



# One-Piece Body Check Valves

CV4 Series

- ❖ Maximum working pressure up to 3000 psig (206 bar)
- ❖ Working temperature from -10°F to 400°F (-23°C to 204°C)
- ❖ One-piece body design
- ❖ Cracking pressure: 1/3 to 25 psig (0.02 to 1.7 bar)
- ❖ 316 stainless steel, brass and alloy 400 body material

## Features

- ❖ Maximum working pressure up to 3000 psig (206 bar)
- ❖ Working temperature from -10°F to 400°F (-23°C to 204°C)
- ❖ One-piece body design
- ❖ Fully contained O-ring seal
- ❖ Cracking pressure: 1/3 to 25 psig (0.02 to 1.7 bar)
- ❖ 316 stainless steel, brass and alloy body material
- ❖ Variety of end connections

## Cracking Pressure

Series	Nominal Cracking Pressure psig (bar)	Cracking Pressure Range psig (bar)
CV4	1/3 (0.03)	0 to 3 (0 to 0.21)
	1 (0.07)	0 to 4 (0 to 0.28)
	10 (0.69)	7 to 13 (0.49 to 0.90)
	25 (1.7)	21 to 29 (1.5 to 2.0)

## Pressure-Temperature Ratings

Ratings based on fluorocarbon FKM O-rings in 316 stainless steel valves and Buna N O-rings in brass valves.

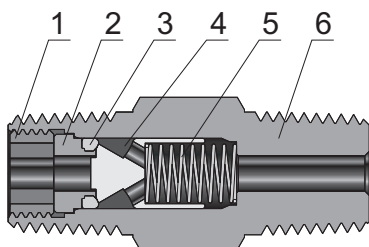
Material	316 S.S.	Brass
Temperature °F (°C)	Working Pressure, psig (bar)	
-10 (-23) to 100 (37)	3000 (206)	3000 (206)
200 (93)	2575 (177)	2600 (179)
250 (121)	2450 (168)	2405 (165)
300 (148)	2325 (160)	—
400 (204)	2185 (150)	—

## Seal Materials

Seal Material	Temperature Range °F (°C)
Buna N	-10 to 250 (-23 to 121)
Ethylene propylene	-50 to 300 (-45 to 148)
Fluorocarbon FKM	-10 to 400 (-23 to 204)
Neoprene	-40 to 250 (-40 to 121)

