

Adjustable cracking pressure Check Valves

CV6 Series



- ❖ Maximum working pressure up to 3000 psig (206 bar)
- ❖ Working temperature from -10°F to 400°F (-23°C to 204°C)
- ❖ Adjustable spring sets cracking pressure
- ❖ Cracking pressure: 3 to 600 psig (0.21 to 41.3 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)
- ❖ Fully contained O-ring seal
- ❖ Adjustable spring sets cracking pressure
- ❖ Locking screw maintains setting
- ❖ Cracking pressure: 3 to 600 psig (0.21 to 41.3 bar)
- ❖ 316 stainless steel, brass and alloy body material
- ❖ Variety of end connections

Cracking Pressure

Series	Nominal Cracking Pressure psig (bar)
CV6	3 to 50 (0.21 to 3.50)
	50 to 150 (3.50 to 10.4)
	150 to 350 (10.4 to 24.2)
	350 to 600 (2.40 to 41.4)

Pressure-Temperature Ratings

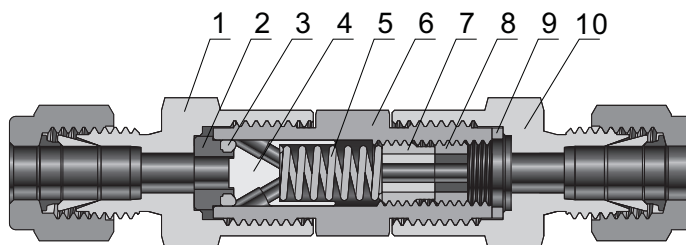
Ratings based on fluorocarbon FKM O-rings in 316 stainless steel valves and Buna N O-rings in brass valves.

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)	—
375 (190)	2185 (150)	—

Seal Materials

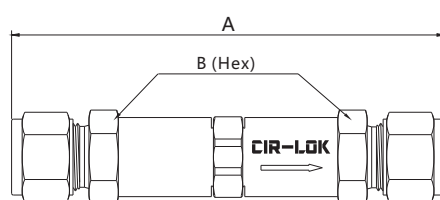
Seal Material	Temperature Range °F (°C)
Buna N	-10 to 250 (-23 to 121)
Ethylene propylene	-50 to 300 (-45 to 148)
Fluorocarbon FKM	-10 to 400 (-23 to 204)
Neoprene	-40 to 250 (-40 to 121)

Standard Materials of Construction



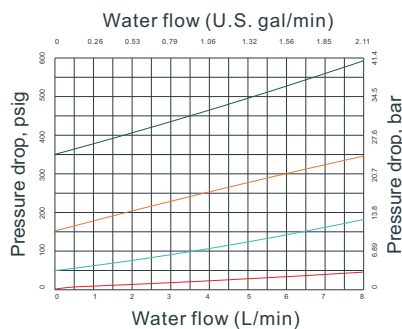
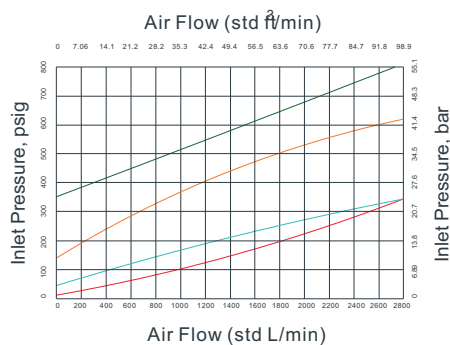
Component	Valve Material Grade/ASTM Specification	
	316 S.S.	Brass
1 Inlet Body	316 S.S./A479	Brass C36000/B16
2 Insert	316 S.S./A479	Brass C36000/B16
3 O-ring	Fluorocarbon FKM	Buna N
4 Poppet	316 S.S./A479	Brass C36000/B16
5 Spring	302 S.S./A313	
6 Center Body	316 S.S./A479	Brass C36000/B16
7 Adjusting Screw	316 S.S./A276	
8 Locking Screw	316 S.S./A276	
9 Gasket	PTFE-coated 316 S.S./A276	
10 Outlet Body	316 S.S./A479	Brass C36000/B16

Dimensions



Basic Ordering Number	Connection Type and Size	CV	Dimension, in. (mm)	
			A	B
CV6-F4-	1/4" CIR-LOK	0.37	3.23 (82.0)	5/8 (15.88)
CV6-M6-	6 mm CIR-LOK			
CV6-M8-	8 mm CIR-LOK			
CV6-GFS4-	1/4" Male GFS		3.09 (78.5)	

Flow Data at 70 °F(20 °C)



- Cv = 0.37
Cracking Pressure = 3 psig
- Cv = 0.37
Cracking Pressure = 50 psig
- Cv = 0.37
Cracking Pressure = 150 psig
- Cv = 0.37
Cracking Pressure = 350 psig

How to Order

CV6 — F4 — M6 — V — 50 — 316

Series	Inlet Type	Inlet Size	Outlet Type	Outlet Size	Seal Material	Cracking Pressure	Body Material
CV6	F Fractional Tube Fitting M Metric Tube Fitting GFS Male GFS Fitting	2 1/8 in.	Same as inlet type and inlet size		V Fluorocarbon FKM B Buna N E Ethylene propylene N Neoprene Z Kalrez	50 3 to 50 psig	316 316 S.S.
		4 1/4 in.				150 50 to 150 psig	316L 316L S.S.
		6 3/8 in. or 6 mm				350 150 to 350 psig	304 304 S.S.
		8 1/2 in. or 8 mm				600 350 to 600 psig	304L 304L S.S. A400 Alloy 400 A20 Alloy 20 A600 Alloy 600 A825 Alloy 825 A276 Alloy C276 DU7 Duplex 2507 BR Brass