8CPSK-10	Spring Kit 8CP 10#
	8CPSK-20	Spring Kit 8CP 20#
	8CPSK-25	Spring Kit 8CP 25#
	8CPSK-30	Spring Kit 8CP 30#
	8CPSK-35	Spring Kit 8CP 35#
	8CPSK-40	Spring Kit 8CP 40#
	8CPSK-45	Spring Kit 8CP 45#
	8CPSK-50	Spring Kit 8CP 50#
	8CPSK-55	Spring Kit 8CP 55#
	8CPSK-60	Spring Kit 8CP 60#
	8CPSK-70	Spring Kit 8CP 70#
	8CPSK-75	Spring Kit 8CP 75#
	8CPSK-80	Spring Kit 8CP 80#
	8CPSK-85	Spring Kit 8CP 85#
	8CPSK-90	Spring Kit 8CP 90#
	8CPSK-100	Spring Kit 8CP 100#
8CPA Adjustable Spring Kits	8CPASK-3-50	Spring Kit 8CPA 3-50#
	8CPASK-50-150	Spring Kit 8CPA 50-150#
	8CPASK-150-350	Spring Kit 8CPA 150-350#
	8CPASK-350-600	Spring Kit 8CPA 350-600#



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