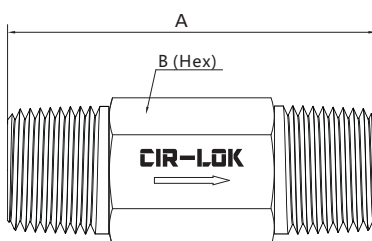
## Standard Materials of Construction

### CO Series



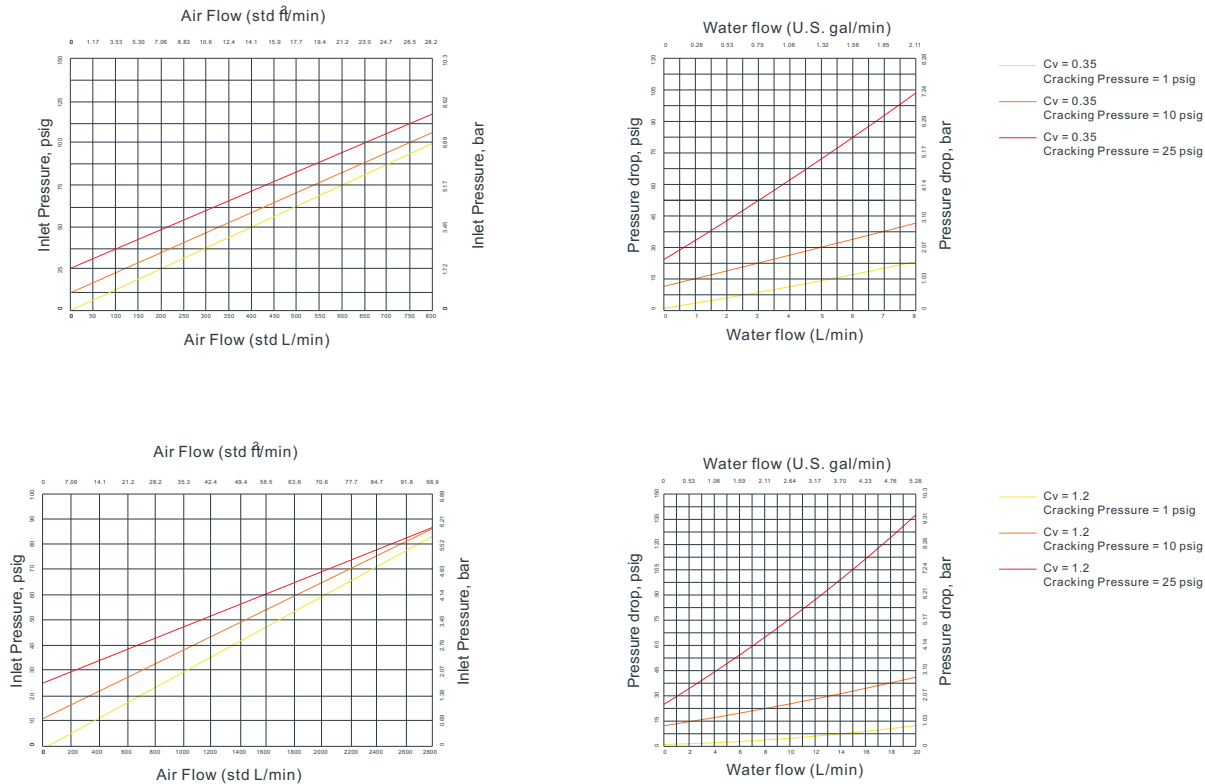
Component	Valve Material Grade/ASTM Specification	
	316 S.S.	Brass
1 Insert Locking Screw	316 S.S./A276 or A479	Brass C36000/B16
2 Insert	316 S.S./A479	Brass C36000/B16
3 O-ring	Fluorocarbon FKM	Buna N
4 Poppet	316 S.S./A479	Brass C36000/B16
5 Spring	302 S.S./A313	
6 Body	316 S.S./A479	Brass C36000/B16

### Dimensions



Basic Ordering Number	Connection Type and Size	CV	Dimension, in. (mm)	
			A	B
CV4-FNPT4-	1/4 Female NPT	0.35	2.41 (61.2)	3/4 (19.05)
CV4-FNPT8-	1/2 Female NPT	1.20	3.71 (94.2)	1 1/16 (26.99)
CV4-NPT4-	1/4 Male NPT	0.35	1.62 (41.1)	9/16 (14.29)
CV4-NPT8-	1/2 Male NPT	1.20	2.28 (57.9)	7/8 (22.23)
CV4-FBT4-	1/4 Female BSPT	0.35	2.54 (64.5)	3/4 (19.05)
CV4-MBT4-	1/4 Male BSPT	0.35	1.62 (41.1)	9/16 (14.29)

## Flow Data at 70 °F(20 °C)



## How to Order

Series	Inlet Type	Inlet Size	Outlet Type	Outlet Size	Seal Material	Cracking Pressure	Body Material		
CV4—	FNPT Female NPT	2 1/8 in.	Same as inlet type and inlet size		V Fluorocarbon FKM	1 1 psig	316 316 S.S.		
	NPT Male NPT	4 1/4 in.				2 1/3 psig	316L 316L S.S.		
	FBT Female BSPT	6 3/8 in. or 6 mm	If outlet and inlet are the same, eliminate the outlet designator		B Buna N	3 3 psig	304 304 S.S.		
	MBT Male BSPT	8 1/2 in. or 8 mm				10 10 psig	304L 304L S.S.		
	FMS Female ISO 261					N Neoprene	25 25 psig	A400 Alloy 400	
	MS Male ISO 261						Z Kalrez		A20 Alloy 20
	FBP Female BSPP								A600 Alloy 600
	MBP Male BSPP								A825 Alloy 825
					A276 Alloy C276				
						DU7 Duplex 2507			
						BR Brass			